

Regulatory Analysis Form (Completed by Promulgating Agency) (All Comments submitted on this regulation will appear on IRRC's website)	INDEPENDENT REGULATORY REVIEW COMMISSION RECEIVED Independent Regulatory Review Commission September 14, 2026			
(1) Agency Department of Environmental Protection				
(2) Agency Number: 7 Identification Number: 576	IRRC Number: 3498			
(3) PA Code Cite: 25 Pa. Code Chapter 109				
(4) Short Title: Safe Drinking Water Revised Lead and Copper Rule Improvements				
(5) Agency Contacts (List Telephone Number and Email Address): Primary Contact: Laura Campbell, 717.783.8727, laurcampbe@pa.gov Secondary Contact: Lauren Imgrund, 717.772.4052, limgrund@pa.gov				
(6) Type of Rulemaking (check applicable box): ☒ Proposed Regulation ☐ Final Regulation ☐ Final Omitted Regulation	☐ Emergency Certification Regulation ☐ Certification by the Governor ☐ Certification by the Attorney General			
(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less) The proposed rulemaking strengthens regulations to reduce lead and copper in drinking water provided by public water systems, including: requiring water systems to develop and complete a service line inventory to locate lead pipes in their distribution system and replace all lead service lines; lowering the lead action level; expanding corrosion control treatment (CCT) requirements; improving tap sampling; monitoring lead in the drinking water of schools and child care facilities; increasing public education; and adding requirements to reduce lead exposure. In order to retain primary enforcement responsibility (primacy) for public water systems in Pennsylvania under the federal Safe Drinking Water Act (42 U.S.C. §§ 300f—300j-27), the Department of Environmental Protection (Department) must adopt all new and revised National Primary Drinking Water Regulations. This rulemaking would allow the Department to retain primacy by ensuring that Pennsylvania's regulations are at least as stringent as those promulgated by the United States Environmental Protection Agency (EPA) in the National Primary Drinking Water Regulations for Lead and Copper: Improvements, also known as the Lead and Copper Rule Improvements (2024 federal LCRI).				
(8) State the statutory authority for the regulation. Include <u>specific</u> statutory citation. This proposed rulemaking is being made under the authority of section 4 of the Pennsylvania Safe Drinking Water Act (35 P.S. § 721.4), which grants the Environmental Quality Board (EQB) the authority to adopt rules and regulations governing the provision of drinking water to the public, and section 1920-A				

of The Administrative Code of 1929 (71 P.S. § 510-20), which authorizes the EQB to promulgate rules and regulations necessary for the performance of the work of the Department.

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as any deadlines for action.

Yes, the proposed amendments are mandated by federal regulation. The National Primary Drinking Water Regulations are legally enforceable, federal primary standards and treatment techniques that apply to public water systems. Primary standards and treatment techniques protect public health by limiting the levels of contaminants that are allowed in finished drinking water delivered by public water systems to consumers. States that have been granted primacy from the EPA for public water systems under the federal Safe Drinking Water Act are responsible for enforcing these standards and must maintain regulations that are at least as stringent as federal regulations as a condition of retaining primacy. States with primacy are required to adopt requirements to oversee implementation of the updated federal regulations within 2 years of publication of the National Primary Drinking Water Regulations, unless an extension is approved by the EPA. Accordingly, this proposed rulemaking incorporates the 2024 federal LCRI, published at 89 FR 86418 (October 30, 2024), into Pennsylvania's safe drinking water regulations.

The 2024 federal LCRI strengthens public health protection and improves implementation of existing regulations in the following areas: development of an inventory to locate lead pipes in a distribution area; replacement of lead service lines within 10 years after the November 1, 2027, implementation date; expansion of CCT requirements; improved tap sampling; lowering of the lead action level; protection of children in schools and child care facilities; expansion of public education and outreach; and increased protections to reduce lead exposure all which will further protect public health.

(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

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 public water systems by reducing their exposure to lead in drinking water.

These revisions strengthen public health protection and improve implementation of the lead and copper regulations in the following areas: development of an inventory to locate lead pipes in the distribution system; replacement of all lead service lines within 10 years after the implementation date of the 2024 federal LCRI; expanding CCT requirements; improve tap sampling; lower the lead action level; protection of children in schools and child care facilities; expansion of public education and outreach; and increased protections to reduce lead exposure.

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 pregnant women, infants and young children, and heart disease in adults. Infants, young children and pregnant women are especially vulnerable to the physical, cognitive, and behavioral effects of lead due to their sensitive developmental stages. The most common sources of lead in drinking water are from corrosion of lead pipes, faucets and fixtures. When a home is served by a lead service line, the most significant source of lead is the service line itself. The EPA estimates that drinking water makes up at least 20% of a person's total exposure to lead.

The EPA quantifies and monetizes health risk reduction from lead exposure by estimating the decrease in lead exposures accruing to both children and adults from the installation and reoptimization of CCT, lead service line replacement, the implementation of point-of-use filter devices, and the provision of pitcher filters. Benefits are quantified by estimating and monetizing the resulting increases in intelligence quotient (IQ) in children from birth to 7 years of age, and reductions in incidents of low birth weight or attention-deficit/hyperactivity disorder (ADHD) in children, and adult cardiovascular disease premature mortality. The EPA estimates the quantifiable annual benefits of the 2024 federal LCRI nationwide range from \$13.5 billion to \$25.1 billion (in 2022 dollars at a 2% discount rate).

The 2024 federal LCRI regulations apply to approximately 66,947 community water systems (CWS) and nontransient noncommunity water systems (NTNCWS) nationwide. There are 2,911 CWSs and NTNCWSs in Pennsylvania that serve approximately 11 million people. These 2,911 water systems represent 4.35% of the CWSs and NTNCWSs nationally. Multiplying the EPA's expected nationwide benefits of \$13.5 billion to \$25.1 billion annually by 4.35%, the annual benefits in this Commonwealth range from \$587.25 million to \$1.09 billion.

There are additional nonquantified health benefits to children and adults that will be realized as a result of this proposed rulemaking. The nonquantifiable benefits include avoidance in reductions in IQs, cases of ADHD in children, lower birth weights, and cardiovascular disease in adults. The requirements to issue public education, and to make service line inventories and replacement plans publicly available will encourage the public to reduce their exposure to lead in drinking water. Increased use of CCT may also have a beneficial secondary effect of reducing copper levels and avoiding some negative health impacts of copper, such as acute gastrointestinal conditions and health effects associated with Wilson's disease. Other nonquantifiable benefits of increased use of CCT and improved tap sampling procedures include extending the use of plumbing parts and appliances, reduced plumbing maintenance costs, reduced treated water loss due to leaks in a distribution system, and reduced potential liability and damages from broken pipes. These health benefits were not quantified in the EPA's analysis of 2024 federal LCRI. As a result of these requirements, the nonquantifiable health benefits that the EPA evaluated include reduced incidence of renal effects, reproductive and developmental effects (apart from ADHD), immunological effects, neurological effects (apart from children's IQ), and cancer.

(11) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

Yes. The proposed provisions in this rulemaking are more stringent than federal standards in the following areas:

- To help identify areas with the greatest potential for lead contamination of drinking water and most in need of remediation, the National Primary Drinking Water Regulations: Lead and Copper Rule Revisions (2021 federal LCRR) published at 86 FR 4198 (January 15, 2021) (2021 federal LCRR) and 2024 federal LCRI require that all water systems complete and maintain a service line inventory that includes lead connectors. In this proposed rulemaking, the Department incorporated lead connectors into the definition of "GRR service line—galvanized requiring replacement service line" in § 109.1 (relating to definitions) by defining it as a service line that is iron or steel piping that has been dipped in zinc to prevent corrosion and rusting and is currently, or ever was, downstream of any portion of a lead service line, a lead connector, or is currently downstream of a lead status unknown service line. The EPA definition of a "GRR service line" states that the service line needs to be replaced if the line ever was or is currently downstream of any portion of a

lead service line but does not include a lead connector. The definition of “GRR service line” in this proposed rulemaking is more expansive, and therefore more stringent, than the definition of that term in the corresponding federal regulations. However, the EPA recognizes the public health concern associated with lead connectors because the 2024 federal LCRI requires systems to identify lead connectors in their distribution system and replace them when they are encountered. Including lead connectors in the definition of a “GRR service line” provides greater public health protection.

Research has shown that galvanized lines absorb lead from upstream sources. (McFadden, M. et al. (2011). “Contributions to drinking water lead from galvanized iron corrosion scales.” *Journal—American Water Works Association*, 103, 76—89. <https://doi.org/10.1002/j.1551-8833.2011.tb11437.x>.) Research has also shown that most lead goosenecks, pigtails and connectors are connected to a galvanized service line because galvanized lines are more ridged than other service line materials such as lead, copper and plastic. (HDR, Engineering Inc. (2009). “An analysis of the correlation between lead released from galvanized iron piping and the contents of lead in drinking water.” archive.epa.gov/region03/dclead/web/pdf/galvanized%20project%20report.pdf.) (Clark, B. N., et al. (2015). “Lead release to drinking water from galvanized steel pipe coatings.” *Environmental Engineering Science*, 32(8), 713—721, doi:[10.1089/ees.2015.0073](https://doi.org/10.1089/ees.2015.0073).)

- Section 109.1109 (relating to service line and connector inventory, service line replacement plan and sample site plan) specifies that the service line and connector inventory be submitted in a format that is acceptable to the Department, which is not a requirement in the corresponding federal regulations. The Department created a service line inventory form to ensure all water systems provide the required information in a consistent format that can be efficiently incorporated into the Department’s existing data system and then reported to the EPA. This additional language ensures that CWSs and NTNCWSs provide the Department with an inventory using the Department’s form or in a manner that can be converted to the form, which enables the Department to efficiently report the required service line information to the EPA. This provision is consistent with other existing provisions where water systems are required to submit information in a format acceptable to the Department.
- The 2024 federal LCRI requires water system to identify a validation pool of all service lines categorized as “nonlead.” The 2024 federal LCRI further requires water systems to evaluate a representative number of service lines in their validation pool to ensure nonlead service lines have been appropriately categorized. Some nonlead service lines may be excluded from this validation pool if the water system has records showing the service line was installed after June 19, 1988, or after the compliance date of a State or local law prohibiting the use of service lines that do not meet the 1986 definition of “lead free” in accordance with section 1417 of the federal Safe Drinking Water Act (42 U.S.C. § 300g-6), as amended in 1986 (Public Law 99-339, 100 Stat. 651), whichever is earlier. The effective date of the Plumbing System Lead Ban and Notification Act (35 P.S. §§ 723.1—723.17) was January 6, 1991. Therefore, § 109.1109 uses January 6, 1991, as the date after 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 January 6, 1991.
- Under the 2024 federal LCRI, water systems that are required to complete a feasibility study must do so and recommend the optimized or reoptimized CCT within 18 months after the end of the tap sampling period in which the system exceeded the lead or copper action level. The state must then approve/designate optimal CCT or reoptimized CCT within 6 months after the previous step, so

the water system must obtain state approval of CCT within 24 months. Large and medium water systems with lead service lines that exceed the lead action level must also complete a pipe rig loop study within 12 months after the end of the tap sampling period in which they exceeded the action level (prior to completing the CCT feasibility study). Therefore, under the 2024 federal LCRI, these systems have 30 months to submit the CCT feasibility study and 36 months after the end of the tap sampling period in which the system exceeded the lead action level to obtain state approval of CCT.

The Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1—721.17) and Chapter 109 (relating to safe drinking water) include permitting requirements for modification of water system facilities. The pipe rig loop study and CCT feasibility study requirement of the 2024 federal LCRI is in addition to these existing permitting provisions. To accommodate the 2024 federal LCRI pipe rig loop and CCT studies alongside the Commonwealth's permitting requirements, § 109.1102 (relating to action levels and treatment technique requirements) requires the feasibility study to be submitted with the permit application within 16 months (or within 28 months for systems that must conduct pipe rig loop studies). The Department must still issue the construction permit within 24 (or 36) months, which is still consistent with the schedule in the 2024 federal LCRI. These interim deadlines in the proposed rulemaking allow the Department sufficient time to review the CCT feasibility study and construction permit application.

- Many water systems have achieved a reduced monitoring frequency under existing regulations in Chapter 109, Subchapter K (relating to lead and copper), which are based on the Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper, also known as the Lead and Copper Rule (1991 federal LCR), published by the EPA at 56 FR 26460 (June 7, 1991). The 2024 federal LCRI allows water systems to remain on this reduced monitoring frequency after its implementation date of November 1, 2027, if the water system meets the required criteria and receives a written determination from the state. Systems that are not granted a reduced monitoring frequency must conduct standard 6-month monitoring starting with the January—June 2028 period. The Department's approval of reduced monitoring is based upon a review of monitoring, treatment, and other relevant information submitted by the system. However, the 2024 federal LCRI does not specify the deadline by which systems must request the reduced monitoring frequency. Therefore, § 109.1103 (relating to monitoring requirements) clarifies that water systems need to submit a request to the Department to remain on a reduced monitoring frequency by December 31, 2027, demonstrating they have met the criteria for reduced monitoring. This deadline allows time for the Department's review and determination and provides sufficient time for those water systems that are not granted reduced monitoring to complete the required standard monitoring by June 30, 2028.
- The 2024 federal LCRI mandates water quality parameter monitoring at the entry point and within the distribution system to verify CCT treatment is effectively operated and maintained. Although the National Primary Drinking Water Regulations require water quality parameter monitoring at the entry point at least every 2 weeks, § 109.1103 requires entry point monitoring each week. Weekly monitoring ensures the water quality parameters are maintained within specified ranges, that overfeeding or underfeeding of treatment chemicals is not occurring and that water quality is consistently maintained. The longer the period in between monitoring, the more likely a water quality parameter excursion may occur. These excursions increase the likelihood of elevated lead levels, so for CCT to be effective at reducing lead levels, it requires consistent proper operation and routine water quality parameter monitoring.

- The 1991 federal LCR included language that limited entry point sampling for water quality parameters at ground water systems with CCT to be at sites that are representative of water quality and treatment conditions throughout the system. This provision was not included in Chapter 109 when 1991 federal LCR provisions were incorporated, and it is not being included with this proposed rulemaking. CCT can be effective at reducing lead levels, but it requires consistent proper operation and water quality parameter monitoring to ensure it is effective at reducing lead levels. Water systems using groundwater may have multiple sources with different water chemistry that require different types of CCT to meet the 2024 federal LCRI treatment technique. Therefore, water quality parameter monitoring at all entry points is necessary to ensure all treatment processes are effectively treating the sources to achieve acceptable finished water quality.
- The 1991 federal LCR required source water monitoring be conducted at the entry point for lead or copper each time a 90th percentile value exceeds the action level because source water quality can change over time. However, the 2024 federal LCRI only requires source water monitoring at the entry point for lead or copper the first time the 90th percentile value exceeds the action level. Section 109.1103 retains the requirement for source water monitoring at the entry point for lead or copper each time a 90th percentile value exceeds the action level. High levels of lead or copper in source water could require modifications to existing treatment processes or installation of new treatment to remove lead or copper from the source water. Therefore, source water monitoring after each action level exceedance is necessary to ensure water systems are responding appropriately, maintaining and properly operating existing treatment or taking steps to add treatment when necessary.

(12) How does this regulation compare with those of the other states? How will this affect Pennsylvania's ability to compete with other states?

All 56 states and territories with primacy for public water systems under the federal Safe Drinking Water Act will need to adopt regulations requiring public water systems to comply with the EPA's National Primary Drinking Water Regulations. Therefore, this proposed rulemaking is not expected to negatively affect Pennsylvania's ability to compete with other states.

(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No, this proposed rulemaking will not affect other regulations of the Department or other State agencies.

(14) Describe the communications with and solicitation of input from the public, any advisory council/group, small businesses and groups representing small businesses in the development and drafting of the regulation. List the specific persons and/or groups who were involved. ("Small business" is defined in Section 3 of the Regulatory Review Act, Act 76 of 2012.)

The draft proposed rulemaking was presented to the Public Water System Technical Assistance Center (PWS-TAC) Board on February 12, 2026. The PWS-TAC Board includes representatives from a broad array of drinking water professional associations, the Office of Consumer Advocate, and stakeholder organizations, including public interest and environmental organizations and building and land development interests.

The PWS-TAC Board recommended the following based on their review of the draft proposed annex:

- The definition of Connector be edited to add the following text as the 2nd sentence: “The connector may be made from a variety of materials.” The revised definition would be “Connector—Also referred to as a gooseneck or pigtail, is a short segment of piping, not exceeding 3 feet, which can be bent and used for connections between service piping. The connector may be made from a variety of materials. Lead connectors exceeding 3 feet are considered to be part of a lead service line. Lead connectors may result in a galvanized service line needing replacement if the lead connector is upstream of the galvanized line.”

The Department agreed with the recommendation and revised the definition of “connector” to include the recommended language.

- DEP should work with EPA to ensure clarity and strong language in technical guidance on how the 90th percentile value is to be calculated when more than the minimum number of samples are received from sample sites of lower Tiers, and are analyzed and reported. The guidance should include examples of what sample results are to be ranked and included in the calculation, especially when results from Tier 3, 4 or 5 sites that are not included in the calculation are higher than results from Tier 1 or 2 sites.

The Department agrees with the recommendations for additional guidance, including examples for the 90th percentile calculation and will develop this guidance based on the guidance that is being developed by the EPA.

- Subparagraph (iv) in § 109.1102(b)(1.1), which reads “Large water systems with CCT that exceed the lead PQL but do not exceed the lead or copper action level may be required by the Department to complete the reoptimized [optimal CCT] steps in paragraph (2.1).” should be deleted because DEP has the authority under subparagraph (ii) to require water systems to reoptimize [optimal CCT] . DEP should also create written SOPs and training for staff to ensure consistent implementation in determining when systems should be required to reoptimize [optimal CCT].

The Department agreed with the recommendation and deleted draft § 109.1102(b)(1.1)(iv) from the proposed rulemaking. The Department also agrees with the recommendation for additional guidance.

- In the schedule for [optimal CCT] outlined in paragraphs § 109.1102(b)(2.1) and § 109.1102(b)(2.2), DEP should combine Step 2 – Complete a CCT feasibility study for reoptimization with Step 3 – Obtain a permit for construction or modification of [optimal CCT] to show DEP is consistent with the federal timeline of 36 months.

The Department added language to § 109.1102(b)(2.1) and (2.2) to show it is consistent with the federal timelines of 24 or 36 months, as applicable.

Although the optimal CCT Steps 2 and 3 are not combined, the language in Step 3 was revised to state the deadline by which a water system needs to obtain a construction permit for optimal CCT, which is either 24 months or 36 months from the end of the monitoring period in which the action level was exceeded. Water systems that do not need to conduct a pipe rig loop study must obtain a construction permit for optimal CCT within 24 months. Water systems that need to conduct a pipe rig loop study must obtain a construction permit for optimal CCT within 36 months. These

deadlines match the 2024 federal LCRI. The Department agrees with the PWS-TAC Board's recommendations for additional guidance from the EPA, including examples for the 90th percentile calculation and written standard operating procedures for staff.

- The [water quality parameter] monitoring language in § 109.1103(b.1) that states “from taps used to provide water for human consumption” should be changed to match the federal language.

The Department agreed with the recommendation and revised § 109.1103(b.1) as suggested.

- The Department and 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 [public water systems] in meeting the LCRI requirements for notification and sampling in schools and child care facilities.

The Department will discuss this recommendation with EPA Region 3 and may follow up with the Department of Education and the Department of Human Services, as appropriate.

(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?

A review of the federal Small Business Size Regulations at 13 CFR Part 121 provides a standard for determining what constitutes a small business for the North American Industry Classification System (NAICS) category relating to public water systems. A public water system falls within NAICS category 221310, Water Supply and Irrigation Systems, which comprises establishments primarily engaged in operating water treatment plants and/or operating water supply systems. The federal small size standard for this NAICS category is annual receipts of not more than \$41 million.

The Pennsylvania Safe Drinking Water Act and Chapter 109 do not contain any requirements for the submission of financial records. As such, the Department has no way to estimate annual receipts of public water systems. The Department and the EPA have historically classified public water system size based on the number of persons served. For purposes of identifying small businesses affected by this proposed rulemaking, the Department used a population of 10,000 persons served as the threshold for determining the number of public water systems that could be considered a small business because that is a key population threshold for the 2024 federal LCRI provisions.

The 2024 federal LCRI provisions impact all 2,911 CWSs and NTNCWSs in Pennsylvania, which serve a population of approximately 11 million consumers. Of the 2,911 water systems to which this proposed rulemaking applies, 1,469 are privately owned or investor owned and can be considered a small business; 871 of these are CWSs and 598 are NTNCWSs.

Service Line Inventory

The 2024 federal LCRI builds upon the requirement in the 2021 federal LCRR for water systems to create an initial inventory, to annually update their inventory, and to identify the material of all service lines by the mandatory service line replacement deadline. Water systems are required to include lead connectors in their inventories and must implement a validation process to ensure the service line inventory is accurate.

Under the 2024 federal LCRI, all water systems are also required to make their service line inventory publicly available.

Lead Pipe Replacement Within 10 Years

Where present, lead service lines are the most significant source of lead in drinking water. Under the 2024 federal LCRI, all water systems with lead or galvanized requiring replacement (GRR) service lines must prepare a service line replacement plan which can facilitate the equitable replacement of these service lines by the replacement deadline. Water systems must replace all lead and GRR service lines under their control no later than 10 years after November 1, 2027, regardless of lead levels occurring in tap or other drinking water samples. Water systems with a high proportion of lead service lines may be eligible for a deferred deadline to complete full service line replacements if specific criteria are met. Replacing the lead and GRR service lines will significantly reduce the amount of lead in drinking water.

Expanding CCT Requirements

The EPA 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. CCT refers to methods such as alkalinity/pH adjustment or addition of corrosion inhibitors that water systems can take to reduce the leaching of lead and copper into drinking water from drinking water service lines and premise plumbing. Water systems without CCT must evaluate and install CCT if a 90th percentile lead or copper value exceeds the action level. Water systems with CCT are required to reoptimize CCT if a 90th percentile lead value exceeds the action level. Water systems must also operate and maintain optimal CCT and reoptimized CCT. The 2024 federal LCRI also provides alternatives to CCT for small systems, such as point-of-use treatment and replacement of lead bearing plumbing materials, because maintaining optimal CCT can be especially challenging for very small systems.

Improving Tap Sampling

Water systems are required to focus tap sample site selection on sites with lead service lines, where present, and follow new procedures to collect tap samples at these sites. Under the 2024 federal LCRI, water systems are required to collect first-sample and fifth-liter tap samples at sites with lead service lines and use the higher of the two values when determining compliance. This method will better represent water that has been stagnant both within the LSL and premise plumbing, which will help water systems better understand the effectiveness of their CCT.

Lowering the Lead Action Level

The 2024 federal LCRI lowers the lead action level from 0.015 mg/L to 0.010 mg/L. When a water system exceeds the lead action level, it is required to inform the public, take actions associated with CCT, and employ public education measures to reduce lead exposure.

Protection of Children in Schools and Child Care Facilities

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 testing for lead in drinking water, so these facilities may not have been tested. The 2024 federal LCRI requires all CWSs 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.

CWSs will be required to conduct drinking water sampling at each elementary school and child care facility they serve over a 5-year period, testing 20% of the facilities they serve each year, and the water system will be required to provide sampling results to the school or child care facility. This sampling serves as an initial sample set for lead risks within schools and child care facilities and, coupled with public education materials (such as information on steps the school or child care facility can take to reduce lead in the drinking water), are intended to encourage schools and child care facilities to take additional actions, including comprehensive sampling.

Strengthening Protections to Reduce Lead Exposure

Public education is one of the four components of the 1991 federal LCR. Public education, particularly when combined with other actions and policies to reduce public health hazards, is an effective way to improve public health by influencing people's knowledge, beliefs, and behaviors. Public education not associated with the action level can produce benefits by prompting consumers to take actions that reduce their exposure. In addition to the public education required whenever the lead 90th percentile compliance value exceeds the action level, the 2024 federal LCRI also requires water systems to conduct public education independent of lead levels such as: providing individual notices of tap sample results; providing notices to people served by known or potential lead and GRR service lines; outreach to encourage customer participation in full service line replacement; and notifications of service line disturbances. The 2024 federal LCRI also requires water systems with continually high lead levels to conduct additional outreach to consumers and provide pitcher filters or point-of-use devices certified to reduce lead in drinking water to all consumers. These additional actions can reduce consumer exposure to higher levels of lead in drinking water while the water system works to reduce systemwide lead levels through replacement of lead service lines and by installing or reoptimizing optimal CCT, which can take years to complete.

The estimated benefits of this proposed rulemaking are detailed in the response to question #10. The estimated costs of this proposed rulemaking are detailed in the response to question #17.

(16) List the persons, groups or entities, including small businesses, that will be required to comply with the regulation. Approximate the number that will be required to comply.

Please see the response to question #15.

(17) Identify the financial, economic and social impact of the regulation on individuals, small businesses, businesses and labor communities and other public and private organizations. Evaluate the benefits expected as a result of the regulation.

The estimated benefits expected as a result of the regulation are described in the response to question #10. The estimated costs are described below.

For the 2024 federal LCRI, the EPA estimates the nationwide total annual cost to CWSs and NTNCWSs to range from \$1.45 billion to \$1.95 billion (in 2022 dollars at a 2% discount rate). This EPA estimate accounts for rule implementation and administration, sampling, service line inventory, service line replacement, CCT, point-of-use program, and public outreach.

The EPA also evaluated nonquantified costs, which include temporary costs associated with service line replacement including: traffic congestion; increased probability of vehicular and pedestrian accidents; fire damage; and negative sanitation impacts resulting from the necessity to shut off water service to buildings and residences during service line replacement. The EPA further evaluated the nonquantifiable negative

environmental impacts the incremental phosphorus loadings to wastewater treatment plants and receiving waterbodies caused by the increased use of orthophosphate as a corrosion inhibitor.

There are approximately 66,947 CWSs and NTNCWSs nationwide; 2,911 (4.35%) of these water systems are located in Pennsylvania. Multiplying the EPA's national annual costs estimate range of \$1.45 billion to \$1.95 billion by 4.35% yields an annual cost estimate range for CWSs and NTNCWSs in Pennsylvania from \$63.04 million to \$85 million. This results in an estimated annual cost per public water system in Pennsylvania of \$21,656 to \$29,201.

Costs for water systems in Pennsylvania that do not have any lead or GRR service lines and that do not exceed an action level (and are therefore not required to install or reoptimize optimal CCT) are estimated to range from \$3,482 to \$3,973 annually. These costs include rule implementation and administration, monitoring, and public education and outreach. It is not possible to estimate how many systems may have these lower costs until after November 1, 2027, when water systems submit updated service line inventories that identify which systems will need to complete service line replacements and standard monitoring, which will identify which systems will need to install or reoptimize optimal CCT.

In addition to costs to water systems, the EPA estimated the annual costs to primacy agencies nationwide will range from \$25.8 million to \$27.7 million (in 2022 dollars at a 2% discount rate). There are 56 primacy agencies nationwide, so the annual cost for each primacy agency is estimated to range from \$460,714 to \$494,643. Primacy agency costs include work towards updating compliance programs for tracking 2024 federal LCRI compliance and reporting, training staff and water systems, taking enforcement actions, and reporting to the EPA.

(18) Explain how the benefits of the regulation outweigh any cost and adverse effects.

The estimated benefits of the regulation are also described in question #10. The estimated costs of the regulation are also described in question #17.

As estimated by the EPA, the quantifiable annual net benefits (benefits minus costs) range from \$12.025 billion to \$23.118 billion (in 2022 dollars at a 2% discount rate) nationally. Multiplying those estimated nationwide net benefits by 4.35%, the estimated annual net benefits in this Commonwealth range from \$523.09 million to \$1 billion. The EPA determined that the quantifiable and nonquantifiable benefits of the 2024 federal LCRI justify the quantifiable and nonquantifiable costs.

(19) Provide a specific estimate of the costs and/or savings to the *regulated community* associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

The regulated community owns 2,596 CWSs and NTNCWSs that will be affected by this proposed rulemaking. As detailed in the response to question #17, the cost of complying with this proposed rulemaking is estimated to range from \$21,656 to \$29,201 annually per water system, resulting in a total estimated annual statewide cost for these 2,596 CWSs and NTNCWSs of \$56.22 million to \$75.81 million. Costs for water systems that do not have any lead or GRR service lines and that do not exceed an action level (and are therefore not required to install or reoptimize optimal CCT) should be lower, as detailed in the response to question #17.

(20) Provide a specific estimate of the costs and/or savings to the *local governments* associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

There are 285 CWSs and NTNCWSs owned by municipalities that will be affected by this proposed rulemaking. As detailed in the response to question #17, the cost of complying with this proposed rulemaking is estimated to range from \$21,656 to \$29,201 annually per water system, resulting in a total estimated annual statewide cost for all 285 municipally-owned CWSs and NTNCWSs of \$6.17 million to \$8.32 million. Costs for water systems that do not have any lead or GRR service lines and that do not exceed an action level (and are therefore not required to install or reoptimize optimal CCT) should be lower, as detailed in the response to question #17.

(21) Provide a specific estimate of the costs and/or savings to the *state government* associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.

Of the 2,911 CWSs and NTNCWSs, 30 systems are owned and/or operated by the state government. As detailed in the response to question #17, the cost per water system is estimated to range from \$21,656 to \$29,201 annually, resulting in a statewide total estimated annual cost to all 30 state-owned of \$649,680 to \$876,030. Costs for water systems in Pennsylvania that do not have any lead or GRR service lines and that do not exceed an action level (and are therefore not required to install or reoptimize optimal CCT) are estimated to range from \$3,482 to \$3,973 annually. These 30 water systems are owned by the Department of Conservation and Natural Resources, the Department of Corrections, the Department of Human Services, the Department of Labor and Industry and the Department of Military and Veterans Affairs. It is anticipated that the specific funding amount needed by each of these agencies to implement the provisions of the LCRI will be evaluated by that agency and incorporated into their budgets.

As detailed in the response to question #17, the state government will also incur costs associated with the Department's implementation and administration of the 2024 federal LCRI, estimated to be between \$460,714 and \$494,643 per year. The Department's implementation and administration of the LCRI will be done by existing Bureau of Safe Drinking Water program staff that charge time to different funding sources, which are the federal Drinking Water State Revolving Fund (DWSRF) Set-Aside grant, the federal Public Water System Supervision (PWSS) grant, the State Safe Drinking Water Account and the State General Fund, noted as Environmental Program Management in question #23a.

(22) For each of the groups and entities identified in items (19)-(21) above, submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.

The reporting requirements are specified in the 2024 federal LCRI. All CWSs and NTNCWSs are required to report the same information to the Department, unless a specific provision does not apply. For example, if the water system does not have any lead service lines, the provisions and reporting requirements relating to lead service lines would not apply.

The Department also creates and maintains templates and instructions as compliance assistance tools that water systems may use to fulfill many of the reporting requirements of the 2024 federal LCRI. These templates are intended to assist water systems with public notifications, consumer tap notices, lead public education, service line consumer notices, risk mitigation measures and sample site locations. These templates are not mandatory and are provided as a service to water systems on the Department's eLibrary

at <https://greenport.pa.gov/eLibrary>. Water systems that opt to use the Department templates are assured that all required content elements for the reporting element are included.

(22a) Are forms required for implementation of the regulation?

Yes. There are paperwork requirements for which water systems must report information on forms provided by, or acceptable to, the Department. Water systems must utilize the following forms:

- Service Line Inventory Form and Instructions (Document ID 3930-FM-BSDW0119)
<https://greenport.pa.gov/elibrary/GetFolder?FolderID=1663827>
This is an existing form; revisions are not needed.
- Service Line Inventory Forms and Instructions for Water Systems with No More Than Five (5) Service Connections (Document ID 3930-FM-BSDW0042)
<https://greenport.pa.gov/elibrary/GetFolder?FolderID=1663640>
This is an existing form; revisions are not needed.
- Public Water Supply Permit Application (Document ID 3900-PM-BSDW0002)
<https://greenport.pa.gov/elibrary/GetFolder?FolderID=3935>
This is an existing form; revisions are not needed.
- Public Water Supply Application – Modules 1—15 (Document ID 3900-PM-BSDW0254)
<https://greenport.pa.gov/elibrary/GetFolder?FolderID=3929>
These are existing forms; revisions are not needed.
- Designation of Optimal Water Quality Parameters (WQPs) Request Form (Document ID 3940-FM-BSDW0003)
<https://greenport.pa.gov/elibrary/GetFolder?FolderID=1133937>
This is an existing form; revisions are not needed.
- Corrosion Control Treatment – Basic Feasibility Study (Document ID 394-3000-005)
<https://greenport.pa.gov/elibrary/GetDocument?docId=9133089&DocName=ION%20CONTROL%20TREATMENT%20-%20BASIC%20FEASIBILITY%20STUDY.PDF%20394-3000-005%20%20>
This is an existing form that will be revised for implementation of this proposed rulemaking.
- The LCRI Alternative Compliance Option Request Form for eligible water systems (CWSs serving less than 3,300 persons and NTNCWSs) that exceed the lead action level only that elect to request an alternative compliance option. This is a new form that will be available for rule implementation.

(22b) If forms are required for implementation of the regulation, attach copies of the forms here. If your agency uses electronic forms, provide links to each form or a detailed description of the information required to be reported. Failure to attach forms, provide links, or provide a detailed description of the information to be reported will constitute a faulty delivery of the regulation.

Links are provided in the response to #22a. The new LCRI Alternative Compliance Option Request Form and the revised Corrosion Control Treatment – Basic Feasibility Study form are attached.

(23) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

Where cost estimates included a range, the higher estimate was used in the table below. The costs to state government include the costs to both the public water systems that are owned and/or operated by the state government and the costs to administer and implement the 2024 federal LCRI.

	Current FY 2025-26	FY +1 2026-27	FY +2 2027-28	FY +3 2028-29	FY +4 2029-30	FY +5 2030-31
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community	0	0	0	0	0	0
Local Government	0	0	0	0	0	0
State Government	0	0	0	0	0	0
Total Savings	0	0	0	0	0	0
COSTS:						
Regulated Community	\$75,810,000	\$75,810,000	\$75,810,000	\$75,810,000	\$75,810,000	\$75,810,000
Local Government	\$8,320,000	\$8,320,000	\$8,320,000	\$8,320,000	\$8,320,000	\$8,320,000
State Government	\$1,370,673	\$1,370,673	\$1,370,673	\$1,370,673	\$1,370,673	\$1,370,673
Total Costs	\$85,500,673	\$85,500,673	\$85,500,673	\$85,500,673	\$85,500,673	\$85,500,673
REVENUE LOSSES:	0	0	0	0	0	0
Regulated Community	0	0	0	0	0	0
Local Government	0	0	0	0	0	0
State Government	0	0	0	0	0	0
Total Revenue Losses	0	0	0	0	0	0

(23a) Provide the past three-year expenditure history for programs affected by the regulation.

Program	FY - 3 (2022-23)	FY - 2 (2023-24)	FY - 1 (2024-25)	Current FY (2025-26)
Environmental Program Management (161-10382)	\$35,739,000	\$39,714,000	\$42,510,000	\$45,486,000
Safe Drinking Water Account (092-60065)	\$11,058,000	\$12,339,000	\$11,012,000	\$11,778,000

(24) For any regulation that may have an adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), provide an economic impact statement that includes the following:

(a) An identification and estimate of the number of small businesses subject to the regulation.

Small business impacts are detailed in the response to question #15.

(b) The projected reporting, recordkeeping and other administrative costs required for compliance with the proposed regulation, including the type of professional skills necessary for preparation of the report or record.

There are no new administrative requirements. Administrative costs for public water systems associated with this proposed rulemaking may increase minimally, if at all.

(c) A statement of probable effect on impacted small businesses.

Small business impacts are detailed in the response to question #15. The response to question #25 details steps taken by the EPA and the Department, and financial resources available, to minimize the compliance burden for the regulated community, including small businesses.

(d) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.

No alternative regulatory schemes were considered because all customers of public water systems deserve equitable water quality and public health protection and access to information about drinking water provided by public water systems.

Under the 2024 federal LCRI, small water systems serving less than 3,300 persons are given the flexibility to select the least costly compliance option. If the lead compliance value exceeds the action level, these public water systems could choose to: install, maintain, and monitor point-of-use devices in each household and each building it serves; replace all lead-bearing plumbing; or install and maintain optimized CCT. Small water systems that qualify for this alternative compliance option will need to decide the most feasible option for addressing the lead exceedance. Public water systems that do not detect lead or copper above the relevant action level can request a reduced monitoring frequency to save costs.

(25) List any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.

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. However, many schools and child care facilities may not have tested their water for lead. Under the 2024 federal LCRI, CWSs will be required to provide schools and child care facilities with education on the risks of lead in their buildings so those facilities can consider taking voluntary actions in response. CWSs will also be required to conduct lead monitoring at schools and child care facilities they serve. The proposed rulemaking also includes clearer and more complete messaging about lead in drinking water, including updated lead health effects language, steps consumers can take to reduce exposure, and updated translation requirements for public education. These provisions strengthen the protection to reduce lead exposure for affected sensitive populations such as pregnant women and young children.

The Department's Safe Drinking Water Program has established a network of regional and Central Office training staff that are responsible for identifying training needs. The target audiences for training included regulated public water systems and the Department's Safe Drinking Water Program staff.

In addition to this network of training staff, the Department's Bureau of Safe Drinking Water has staff dedicated to providing training and technical outreach support services to public water system owners and operators. The Department's website also provides timely and useful information for drinking water and wastewater treatment system operators. Furthermore, the Department's Bureau of Safe Drinking Water Program has been partnering with industry organizations by referring public water systems for service line inventory technical assistance.

(26) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

No alternative regulatory schemes were considered. These amendments reflect federal rules that must be complied with or adopted by individual states to retain primary enforcement responsibility for public water systems under the federal Safe Drinking Water Act and to provide equitable water quality and public health protections to all public water system customers.

The proposed rulemaking contains the least burdensome acceptable option because it provides small CWSs serving less than 3,300 persons and NTNCWSs the flexibility to select the most cost-effective method to comply, as noted in the response to question #24(d).

(27) In conducting a regulatory flexibility analysis, explain whether regulatory methods were considered that will minimize any adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), including:

a) The establishment of less stringent compliance or reporting requirements for small businesses;

For these provisions, no less stringent compliance or reporting requirements for small businesses were considered. The proposed 2024 federal LCRI provisions allow small CWSs serving less than 3,300 persons and NTNCWSs the flexibility to select the least costly and most feasible option for compliance. This is a benefit for these small CWSs serving less than 3,300 persons that provides the same level of public health protection as customers of medium and large water systems.

b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses;

For these provisions, no less stringent schedules or deadlines for small businesses were considered. The Department cannot consider less stringent schedules or deadlines to retain primary enforcement responsibility for public water systems in Pennsylvania under the federal Safe Drinking Water Act.

c) The consolidation or simplification of compliance or reporting requirements for small businesses;

The Department considered and elected to implement the small water system compliance flexibility option for small systems that exceed the lead action level. Small CWSs serving less than 3,300 persons and NTNCWSs are given the flexibility to select the least costly and most feasible treatment option to comply. These public water systems could elect to install, maintain,

and monitor point-of-use devices in each household and each building it serves, or those public water systems could elect to replace all lead-bearing plumbing instead of installing and maintaining optimized CCT. The Department developed the LCRI Alternative Compliance Option Request Form for small public systems to request, and certify compliance with, the chosen flexibility option to assist these water systems in fulfilling this requirement.

d) The establishment of performance standards for small businesses to replace design or operational standards required in the regulation; and

There are no design or operational standards required by the proposed regulation.

e) The exemption of small businesses from all or any part of the requirements contained in the regulation.

No exemptions for small businesses from all or any part of the requirements in the proposed rulemaking were considered.

(28) If data is the basis for this regulation, please provide a description of the data, explain in detail how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.

Data was not used as the basis for this proposed rulemaking.

(29) Include a schedule for review of the regulation including:

- | | |
|---|---|
| A. The length of the public comment period: | <u>60 days</u> |
| B. The date or dates on which any public meetings or hearings will be held: | <u>None scheduled</u> |
| C. The expected date of delivery of the final-form regulation: | <u>July 2027</u> |
| D. The expected effective date of the final-form regulation: | <u>Upon publication in the Pennsylvania Bulletin</u> |
| E. The expected date by which compliance with the final-form regulation will be required: | <u>Upon publication in the Pennsylvania Bulletin.</u> |
| F. The expected date by which required permits, licenses or other approvals must be obtained: | <u>Not applicable</u> |

(30) Describe the plan developed for evaluating the continuing effectiveness of the regulations after its implementation.

The Department will closely monitor these regulations for their effectiveness and recommend updates to the Board as necessary.



Optimal Corrosion Control Treatment Feasibility Study Form and Instructions

INSTRUCTIONS

To comply with the LCRI requirements for optimal corrosion control treatment (OCCT) feasibility studies, the Form 3900-FM-BSDW#### shall be completed and returned to DEP along with the other items listed in the OCCT Feasibility Study Section 11, Additional Content. OCCT is defined as corrosion control treatment that minimizes lead and copper concentrations at users' taps while ensuring that the treatment does not cause the water system to violate any national primary drinking water regulations.

Corrosion Control Feasibility Study refers to a technical and systematic evaluation of a water system's source water(s), treatment, and distribution system water quality to determine the most effective corrosion control treatment for materials present in the system. Types of CCS include but are not limited to a desktop study, static test, coupon test, and flow-through pipe rig test. A CCS almost always consists of a desktop study regardless of the complexity of the study and may or may not include one or more types of other tests.

Please ensure that the form is completed in its entirety and the fields are filled in correctly. Note the superscript numbers next to some of the fields and reference the appropriate footnote to ensure proper completion. More specific information to assist in the completion of this form can be found in the sections below. Each numbered section (e.g. Section 1) corresponds with the same titled numbered section on the evaluation form.

Prior to beginning the corrosion control feasibility study, the water supplier should consider the following:

1. Form 3940-FM-BSDW####, the corrosion control feasibility study form, is intended to allow the user to review alternative treatments to achieve optimal corrosion control. In a step-by-step fashion, the form is designed to guide the user in compiling all the necessary information needed for this evaluation. The evaluation is intended to be a selective process whereby options are narrowed down based on theory, actual system operation, and constraints.
2. The information requested, unless stated otherwise, must be completed to fully evaluate each treatment alternative. A combination of treatment methods may be necessary to achieve optimal corrosion control.
3. Conduct a desktop evaluation of water quality and corrosivity and identify if and what type of corrosion control study(s) is required.
4. At least two of the following corrosion control studies shall be utilized to support recommendations:
 - Desk Top Study
 - Computer Model(s)
 - EPA Corrosion Control Treatment Theory
 - Coupon Studies
 - Flow-Through Pipe Rig Test (Pipe Loop)*



- Scale and Solids Analysis

* Required for systems serving more than 50,000 people with a lead action level exceedance (ALE) and that have lead service lines

Reports or summaries shall be attached to the form where applicable.

5. All WQP samples must be analyzed using EPA-approved/accepted methods. Laboratories are not required to be certified to test for chlorine, pH, temperature, calcium, orthophosphate, silica, alkalinity, or conductivity.
6. The pH shall be analyzed in the field or within 15 minutes from the time when the sample was collected using a pH probe that utilizes an EPA approved method (three standards for calibration).

Section 1: PWS General Information

Public Water System (PWS) Name: Enter the organization name of the facility that will be used on official documents by the water PWS.

Public Water System Identification Number (PWSID No.): Enter the 7-digit PWSID Number.

Contact Person Information: Enter the name, title, address, telephone number, and email address for the contact person of the system.

When completing the "Type of System" field, please select "Surface Water" if the PWS utilizes a combination of surface water and groundwater sources. If the PWS is a consecutive system (receives finished water from another PWS), please select "Consecutive" regardless of whether the delivering system utilizes groundwater or surface water as its source.

Please supply the best point of contact (POC) for the PWS in the "PWS Contact Information" subsection. The contact phone, fax, and email should be connected to this POC (as opposed to the general contact information to the PWS).

The "Design Engineer" subsection should be filled out, signed, and sealed by Professional Engineer.

Section 2: Water Quality Information

Section 2.1: Two Most Recent Tap Monitoring Results

Please note the beginning and ending dates of the two most recent tap monitoring results. Include the number of samples of lead and copper taken as well as the minimum, maximum, and 90th percentile concentrations of these samples.

Section 2.2: Source Water Quality Data

Please enter the most recent sample results for lead and copper (in mg/L) from each of the PWS's sources and the date the tested samples were collected.

Section 2.3: Entry Point Water Quality Data



Please enter data for each entry point. If the PWS has more than one entry point, make a copy of the form and complete Section 2.3 for each entry point.

When completing the form, the PWS shall submit results of Total Dissolved Solids (mg/L)² or Conductivity (µmhos/cm @ 25 C or µS/cm)². The PWS may also choose to submit both. This is the only optional field for this form.

Free Chlorine (mg/L as Cl²) measurements shall be submitted for systems that utilize free chlorine as the disinfectant in the distribution system. Total chlorine (mg/L as Cl²) measurements shall be submitted for systems that utilize chloramines as the disinfectant in the distribution system.

Recommended monitoring parameters for the number of samples, frequency of sampling, and duration of sampling are given in the columns following those requesting PWS input. The PWS should follow these parameters or submit in writing any reasons why these recommended parameters were not met.

Section 2.4: Water Quality Data – Distribution System

Please enter the water quality data for the distribution system. When completing the form, the PWS shall submit results of Total Dissolved Solids (mg/L)² or Conductivity (µmhos/cm @ 25 C or µS/cm)². The PWS may also choose to submit both. This is the only optional field for this form. Free Chlorine (mg/L as Cl²) measurements shall be submitted for systems that utilize free chlorine as the disinfectant in the distribution system. Total chlorine (mg/L as Cl²) measurements shall be submitted for systems that utilize chloramines as the disinfectant in the distribution system.

Recommended monitoring parameters for the number of samples, frequency of sampling, and duration of sampling are given in the columns following those requesting PWS input. The PWS should follow these parameters or submit in writing any reasons why these recommended parameters were not met.

Section 3: Treatment Information

Section 3.1: Enter Point Treatment Information

Please enter the existing treatment systems for each entry point. If there is more than one entry point, copy this section and complete for each entry point.

Primary disinfection: Disinfectant used to kill or inactivate bacteria, viruses, and other potentially harmful organisms in drinking water.

Secondary disinfection: Disinfectant used to provide additional disinfectant to water that has already been treated to meet all Safe Drinking Water Act requirements.

Section 3.2: Existing Corrosion Control Treatment

Please enter any existing corrosion control treatment systems. If different entry points have different corrosion control treatment, copy this section and complete for each entry point.



Section 4: Distribution System Information

For systems that exceed lead results, the target pH should be between 8.8 to 10. Systems with lead service lines that are not using a corrosion inhibitor should consider increasing the pH to 9.0 or greater.

Section 5: Historical Information

Section 6: Potential Constraints or Causes of Elevated Lead and/or Copper Levels in the System

Section 6.1: Dissolved Inorganic Carbon (DIC)

Use the average alkalinity and pH from each entry point and the minimum, maximum, and average alkalinity, and pH from the distribution system to estimate the DIC from the charts in Appendix B (From USEPA's 2016, *Optimal Corrosion Control Treatment Evaluation Technical Recommendation for Primacy Agencies and Public Water Systems*).

Increasing pH, alkalinity, and DIC causes formation of insoluble compounds on metal surfaces, reducing lead and copper release. Too much alkalinity/DIC can interfere with copper control and re-solubilize lead.

Section 6.2: Theoretical Saturation pH for Calcium Carbonate Precipitation

Refer to Exhibit 3.2 from USEPA's 2016, *Optimal Corrosion Control Treatment Evaluation Technical Recommendation for Primacy Agencies and Public Water Systems* (pages 29 and 30) to determine the theoretical saturation pH for calcium carbonate precipitation.

Identifying the Appropriate Flowchart for Preliminary CCT Selection

Is iron or manganese present in finished water?	What is the contaminant to be addressed?	What is the finished water pH?	Use This Flowchart
---	--	--------------------------------	--------------------


 COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF SAFE DRINKING WATER

No	Lead only, or Both Lead and Copper	< 7.2	1a
		7.2 - 7.8	1b
		>7.8 - 9.5	1c
		>9.5	1d
Yes ¹	Copper only	< 7.2	2a
		7.2 - 7.8	2b
		>7.8	2c
		< 7.2	3a
		≥ 7.2	3b

1. Flowcharts 3a and 3b present several treatment options for lead and copper that also reduce iron and manganese. Systems can also consider removing iron and manganese first, then using flowcharts 1a through 2c to control for lead and/or copper.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER**

**Appendix B****pH**

Total Alkalinity	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4
0	0																				
2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0					
4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0			
6	3	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0		
8	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	0		
10	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	1	1	0	
12	5	4	4	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	1	1	
14	6	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	2	2	1	1	0
16	7	6	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	2	2	1	0
18	8	7	6	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	2	2	1
20	9	7	6	6	5	5	5	5	5	5	5	5	5	4	4	4	4	3	3	2	1
22	10	8	7	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	3	2	1
24	11	9	8	7	7	6	6	6	6	6	6	6	5	5	5	5	4	4	3	2	2
26	11	10	8	8	7	7	7	6	6	6	6	6	6	6	6	5	5	4	4	3	2
28	12	10	9	8	8	7	7	7	7	7	7	7	6	6	6	6	5	5	4	3	2
30	13	11	10	9	8	8	8	7	7	7	7	7	7	7	6	6	6	5	4	3	2
35	15	13	11	10	9	9	9	9	9	8	8	8	8	8	8	7	7	6	5	4	3
40	18	15	13	12	11	10	10	10	10	10	10	9	9	9	9	8	8	7	6	5	4
45	20	16	14	13	12	12	11	11	11	11	11	11	10	10	10	9	9	8	7	6	5
50	22	18	16	14	14	13	13	12	12	12	12	12	12	11	11	10	10	9	8	7	5
55	24	20	18	16	15	14	14	14	13	13	13	13	13	12	12	11	11	10	9	8	6
60	26	22	19	17	16	16	15	15	15	14	14	14	14	14	13	12	12	11	10	8	7
65	29	24	21	19	18	17	16	16	16	16	15	15	15	15	14	14	13	12	10	9	8


 COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF SAFE DRINKING WATER

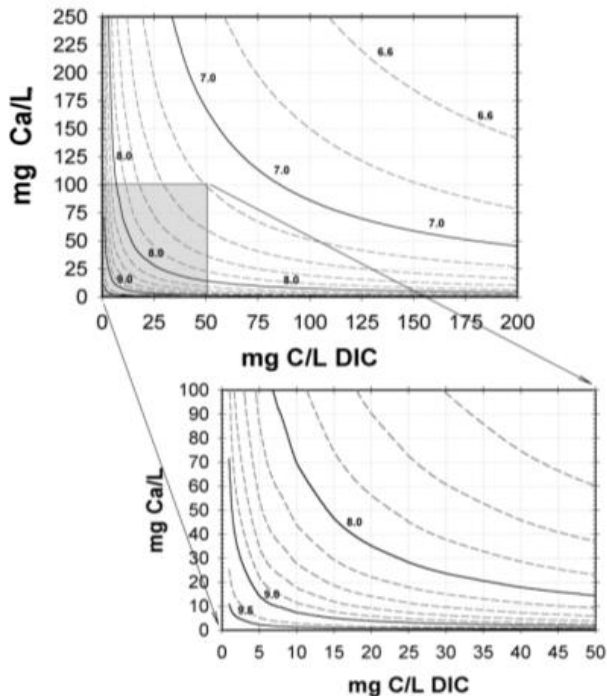
pH

Total Alkalinity	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4
70	31	26	22	20	19	18	18	17	17	17	17	16	16	16	15	15	14	13	11	10	8
75	33	27	24	22	20	19	19	19	18	18	18	18	17	17	16	16	15	14	12	11	9
80	35	29	26	23	22	21	20	20	19	19	19	19	19	18	18	17	16	14	13	12	10
85	37	31	27	25	23	22	21	21	21	20	20	20	20	19	19	18	17	15	14	12	11
90	40	33	29	26	24	23	23	22	22	22	21	21	21	20	20	19	18	16	15	13	11
95	42	35	30	28	26	25	24	23	23	23	23	22	22	22	21	20	19	17	16	14	12
100	44	37	32	29	27	26	25	25	24	24	24	24	23	23	22	21	20	18	17	15	13
125	55	46	40	36	34	32	31	31	30	30	30	29	29	28	27	26	25	23	21	19	17
150	66	55	48	43	41	39	38	37	37	36	36	35	35	34	33	32	30	28	25	23	20
175	77	64	56	51	47	45	44	43	43	42	42	41	41	40	39	37	35	32	30	27	24
200	88	73	64	58	54	52	50	49	49	48	48	47	46	45	44	42	40	37	34	31	28
225	99	82	72	65	61	58	57	56	55	54	54	53	52	51	50	48	45	42	38	35	32
250	110	91	80	72	68	65	63	62	61	60	60	59	58	57	55	53	50	47	43	39	36
275	121	100	88	80	75	71	69	68	67	66	66	65	64	63	61	58	55	51	47	43	39
300	132	110	96	87	81	78	76	74	73	72	72	71	70	68	66	64	60	56	52	47	43
325	143	119	104	94	88	84	82	80	79	78	77	77	75	74	72	69	65	61	56	51	47
350	154	128	112	101	95	91	88	86	85	84	83	82	81	80	77	74	70	65	60	55	51
375	165	137	120	109	102	97	94	93	91	90	89	88	87	85	83	79	75	70	65	59	54
400	176	146	128	116	108	104	101	99	97	96	95	94	93	91	88	85	80	75	69	63	58

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER



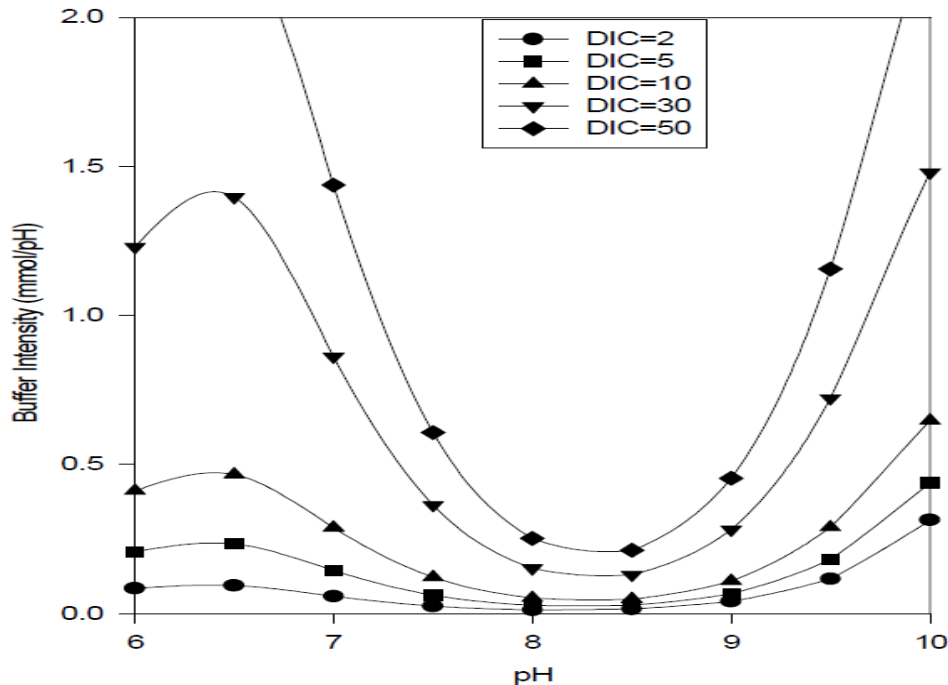
Pennsylvania
Department of
Environmental Protection



Theoretical Saturation pH for Calcium Carbonate Precipitation (USEPA, 2003) Notes: Solid lines are pH in whole numbers. Dashed lines are pH increments of 0.2 Calcium values are in mg Ca/L. To approximate calcium concentration (in mg Ca/L) from a measured hardness (as mg/L CaCO_3), divide the hardness value by 2.5.

Section 6.3: Buffer Intensity

Buffer intensity is the concentration of base required to raise the pH one unit and has units of moles/L/unit pH. It measures the water's resistance to changes in pH. It depends on the alkalinity, DIC, and pH of the water. Low buffer intensity can mean the distribution system pH could have wide swings. Waters with pH between 8 and 8.5 and DIC less than about 10 mg/L as C have low buffer intensity which can lead to pH instability in the distribution system.



Buffer Intensity as a Function of pH at Different DIC Values (Clement and Schock, 1998b, Figure 1)

Section 6.4: Chloride-to-Sulfate Mass Ratio (CSMR)

CSMR > 0.6 may result in formation of soluble chloride complex where lead is galvanically connected to another metal. CSMR can be affected by changing from a sulfate-based to a chloride-based coagulant or the addition of an anion exchange treatment system. Systems with CSMR > 0.6 are more likely to have lead exceedances.

$$\text{CSMR} = \frac{\text{Average Chloride Level}}{\text{Average Sulfate Level}}$$

Section 6.4: Iron (Fe), Manganese (Mn) and the Aluminum (Al)

The maximum contaminant level for iron is 0.3 mg/L, for manganese is 0.3 mg/L and for Al is 0.2 mg/L. Al can cause interferences as low as 0.05 mg/L; however, this varies on the water quality and treatment.

When increasing pH, Fe and Mn oxidation can cause black or red water in the distribution system. Fe and Mn can react with dissolved lead and form deposits and later release it back into the water system. Mn can interfere with formation of passivating films.

Al interferes with orthophosphate treatment forming aluminum phosphate precipitates, leaving less orthophosphate available to control lead and copper. Additionally, Al can make the orthophosphate scales less stable.

Section 6.5: Natural Organic Matter (NOM)

NOM can react with corrosion products to form soluble or insoluble compounds



NOM can cause increased microbiological activity in the distribution system that reduce pH and cause microbial induced corrosion.

Section 7: Identification of Potential Corrosion Control Treatment Options

Raise pH:

pH adjustment includes adding a base or similar chemical to the water to increase pH to a level where the practical lead or copper solubility lowers, acids are neutralized, and less soluble metal compounds are formed on the pipes.

Raise DIC (alkalinity):

Alkalinity adjustment includes adding a base or similar chemical to the water to increase pH to a level where the practical lead or copper solubility lowers, acids are neutralized, and less soluble metal compounds are formed on the pipes.

Orthophosphate:

Orthophosphate acts as a corrosion inhibitor by forming a protective film on the interior of pipes. This film protects the pipe material from the corrosive effects of water, which reduces or eliminates the potential for lead leaching into the water. Phosphates containing zinc will help protect cement and cement mortar-lined pipes at low alkalinity/hardness/pH conditions.

Have a chemical feed system that can maintain an orthophosphate residual of at least 1.0 mg/L as P (3.0 mg/L as PO₄) throughout the distribution system.

Section 8: Corrosion Control Studies

Section 9: Recommendations

Optimal Water Quality Parameters (OWQPs): Ranges or minimums set by the primacy agency that indicate a system's CCT is operating at a level to most effectively minimize lead and copper concentrations at user's taps.

Multiple entry points will require pH/Alkalinity adjustment at each entry location. Differing water qualities from multiple sources will require adjusting chemical doses to match the source.

System's proposing orthophosphate at one entry point will need to feed orthophosphate at all the entry points within the system.

Section 10: Simultaneous Compliance (Secondary Impacts)

Optimal corrosion control treatment means the corrosion control treatment that minimizes the lead and copper concentrations at user's taps while ensuring that the treatment does not cause the water system to violate any primary maximum contaminant level (MCL) or any other drinking water regulation. Refer to Appendix A for more information on corrosion treatment constraints.

Provide an evaluation on the effect of the chemicals used for CCT on all the treatment processes that were identified in Section II.B. See Appendix B.



The LCRI requires that part of the feasibility study demonstrates all constraints limiting the availability of corrosion control treatment alternatives be considered. The study should address constraints which cause a treatment alternative to adversely impact other water treatment processes or to otherwise be ineffective for the water system.

Water suppliers should evaluate the impact of alternative corrosion control treatment options in compliance with existing and reasonably foreseeable future regulations. Part A of each worksheet lists the regulatory constraints. In addition, water suppliers should evaluate the functional constraints of each alternative. Part B of the worksheet includes the functional constraints which may render a corrosion control treatment alternative undesirable or unfeasible.

The information in the worksheets should be used to determine the severity of a particular constraint for completion of Part G “Corrosion Treatment Constraints” of the Desktop Evaluation Form.

The use of zinc orthophosphate may present problems for wastewater facilities with zinc or phosphorus limits in their NPDES permits.

Section 11: Additional Content

The following additional information must be provided as part of the corrosion control feasibility study:

1. A distribution system map that includes a sample site location map for lead and copper tap monitoring and water quality parameter monitoring.
2. An existing system schematic indicating all sources of supply, entry points, and treatment processes.
3. A proposed schedule for the completion of remaining corrosion control treatment compliance steps, including, but not limited to, treatment design and permit application submittal, financing, construction, and initiation of operation.
4. Attach a schematic of the proposed system indicating all sources of supply, entry points, and treatment processes. Include feed pump information (make, model number, HP, etc.), sampling locations for process control, contact times, and mixing conditions required to achieve stable finished water.



FEASIBILITY STUDY EVALUATION FORM

1. PWS General Information					
a. PWS Name					
b. PWS Identification No.					
c. Population Served					
PWS Contact Information					
d. Name					
e. Mailing Address					
f. Telephone					
g. Email Address					
System Information					
h. Type of System	Groundwater ☐	Surface Water ☐	Consecutive ☐		
i. Average Daily Usage	(GPD)				
Design Engineer					
j. Design Engineer Name:					
k. Firm Name:					
l. Address:					
City:		State:		Zip Code:	
m. Phone No.:		n. Email Address:			
Signature of Design Engineer			Design Engineer's Seal		
Date:					



2. Water Quality Information for Two Most Recent Monitoring Periods

Attach all DEP certified laboratory results.

2.1. Lead and Copper at Tap

Lead and Copper Most Recent Monitoring Period				
Sampling Dates	Beginning		Ending	
Parameter	No. of Samples	Minimum	Maximum	90th percentile
Lead (mg/L)				
Copper (mg/L)				
Lead and Copper 2 nd Most Recent Monitoring Period				
Sampling Dates	Beginning		Ending	
Parameter	No. of Samples	Minimum	Maximum	90th percentile
Lead (mg/L)				
Copper (mg/L)				

2.2. Source Water Quality Data

System shall collect raw water lead and copper samples for each source.

Source No.	Value	Date Collected
Lead	mg/L	
Copper	mg/L	
Source No.	Value	Date Collected
Lead	mg/L	
Copper	mg/L	
Source No.	Value	Date Collected
Lead	mg/L	
Copper	mg/L	
Source No.	Value	Date Collected
Lead	mg/L	
Copper	mg/L	

Chapter 109.1102, of the Safe Drinking Water Regulations, requires systems that must reduce the concentration of lead or copper in its source water to achieve optimal corrosion control to provide source water treatment. These systems shall evaluate treatments including ion exchange, reverse osmosis, lime softening and coagulation/filtration.


 COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF SAFE DRINKING WATER

2.3. Entry Point Water Quality Data

Entry Point No.	Source Names that supply Entry Point		Required Monitoring under LCRI											
Parameters	No. of Samples			Recommended Monitoring			System Data							
	No. of Samples	Frequency	Duration of Sampling	No. of Samples	Frequency	Duration of Sampling	No. of Sites	No. of Samples	Date Range When Samples Were Collected		Minimum Value	Maximum Value	Average Value	
									Start (dd/mm/yyyy)	End (dd/mm/yyyy)				
Lead (mg/L) ¹				1	1x/year	1 year								
Copper (mg/L) ¹				1	1x/year	1 year								
pH ⁵				12 ⁽⁵⁾	monthly	1 year								
Alkalinity (mg/L as CaCO ₃)				12 ⁽⁵⁾	monthly	1 year								
Orthophosphate (mg/L as P)				12	monthly	1 year								
Hardness (mg/L as CaCO ₃)				12	monthly	1 year								
Temperature (°C) ⁵				12	monthly	1 year								
Calcium (mg/L as Ca)				12	monthly	1 year								
Total Dissolved Solids (mg/L) ²				6	every other month	1 year								
Conductivity (as µmho/cm @ 25 °C) ²				12	monthly	1 year								
Total Chlorine (mg/L as Cl ₂)				12 ⁽⁵⁾	monthly	2 years								
Free Chlorine (mg/L as Cl ₂)				12 ⁽⁵⁾	monthly	3 years								
Chloride (mg/L)				6	every other month	1 year								
Sulfate (mg/L)				6	every other month	1 year								
Iron (mg/L)				4	quarterly	1 year								
Manganese (mg/L)				4	quarterly	1 year								
Silica (mg/L as SiO ₂)				4	quarterly	1 year								

¹ Enter data for each entry point. Copy sheet for multiple entry points.
² Either total dissolved solids or conductivity can be measured.
³ Both total and free chlorine should be measured.
⁴ Additional data may be available from the system depending on process control data collection schedules.
⁵ Analysis must be performed in the field or within 15 minutes from the time when the sample was collected.


 COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF SAFE DRINKING WATER

2.4. Distribution Point Water Quality Data

Source Name (if more than one source, copy this section and complete for each source)													
Source ID													
Source Type													
Parameter	Required Monitoring under LCR			Recommended Data Collection			System Data						
	No. of Samples	Frequency	Duration of Sampling	No. of Sites	Frequency	Duration of Sampling	No. of Sites	No. of Samples	Date Range When Samples Were Collected		Minimum Value	Maximum Value	Average Value
									Start (dd/mm/yyyy)	End (dd/mm/yyyy)			
pH ⁴				12 ⁽³⁾	monthly	1 year							
Alkalinity (mg/L as CaCO ₃)				6	monthly	1 year							
Orthophosphate (mg/L as P)				12 ⁽³⁾	monthly	1 year							
Hardness (mg/L as CaCO ₃)				6	monthly	1 year							
Temperature (°C) ⁴				12 ⁽³⁾	monthly	1 year							
Calcium (mg/L as Ca)				6	monthly	1 year							
Total Dissolved Solids (mg/L) ¹				6	monthly	1 year							
Conductivity (as µmho/cm @ 25 °C) ¹				12	monthly	1 year							
Disinfectant Residual ²													
Total Chlorine (mg/L as Cl ₂)				12 ⁽³⁾	monthly	1 year							
Free Chlorine (mg/L as Cl ₂)				12 ⁽³⁾	monthly	1 year							
Chloride (mg/L)				4	quarterly	1 year							
Sulfate (mg/L)				4	quarterly	1 year							
Iron (mg/L)				4	quarterly	1 year							
Manganese (mg/L)				4	quarterly	1 year							
Silica (mg/L as SiO ₂)				4	quarterly	1 year							

¹ Either total dissolved solids or conductivity can be measured.

² Both total and free chlorine should be measured.

³ Select a combination of sites at various distances from the entry point.

⁴ Analysis must be performed in the field within 15 minutes from the time when the sample was collected.



3. Treatment Information

3.1. Enter Point Treatment Information

Treatment Process Information- Entry Point No.:						
(if more than one entry point, copy this section and complete for each entry point)						
Source Names that supply Entry Point:						
Source Nos.:						
Source Type(s):						
Treatment Process	Current Treatment			Planned Future Treatment		
	"x" if applicable	Chemical used and dosage	Note/Comments	"x" if applicable	Estimated implementation Date (MM/YYYY)	Note/Comments
Primary Disinfection	☐			☐		
Secondary Disinfection	☐			☐		
Surface Water Filtration	☐			☐		
Membrane Filtration (MF or UF)	☐			☐		
Membrane Filtration (RO or NF)	☐			☐		
Cation Exchange (softening)	☐			☐		
PFAS Treatment (AIX)	☐			☐		
PFAS Treatment (GAC)	☐			☐		
Anion Exchange	☐			☐		
Aeration	☐			☐		
Lime Softening	☐			☐		
Fluoride Addition	☐			☐		
Polyphosphate (mg/L as P)	☐			☐		
Blended phosphate	☐			☐		
other Process	☐			☐		
other Process	☐			☐		
Other Chemical Addition:	☐			☐		
Chemical Name	☐			☐		
Chemical Name	☐			☐		
Chemical Name	☐			☐		
Chemical Name	☐			☐		

[illegible]



4. Distribution System Information

4.1.	Does the distribution system contain lead services lines?	Yes ☐	No ☐
4.2.	Approximate number of full lead service lines:		
4.3.	Approximate number of partial lead service lines:		
4.4.	Approximate range of years the lead service lines were installed	(YYYY)	to (YYYY)
4.5.	When was the last material survey completed?		
4.6.	What is the approximate percentage of unlined cast iron water mains?	%	
4.7.	What is the approximate total length of unlined cast iron mains?	(feet)	
4.8.	List all types of piping materials in the distribution system:		
4.9.	Is the system flushed?	Yes ☐	No ☐
	a. If yes, how often?		
4.10.	Do dead-ends experience water quality problems?	Yes ☐	No ☐
4.11.	Does the system purchase water from any other PWS?	Yes ☐	No ☐
	a. If yes, what is the approximate percentage of average daily use?		
	b. What is the source of the purchased water?		
4.12.	For systems that exceed lead results, the target pH should be between 8.8 to 10. Systems with lead service lines that are not using a corrosion inhibitor is the pH increased to 9.0 or greater	Yes ☐	No ☐

5. Historical Information

5.1.	Have there been any corrosion control studies done in the past?	Yes ☐	No ☐
5.2.	Is a copy of any previous corrosion control studies attached?	Yes ☐	No ☐
5.3.	What treatment changes were recommended?		
5.4.	Were treatment changes implemented?	Yes ☐	No ☐
5.5.	Is treatment still in use?	Yes ☐	No ☐
	If not, why?		



6. Potential Constraints or Causes of Elevated Lead and/or Copper Levels in the System

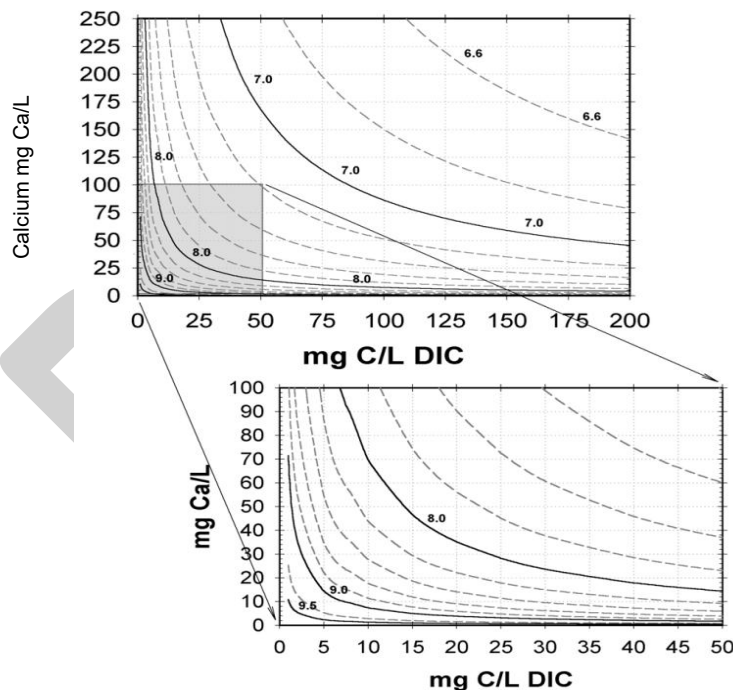
6.1. Dissolved Inorganic Carbon (DIC)

Use the average alkalinity and pH from each entry point and the minimum, maximum and average alkalinity and pH from the distribution system to estimate the DIC from the charts in Appendix B (From USEPA's 2016, *Optimal Corrosion Control Treatment Evaluation Technical Recommendation for Primacy Agencies and Public Water Systems*).

Entry Point	EP No.	EP No.	EP No.	EP No.	EP No.
DIC					
Distribution System					
	Minimum	Maximum	Average		
DIC					

6.2. Theoretical Saturation pH for Calcium Carbonate Precipitation

Refer to Exhibit 3.2 from USEPA's 2016, *Optimal Corrosion Control Treatment Evaluation Technical Recommendation for Primacy Agencies and Public Water Systems* (pages 29 and 30) to determine the theoretical saturation pH for calcium carbonate precipitation.



Maximum DIC	Calcium as mg/L as Ca	Saturation pH
(from 6.1)	(from 2.4)	

Theoretical Saturation pH for Calcium Carbonate Precipitation (USEPA, 2003) Notes: Solid lines are pH in whole numbers. Dashed lines are pH increments of 0.2 Calcium values are in mg Ca/L.



To approximate calcium concentration (in mg Ca/L) from a measured hardness (as mg/L CaCO₃), divide the hardness value by 2.5.

6.3. Buffer Intensity

Buffer intensity depends on the alkalinity, DIC, and pH of the water. Exhibit 6.3 shows the relationship of pH and buffer intensity at different DIC values, with the highest buffer intensity at a pH of approximately 6.3 and minimum intensity at pH values between 8.0 and 8.5. Waters with pH between 8 and 8.5 and low DIC (less than about 10 mg/L as C) have low buffer intensity and may have more variable pH within the distribution system.

6.4. Chloride-to-Sulfate Mass Ratio (CSMR)

CSMR > 0.6 may result in formation of soluble chloride complex where lead is galvanically connected to another metal. CSMR can be affected by changing from a sulfate-based to a chloride-based coagulant or the addition of an anion exchange treatment system.

$$\text{CSMR} = \frac{\text{Average Chloride Level}}{\text{Average Sulfate Level}}$$

	Distribution System	EP No.	EP No.	EP No.	EP No.	EP No.
CSMR Value						

7. Identification of Potential Corrosion Control Treatment Options

Indicate the preliminary CCT recommendation from Appendix C of ? (Exhibit 3.3 from USEPA's 2016, Optimal Corrosion Control Treatment Evaluation Technical Recommendation for Primacy Agencies and Public Water Systems, pages 30 - 40)

Potential Corrosion Control Treatments Options

CCT Options	Mark "x" to all that apply	Identify possible treatment chemicals or processes for the options identified (chemical name)
Raise pH	☐	
Raise DIC (alkalinity)	☐	
Add Orthophosphate	☐	



8. Corrosion Control Studies

Indicate (check) sources used in determining optimal corrosion control treatment recommendations:

Desktop Study	
☐	Analogous Treatment
☐	EPA Corrosion Control Treatment Theory
☐	Computer Model(s): Specify
Demonstration Study	
☐	Pipe Loop Testing
☐	Coupon Study
☐	Scale and Solids Analysis

Briefly summarize the review of the corrosion control literature, reports, studies, or computer models utilized for your evaluation. Attach the report or summary.



9. RECOMMENDATIONS

Include the optimal corrosion control treatment method or combination of methods and corresponding water quality parameters being proposed. The target entry point and distribution values should be specified as minimums or ranges.

☐	Raise pH	
Chemical(s) Proposed:		
Concentration:	%	
Target Dose:	mg/L	
Target entry point pH: ²		
Target distribution pH: ²		
Target alkalinity at entry point: ¹	mg/L as CaCO ₃	
Target alkalinity in distribution system: ¹	mg/L as CaCO ₃	
☐	Raise DIC (Alkalinity)	
Chemical(s) Proposed:		
Concentration:	%	
Target Dose:	mg/L	
Target entry point pH: ²		
Target distribution pH: ²		
Target alkalinity at entry point: ¹	mg/L as CaCO ₃	
Target alkalinity in distribution system: ¹	mg/L as CaCO ₃	
☐	Orthophosphate Inhibitor ³	
Brand Name:		
% Orthophosphate:	%	
Target Dose:	mg/L	
Target entry point residual:	mg/L as PO ₄	
Target distribution residual:	mg/L as PO ₄	
¹ Minimum required finished water alkalinity 20 mg/L as CaCO ₃ . ² Systems that exceed for lead and have lead service lines should raise the pH to between 8.8 and 10. System not using corrosion inhibitor(s) should increase the pH to 9.0 or greater. ³ Requires finished water pH to have or raised to minimum of 7.2 and alkalinity of at least 20 mg/L as CaCO ₃ .		
Rationale for the proposed optimal corrosion control treatment is:		



10. Simultaneous Compliance

Evaluation of Secondary Impacts ¹					
Source Name (if more than one source, copy this section and complete for each source)					
Source ID					
Source Type					
Questions	Adjust pH	Adjust DIC (Alkalinity)	Add Ortho-phosphate	Add Silicate	Add Blended Phosphate
Is the chemical available (YES or NO)?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Do you feel your current operators will have difficulty using this chemical and operating the treatment?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
What are the relative costs for each treatment option? (High, Medium, Low) (Provide your best estimate, which should include cost for the chemical, any equipment that needs to be purchased, increased operator time, etc...) (Indicate what dosage cost comparisons are based on.)	High ☐ Medium ☐ Low ☐	High ☐ Medium ☐ Low ☐	High ☐ Medium ☐ Low ☐	High ☐ Medium ☐ Low ☐	High ☐ Medium ☐ Low ☐
Will this treatment change potentially causes excessive scaling (See OCCT Manual Exhibit 3-2)?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Additional Notes/Comments					

¹ Complete for each corrosion control treatment option identified in Exhibit E.1.



11. Additional Content:

At a minimum, the system shall include the following additional information as part of the corrosion control feasibility study:

☐	A distribution system map that includes a sample site location map for lead and copper tap monitoring and water quality parameter monitoring.
☐	An existing system schematic indicating all sources of supply, entry points, and treatment processes.
☐	A proposed schedule for the completion of remaining corrosion control treatment compliance steps, including, but not limited to, treatment design and permit application submittal, financing, construction, and initiation of operation.
☐	Attach a schematic of the proposed system indicating all sources of supply, entry points, and treatment processes. Include feed pump information (make, model number, HP, etc.), sampling locations for process control, contact times, and mixing conditions required to achieve stable finished water.



LCRI Alternative Compliance Options Recommendation Form for Community Water Systems

The Pennsylvania Safe Drinking Water regulations provide compliance flexibility options for small community water systems and nontransient noncommunity water systems that exceed the lead action level, but not the copper action level. These systems must meet certain criteria in order to recommend to the Department of Environmental Protection (Department) that they exercise one of the alternative compliance options. Community water systems may use this form to submit an alternative compliance recommendation to the Department.

Instructions:

- Complete the 'General System Information' table ([See Table 1](#)).
- Complete the information for the compliance alternative option that is being recommended.
 - Alternative Compliance Option #1: Point of Use (POU) Devices ([See Table 2](#))
 - *POU Devices:* Enter the make, model, and number of each type of POU device that would be installed. Enter the total number of POU devices to be installed. Check the appropriate box to indicate the independent third-party certification of the device. Indicate whether device specifications are attached to the form or available via a provided link.
 - *POU Device Maintenance Schedule:* Enter the routine tasks for maintaining the device. Certify that the device will have a mechanical indicator to notify the user when maintenance is required. Certify that the device maintenance frequency will be at least as frequent as the manufacturer's recommendations. Enter the frequency for that task such as monthly or annually.
 - *POU Device Monitoring:* Fill in the blank with the minimum number of devices that will be monitored annually (i.e. a minimum of one-third of the total number of POU devices installed).
 - Alternative Compliance Option #2: Replacement of Lead-bearing Plumbing ([See Table 3](#))
 - *Replacement Schedule:* Complete this section to provide the schedule for lead-bearing plumbing replacement.
 - *Plan to Provide Potable Water During Replacement:* Complete this section to describe how potable water will be provided to impacted consumers during the replacement of lead-bearing plumbing.
- Complete the certification table to indicate that the public water system (PWS) meets all applicable alternative compliance option criteria ([See Table 4](#)).
 - If the recommended option is the installation of POU devices, check the boxes to certify that the POU devices are installed, monitored, and maintained as required under 25 Pa Code §109.1102.
 - *Note: If the recommended option is the replacement of lead-bearing plumbing, skip these checkboxes.*
 - If the recommended option is the replacement of lead-bearing plumbing, check the box to certify that the PWS does not have lead, galvanized requiring replacement (GRR) or unknown service lines.
 - *Note: If the recommended option is the installation of POU devices, skip this checkbox.*
 - The person completing the form will sign and date it, along with the responsible official (if different).
- Submit this form to the Department within three (3) months of the end of the sampling period in which the lead action level exceedance occurred.
- If the Department has disapproved of the selected compliance alternative, qualifying systems may submit a recommendation for the other compliance alternative option. Systems opting to recommend the remaining compliance alternative option shall submit this to the Department within three (3) months of receiving the Department's written disapproval.

- The completed form is to be submitted via the [Public Upload with Payment Submission](#) webpage. If using the Public Upload option, the (insert dollar amount) fee must be paid online at the time of submission.
- Users will first be asked whether they are resubmitting a form that was previously submitted to the Department and requires an update. For all new submissions, including submissions after receiving Department disapproval, select “No” and click Continue.
- The applicant’s information should be provided under the **Submitter Information** header.
- For this **general permit/permit amendment**, users should select **Safe Drinking Water SDW** from the drop-down menu next to **Filter Submission Types by Program (optional)** then select **SDW LCRI Alternative Compliance Options Recommendation Form (3940-PM-BSDW0004)**.
- Please enter your PWSID No. in the **Permit#/Project#** box.
- Provide the [Employer Identification Number \(EIN\)](#) for the facility the water system serves in **Applicant EIN** box.
- Enter the address of the facility as listed on the application under the Project Address header.
- Select **Add County/Municipality/Region** and select the **County and Municipality** in which the project is located from the drop-down menus. Check the box next to **Primary** to indicate if this is the primary **County and Municipality** for the project.
- The **Region/District** office will automatically populate based on the **County**. The submittal will be sent to the offices(s) listed.

For more detailed instruction see [Instructions for Public Upload with Payment for Safe Drinking Water Permit Applications](#).

You can track the status of your application using the Department of Environmental Protection’s online Permit Tracker, available at www.pa.gov/agencies/dep/data-and-tools/track-permits. Instructions can be found on the Permit Tracker’s home page under “Learn more about permit tracking.”

1. General System Information			
PWS Name:		PWSID:	
System Type: Community Water System		Population:	
PWS Address:			
Name of Responsible Official:		Phone #:	
Email Address:			
Name of Certified Operator:		Phone #:	
Email Address:			
Name of Individual Completing this Form:		Title:	
2. Alternative Compliance Option #1: Point of Use (POU) Devices			☐ N/A
Description of Option: System shall install, maintain, and monitor POU devices in each household and each building served by the water system. These devices are to be installed on every tap that is used for cooking or drinking. The devices shall be installed in accordance with a Department-specified schedule, not to exceed three (3) months. The POU devices must meet the applicable ANSI/NSF standard to reduce lead in drinking water and be independently certified as such.			
POU Devices			
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
		Total Number of POU Devices:	
3 rd Party Certification:	☐ ANSI/NSF Std. 53	☐ ANSI/NSF Std. 58	☐ Other:
Specifications:	☐ Attached	☐ Link:	
POU Device Maintenance Schedule			
Is the POU device equipped with a mechanical warning (e.g. light indicator) to ensure the consumer is automatically notified of operational problems?			☐ Yes
Will the system maintain the POU devices on each required tap within all households and buildings?			☐ Yes
Will the POU device be maintained in accordance with the manufacturer's recommendations or on a more frequent schedule?			☐ Yes
Task:		Frequency:	
Task:		Frequency:	
Task:		Frequency:	
Task:		Frequency:	
Task:		Frequency:	

Task:	Frequency:
POU Device Monitoring	
Monitoring will be conducted at POU devices, at a minimum, each year in accordance with 25 Pa. Code § 109.1103	
Access	
How will the system access all required taps within all households and buildings?	
<u>Attached access agreement/correspondence providing proof of allowable access to all:</u>	

3. Alternative Compliance Option #2: Replacement of Lead-bearing Plumbing	☐ N/A
Description: System shall replace all potable plumbing that is not lead-free. This replacement will take place in accordance with a Department-approved schedule, not to exceed 1 (one) year.	
Replacement Schedule:	
Plan for Providing Potable Water During Replacement:	
How will the system provide proof certifying the replacement of all lead-bearing plumbing (i.e. work order forms)?	
Access	
How will the system access all premise plumbing and service connections?	
Is a schematic attached showing all lead piping and premise plumbing to be replaced? ☐ Yes	
4. Certification	
As the operator of the Public Water System (PWS) indicated above, I certify that the PWS meets all applicable criteria below, to recommend an alternative compliance option. ✓ Did not exceed the Copper Action Level ✓ Serves a population of $\leq 3,300$. ✓ Has control over all premise plumbing and service connections. ✓ Has access to all premise plumbing and service connections.	
<i>(Only required if Alternative Compliance Option #1: POU devices is being recommended)</i> ☐ I certify that the PWS shall install and maintain all POU devices. ☐ I certify that the PWS shall monitor 1/3 of POU devices every year and all POU within 3 years. ☐ I certify that the PWS shall provide public education material. ☐ I certify that the PWS shall provide documents certifying maintenance of POU devices.	
<i>(Only required if Alternative Compliance Option #2: Replacement of Lead-bearing Plumbing is being recommended)</i> ☐ I certify that the PWS is not served by lead, galvanized requiring replacement (GRR), or unknown service lines.	
Signature of Individual Completing this Form: (if different from System Operator)	Date:
Signature of System Operator:	Date:

Department Use Only	
Date Received:	Alternative Compliance Option Determination: ☐ Approved ☐ Disapproved
Date Reviewed:	Reviewer:
Date Notified:	Written Notification: ☐ Letter ☐ Email ☐ Other
Notes:	



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

LCRI Alternative Compliance Options Recommendation Form for Nontransient Noncommunity Water Systems

The Pennsylvania Safe Drinking Water regulations provide compliance flexibility options for small community water systems and nontransient noncommunity water systems that exceed the lead action level, but not the copper action level. These systems must meet certain criteria in order to recommend to the Department that they exercise one of the alternative compliance options. Nontransient noncommunity water systems may use this form to submit an alternative compliance recommendation to the Department.

Instructions:

- Complete the 'General System Information' table ([See Table 1](#)).
- Complete the information for the compliance alternative option that is being recommended.
 - Alternative Compliance Option #1: Point of Use Devices ([See Table 2](#))
 - *POU Devices*: Enter the make, model, and number of each type of POU device that would be installed. Enter the total number of POU devices to be installed. Check the appropriate box to indicate the independent third-party certification of the device. Indicate whether device specifications are attached to the form or available via a provided link.
 - *POU Device Maintenance Schedule*: Enter the routine tasks for maintaining the device. Certify that the device will have a mechanical indicator to notify the user when maintenance is required. Certify that the device maintenance frequency will be at least as frequent as the manufacturer's recommendations. Enter the frequency for that task such as monthly or annually.
 - *POU Device Monitoring*: Fill in the blank with the minimum number of devices that will be monitored annually (i.e. a minimum of one-third of the total number of POU devices installed).
 - Alternative Compliance Option #2: Replacement of Lead-bearing Plumbing ([See Table 3](#))
 - *Replacement Schedule*: Complete this section to provide the schedule for lead-bearing plumbing replacement.
 - *Plan to Provide Potable Water During Replacement*: Complete this section to describe how potable water will be provided to impacted consumers during the replacement of lead-bearing plumbing.
- Complete the certification table to indicate that the public water system (PWS) meets all applicable alternative compliance option criteria ([See Table 4](#)).
 - If the recommended option is the installation of POU devices, check the boxes to certify that the POU devices are installed, monitored, and maintained as required 25 Pa Code §109.1102.
 - *Note: If the recommended option is the replacement of lead-bearing plumbing, skip these checkboxes.*
 - If the recommended option is the replacement of lead-bearing plumbing, check the box to certify that the PWS does not have lead, galvanized requiring replacement (GRR) or unknown service lines.
 - *Note: If the recommended option is the installation of POU devices, skip this checkbox.*
 - The person completing the form will sign and date it, along with the responsible official (if different).
- Submit this form to the Department within three (3) months of the end of the sampling period in which the lead action level exceedance occurred.
- If the Department has disapproved of the selected compliance alternative, qualifying systems may submit a recommendation for the other compliance alternative option. Systems opting to recommend the remaining compliance alternative option shall submit this to the Department within three (3) months of receiving the Department's written disapproval.

- The completed form is to be submitted to the Department via the [Public Upload with Payment Submission](#) webpage. If using the Public Upload option, the (insert dollar amount) fee must be paid online at the time of submission.
- Users will first be asked whether they are resubmitting a form that was previously submitted to the Department and requires an update. For all new submissions, including submissions after receiving Department disapproval, select “No” and click Continue.
- The applicant’s information should be provided under the **Submitter Information** header.
- For this recommendation form, users should select **Safe Drinking Water SDW** from the drop-down menu next to **Filter Submission Types by Program (optional)** then select **SDW LCRI Alternative Compliance Options Recommendation Form (3940-PM-BSDW0004)**.
- Please enter your PWSID No. in the **Permit#/Project#** box.
- Provide the [Employer Identification Number \(EIN\)](#) for the facility the water system serves in **Applicant EIN** box.
- Enter the address of the facility as listed on the application under the Project Address header.
- Select **Add County/Municipality/Region** and select the **County and Municipality** in which the project is located from the drop-down menus. Check the box next to **Primary** to indicate if this is the primary **County and Municipality** for the project.
- The **Region/District** office will automatically populate based on the **County**. The submittal will be sent to the offices(s) listed.

For more detailed instruction see [Instructions for Public Upload with Payment for Safe Drinking Water Permit Applications](#).

You can track the status of your application using the Department of Environmental Protection’s online Permit Tracker, available at www.pa.gov/agencies/dep/data-and-tools/track-permits. Instructions can be found on the Permit Tracker’s home page under “Learn more about permit tracking.”

1. General System Information			
PWS Name:		PWSID:	
System Type: Nontransient Noncommunity Water System		Population:	
PWS Address:			
Name of Responsible Official:		Phone #:	
Email Address:			
Name of Certified Operator:		Phone #:	
Email Address:			
Name of Individual Completing this Form:		Title:	
2. Alternative Compliance Option #1: Point of Use (POU) Devices			☐ N/A
Description of Option: System shall install, maintain, and monitor POU devices in each household and each building served by the water system. These devices are to be installed on every tap that is used for cooking or drinking. The devices will be installed in accordance with a Department-specified schedule, not to exceed three (3) months. The POU devices must meet the applicable ANSI/NSF standard to reduce lead in drinking water and be independently certified as such.			
POU Devices			
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
Make:	Model:	No. of Devices:	
		Total Number of POU Devices:	
3 rd Party Certification:	☐ ANSI/NSF Std. 53	☐ ANSI/NSF Std. 58	☐ Other:
Specifications:	☐ Attached	☐ Link:	
POU Device Maintenance Schedule			
Is the POU device equipped with a mechanical warning (e.g. light indicator) to ensure the consumer is automatically notified of operational problems?			☐ Yes
Will the system maintain the POU devices on each required tap within all households and buildings?			☐ Yes
Will the POU device be maintained in accordance with the manufacturer's recommendations or on a more frequent schedule?			☐ Yes
Task:		Frequency:	
Task:		Frequency:	
Task:		Frequency:	
Task:		Frequency:	
Task:		Frequency:	

Task:	Frequency:
POU Device Monitoring	
Monitoring will be conducted at POU devices, at a minimum, each year in accordance with 25 Pa. Code § 109.1103	
Access	
How will the system access all required taps within all households and buildings?	
<u>Attached access agreement/correspondence providing proof of allowable access to all:</u>	

3. Alternative Compliance Option #2: Replacement of Lead-bearing Plumbing	☐ N/A
Description: System shall replace all potable plumbing that is not lead-free. This replacement will take place in accordance with a Department-approved schedule, not to exceed 1 (one) year.	
Replacement Schedule:	
Plan for Providing Potable Water During Replacement:	
How will the system provide proof certifying the replacement of all lead-bearing plumbing (i.e. work order forms)?	
Access	
How will the system access all premise plumbing and service connections?	
Is a schematic attached showing all lead piping and premise plumbing to be replaced? ☐ Yes	
4. Certification	
As the operator of the Public Water System (PWS) indicated above, I certify that the PWS meets all applicable criteria below, to recommend an alternative compliance option. ✓ Did not exceed the Copper Action Level ✓ Has control over all plumbing in its buildings. ✓ Has access to all premise plumbing in its buildings.	
<i>(Only required if Alternative Compliance Option #1: POU devices is being recommended)</i> ☐ I certify that the PWS shall install and maintain all POU devices. ☐ I certify that the PWS shall monitor 1/3 of POU devices every year and all POU within 3 years. ☐ I certify that the PWS shall provide public education material. ☐ I certify that the PWS shall provide documents certifying maintenance of POU devices.	
<i>(Only required if Alternative Compliance Option #2: Replacement of Lead-bearing Plumbing is being recommended)</i> ☐ I certify that the PWS is not served by lead, galvanized requiring replacement (GRR), or unknown service lines.	
Signature of Individual Completing this Form: (if different from System Operator)	Date:
Signature of System Operator:	Date:

<i>Department Use Only</i>	
Date Received:	Alternative Compliance Option Determination: ☐ Approved ☐ Disapproved
Date Reviewed:	Reviewer:
Date Notified:	Written Notification: ☐ Letter ☐ Email ☐ Other
Notes:	

February 26, 2026

Edgar Chescattie
Director
Bureau of Safe Drinking Water
P.O. Box 8467
Harrisburg, PA 17105-8467

Dear Ed:

The Public Water System Technical Assistance Center (PWS-TAC) Board met on February 12, 2026, to review the Department's proposed regulations for the Lead & Copper Rule Improvements (LCRI).

The PWS-TAC Board would like to make the following recommendations concerning these Chapter 109 revisions.

1. The definition of Connector should be edited to add the following text as the 2nd sentence:
"The connector may be made from a variety of materials."

The revised definition would be "Connector—Also referred to as a gooseneck or pigtail, is a short segment of piping, not exceeding 3 feet, which can be bent and used for connections between service piping. The connector may be made from a variety of materials. Lead connectors exceeding 3 feet are considered to be part of a lead service line. Lead connectors may result in a galvanized service line needing replacement if the lead connector is upstream of the galvanized line."

The motion passed by a unanimous "Yay" vote.

2. DEP should work with EPA to ensure clarity and strong language in technical guidance on how the 90th percentile value is to be calculated when more than the minimum number of samples are received from lower Tier sites and are analyzed and reported. The guidance should include examples of what sample results are to be ranked and included in the calculation, especially when results from Tier 3, 4 or 5 sites that are not included in the calculation are higher than results from Tier 1 or 2 sites.

The motion passed by a unanimous "Yay" vote.

3. Subparagraph (iv) in § 109.1102(b)(1.1), which reads "Large water systems with CCT that exceed the lead PQL but do not exceed the lead or copper action level may be required by the Department to complete the reoptimized OCCT steps in paragraph (2.1)." should be deleted because DEP has the authority under subparagraph (ii) to require water systems to reoptimize OCCT. DEP should also create written SOPs and training for staff to ensure consistent implementation in determining when systems should be required to reoptimize OCCT.

The motion passed: 11 "Yays" and 5 abstentions.

4. In the schedule for OCCT outlined in paragraphs §§ 109.1102 (b)(2.1) and (b)(2.2), DEP should combine *Step 2 – Complete a CCT feasibility study for reoptimization* with *Step 3 – Obtain a permit for construction or modification of OCCT* to show DEP is consistent with the federal timeline of 36 months.

The motion passed by a unanimous “Yay” vote.

5. The WQP monitoring language in § 109.1103(b.1) that states “from taps used to provide water for human consumption” should be changed to match the federal language.

The motion passed: 15 “Yays” and 1 abstention.

6. DEP and EPA should work with their respective Departments of Education and Human Services in creating a marketing/communications and notification plan including templates (in English and Spanish), for sampling in schools and child care facilities to assist PWSs in meeting the LCRI requirements for notification and sampling in schools and child care facilities.

The motion passed by a unanimous “Yay” vote.

The PWS-TAC Board acknowledges the efforts of the Department in developing this proposed rulemaking and the members look forward to working with the Department as these regulations are finalized.

Sincerely,



Sharon Fillmann
Chairperson
Public Water System Technical Assistance Center Board

cc: PWS-TAC Board Members

**FACE SHEET
FOR FILING DOCUMENTS
WITH THE LEGISLATIVE REFERENCE
BUREAU**

(Pursuant to Commonwealth Documents Law)

RECEIVED

Independent Regulatory
Review Commission

September 14, 2026

DO NOT WRITE IN THIS SPACE

Copy below is hereby approved as to form and legality.
Attorney General

By:

Amy M. Elliott
(Deputy Attorney General)

8/19/2026

DATE OF APPROVAL

☒ Check if applicable

Copy not approved. Objections attached.

Copy below is hereby certified to be true and
correct copy of a document issued, prescribed or
promulgated by:

**DEPARTMENT OF ENVIRONMENTAL
PROTECTION
ENVIRONMENTAL QUALITY BOARD**

(AGENCY)

DOCUMENT/FISCAL NOTE NO. 7-576

DATE OF ADOPTION June 9, 2026

BY

Jessica L Shirley

TITLE **JESSICA SHIRLEY
CHAIRPERSON**

EXECUTIVE OFFICER CHAIRPERSON OR SECRETARY

Copy below is hereby approved as to form and legality
Executive or Independent Agencies

BY

Cynthia K Montz

07/23/2026

DATE OF APPROVAL

(Deputy General Counsel)

~~(Chief Counsel - Independent Agency)~~
(Strike inapplicable title)

☒ Check if applicable. No Attorney General Approval
or objection within 30 days after submission.

NOTICE OF PROPOSED RULEMAKING

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD**

Safe Drinking Water Revised Lead and Copper Rule Improvements

25 Pa. Code Chapter 109

**PROPOSED RULEMAKING
ENVIRONMENTAL QUALITY BOARD
[25 PA. CODE CH. 109]
Safe Drinking Water Revised Lead and Copper Rule Improvements**

The Environmental Quality Board (Board) proposes to amend Chapter 109 (relating to safe drinking water) to read as set forth in Annex A. The proposed amendments ensure that the Commonwealth's safe drinking water regulations in Chapter 109 remain at least as stringent as 40 CFR Part 141 (relating to National Primary Drinking Water Regulations) promulgated by the United States Environmental Protection Agency (EPA), which is a condition of the Department of Environmental Protection (Department) retaining primary enforcement responsibility for public water systems in this Commonwealth under the Federal Safe Drinking Water Act (42 U.S.C. §§ 300f—300j-27). The proposed amendments to Chapter 109 focus primarily on Subchapter K (relating to lead and copper).

The Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper, also known as the Lead and Copper Rule (1991 Federal LCR), published by the EPA at 56 FR 26460 (June 7, 1991), was the first National Primary Drinking Water Regulation that required actions by public water systems to reduce levels of lead and copper in drinking water. To further reduce lead and copper in drinking water provided by public water systems, the EPA published the National Primary Drinking Water Regulations: Lead and Copper Rule Revisions (2021 Federal LCRR) at 86 FR 4198 (January 15, 2021), and the final National Primary Drinking Water Regulations for Lead and Copper: Improvements, also known as the Lead and Copper Rule Improvements (2024 Federal LCRI), at 89 FR 86418 (October 30, 2024).

The proposed amendments will improve public health protection by reducing exposure to lead in drinking water for consumers of water provided by public water systems and educating them on the dangers of lead exposure. The proposed amendments include provisions that: require public water systems to complete and submit a baseline 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 90th percentile compliance value; require sampling in schools and child care facilities; and require additional actions for public water systems with multiple lead action level exceedances.

This proposed rulemaking was adopted by the Board at its meeting of June 9, 2026.

A. Effective Date

This proposed rulemaking will be effective upon final-form publication in the *Pennsylvania Bulletin*.

B. Contact Persons

For further information contact Edgar B. Chescattie, Director, Bureau of Safe Drinking Water, P.O. Box 8467, Rachel Carson State Office Building, Harrisburg, PA 17105-8467, (717) 787-

9633; or Leda J. Lacomba, Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the Pennsylvania Hamilton Relay Service at (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available on the Department's website at www.pa.gov/agencies/dep.html (select "Public Participation," then "Environmental Quality Board," then navigate to the Board meeting of June 9, 2026).

C. Statutory Authority

This proposed rulemaking is being made under the authority of section 4 of the Pennsylvania Safe Drinking Water Act (35 P.S. § 721.4), which grants the Board the authority to adopt rules and regulations governing the provision of drinking water to the public, and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), which authorizes the Board to promulgate rules and regulations necessary for the performance of the work of the Department.

D. Background and Purpose

Sources and health effects of lead in drinking water

Lead can be found in drinking water when plumbing materials containing lead corrode. Lead corrosion of plumbing materials and fixtures is more prevalent when the drinking water is highly acidic or has a low mineral content. The most common sources of lead in drinking water are lead service lines, lead pipes, faucets and fixtures. When a home is served by a lead service line, the most significant source of lead in drinking water is the lead service line. When the home is not served by a lead service line, the most significant source of lead in drinking water is from brass or chrome-plated brass faucets and plumbing with lead solder. See 89 FR 86418, 86429. The EPA estimates that drinking water makes up at least 20% of a person's total exposure to lead. See 56 FR 26460, 26548.

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. Infants, young children and pregnant women are especially vulnerable to the physical, cognitive and behavioral effects of lead due to their sensitive developmental stages. See 89 FR 86418, 86429.

Copper is an element required for several metabolic processes; however, an excess of copper intake is toxic and can be linked to various health effects. The most common health effect is acute gastrointestinal conditions which occur among adults and children. Chronic exposure to copper is a concern for people with Wilson's disease, an autosomal recessive genetic disorder that affects 1 in 30,000 individuals. These individuals are prone to copper accumulation in body tissue, which can lead to liver damage, and neurological or psychiatric symptoms, or both. See 89 FR 86418, 86430.

Federal regulatory background

The goal of the 1991 Federal LCR was to improve health by reducing lead and copper levels at consumer taps. This rule established a maximum contaminant level goal for lead of zero. The maximum contaminant level goal is set at the level at which no known or anticipated adverse effects on the health of persons would occur, allowing for a margin of safety. The key provision of this rule 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. This rule established action levels of 0.015 milligrams per liter (mg/L) for lead and 1.3 mg/L for copper. The EPA published minor and short-term revisions to the 1991 Federal LCR between 2000 and 2007.

The EPA published the 2021 Federal LCRR with the goal of addressing long-term issues on key areas of regulation. These areas included identification of significant sources of lead in drinking water, enhancing CCT requirements, adding a new small system flexibility option for treatment, closing gaps in lead service line replacement requirements, increasing sampling reliability, improving risk communication, new consumer notifications, and new lead monitoring in schools and child care facilities. This rule also addressed prioritization of sampling sites more likely to contain lead.

The 2024 Federal LCRI builds upon and revises the 1991 Federal LCR and the 2021 Federal LCRR to strengthen public health protection and improve implementation in the following areas: development of a service line inventory to locate lead pipes in the distribution system; replacement of lead service lines within 10 years after the November 1, 2027, implementation date of the 2024 LCRI; strengthening the compliance steps for optimal CCT; updating the tap sampling requirements for lead and copper to improve the reliability of results; lowering of the lead action level and updating the calculation for the 90th percentile compliance value; protecting children in schools and child care facilities; and requiring additional actions for public water systems with multiple lead action level exceedances.

Service line inventory

Knowing where lead pipes are located is critical to replacing them efficiently and equitably, as well as for informing consumers so they can take actions to reduce their exposure to lead. To help identify areas with the greatest potential for lead contamination of drinking water and most in need of remediation, the 2021 Federal LCRR and 2024 Federal LCRI require that all public water systems complete and maintain a service line inventory. The 2024 Federal LCRI also requires public water systems to annually update the inventory and to identify the material of all service lines by the mandatory service line replacement deadline. Public water systems are required to include lead connectors in their inventories and must implement a validation process to ensure the service line inventory is accurate. Under the 2024 Federal LCRI, all public water systems are also required to make their service line inventory publicly available.

The EPA definition of “lead service line” in 40 CFR 141.2 (relating to definitions) is “a service line that is made of lead or where a portion of the service line is made of lead.” The EPA

recognizes the public health concern associated with lead connectors because the 2024 Federal LCRI requires public water systems to identify lead connectors in the service line inventory and replace them when they are encountered. The EPA definition of a galvanized requiring replacement (GRR) service line in 40 CFR 141.2 specifies that a galvanized service line needs to be replaced if the line is currently or ever was downstream of any portion of a lead or lead status unknown service line. Research has shown that galvanized lines absorb lead from upstream sources. (McFadden, M. et al. (2011). “Contributions to drinking water lead from galvanized iron corrosion scales.” *Journal—American Water Works Association*, 103, 76—89. <https://doi.org/10.1002/j.1551-8833.2011.tb11437.x>.) Research has also shown that most lead goosenecks, pigtails and connectors are connected to a galvanized service line because galvanized lines are more rigid than other service line materials (such as lead, copper and plastic). (HDR, Engineering Inc. (2009). “An analysis of the correlation between lead released from galvanized iron piping and the contents of lead in drinking water.” archive.epa.gov/region03/dclead/web/pdf/galvanized%20project%20report.pdf.) (Clark, B. N., et al. (2015). “Lead release to drinking water from galvanized steel pipe coatings.” *Environmental Engineering Science*, 32(8), 713—721, doi:10.1089/ees.2015.0073.)

This proposed rulemaking incorporates a lead connector into the definition of “GRR service line” in § 109.1 (relating to definitions). This rulemaking proposes to define a GRR service line as a “service line that is iron or steel piping that has been dipped in zinc to prevent corrosion and rusting and is currently, or ever was, downstream of any portion of a lead service line or a lead connector, or is currently downstream of a lead status unknown service line. In this definition, downstream means in the direction of flow through the service line.” The Federal definition of “GRR service line” does not include lead connectors, so the definition of that term in this proposed rulemaking is more expansive, and therefore more stringent, than the Federal definition. However, the EPA recognizes the public health concern associated with lead connectors because the 2024 Federal LCRI requires systems to identify lead connectors in their distribution system and replace them when they are encountered. The Department believes it is important to include lead connectors in the definition of this term for the previously-stated reasons to protect public health.

The 2024 Federal LCRI requires public water systems to identify a validation pool consisting of all service lines categorized as “non-lead.” This validation pool excludes nonlead service lines identified by records showing the service line was installed after June 19, 1988, or after the compliance date of a state or local law prohibiting the use of service lines that do not meet the 1986 definition of “lead free” in accordance with section 1417 of the Federal Safe Drinking Water Act (42 U.S.C. § 300g-6), as amended in 1986 (Public Law 99-339, 100 Stat. 651), whichever is earlier. The proposed rulemaking excludes nonlead service lines from the validation pool that are identified by records showing the service line was installed after January 6, 1991, the effective date of the Plumbing System Lead Ban and Notification Act (35 P.S. §§ 723.1—723.17). January 6, 1991, is identified as the installation date for a service line to be considered lead free because public water systems in this Commonwealth were legally allowed to continue using plumbing materials containing lead until the effective date of section 5 of the Plumbing System Lead Ban and Notification Act (35 P.S. § 723.5). This date is later than required by the 2024 Federal LCRI, so this proposed provision is more stringent than the 2024 Federal LCRI. The Department believes this additional stringency is necessary to protect public health because

public water systems in this Commonwealth were legally allowed to continue using plumbing materials containing lead until the later date of January 6, 1991.

The proposed rulemaking also specifies that the service line and connector inventory be submitted in a format that is acceptable to the Department, which is not a requirement in the corresponding Federal regulations, so this proposed provision is more stringent than required by the 2024 Federal LCRI. The Department created a service line inventory form to ensure that public water systems provide the required information in a consistent format that can be efficiently incorporated into the Department's existing data system and then reported to the EPA. This provision is consistent with other existing provisions when public water systems are required to submit information in a format acceptable to the Department.

The definitions, service line inventory and validation pool requirements in this proposed rulemaking are consistent with the 2024 Federal LCRI.

Lead pipe replacement within 10 years

Based on more than 30 years of implementing the 1991 Federal LCR, the EPA determined that requiring lead service line replacements based on tap sampling and 90th percentile lead levels alone is insufficient to protect public health. When present, lead service lines are the most significant source of lead in drinking water. Even when public water systems with lead and GRR service lines have implemented optimal CCT, lead can still be released from these service lines. See 89 FR 86418, 86445. Lead service line replacement is a highly effective treatment technique for reducing lead levels in drinking water. It has been part of the EPA's National Primary Drinking Water Regulations since the 1991 Federal LCR.

All public water systems with lead or GRR service lines must prepare a service line replacement plan which facilitates the equitable replacement of all lead or GRR service lines by the replacement deadline. This service line replacement plan must be publicly available and must be updated annually to include new or updated information. Replacement of lead and GRR service lines will significantly reduce the amount of lead in drinking water. See 89 FR 86418, 86421.

Under the 2024 Federal LCRI, public water systems are required to replace lead connectors and all lead and GRR service lines under their control no later than 10 years after the November 1, 2027, implementation date, regardless of lead levels occurring in tap or other drinking water samples. Public water systems must identify all service lines of unknown composition (lead status unknown) to ensure all lead and GRR service lines are replaced by the replacement deadline. The 2024 Federal LCRI stipulates replacement of the entire service line so that no portion of a lead or GRR service line remains. When property owner consent is required for a system to access the service line, systems must make a reasonable effort to engage property owners about full service line replacement. Public water systems with a high proportion of lead service lines may be eligible for a deferred deadline to complete full service line replacements, if specific criteria are met and the extension is approved by the Department. Replacement of lead and GRR service lines will result in greater public health protection by eliminating a significant source of lead exposure. See 89 FR 86418, 86419.

However, the EPA also recognizes that partial lead or GRR service line replacements do not prevent known or anticipated adverse health effects and may cause adverse health effects. See 89 FR 86418, 86431, 86450, 86454, 86455. Accordingly, the 2024 Federal LCRI prohibits public water systems from conducting a partial lead or GRR service line replacement except in limited circumstances, such as part of an emergency repair or to facilitate the completion of planned infrastructure work. Public water systems that conduct partial service line replacement are required to comply with notification requirements and other measures to mitigate the potential increased levels of lead as a result of the partial replacement.

The lead service line replacement plan and replacement requirements for lead service lines and lead connectors in this proposed rulemaking are consistent with the 2024 Federal LCRI.

Expanding CCT requirements and compliance options for small water systems

The EPA 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. See 89 FR 86418, 86551. CCT refers to methods (for example, alkalinity/pH adjustment and addition of corrosion inhibitors) that public water systems can take to reduce the leaching of lead and copper into drinking water from service lines and premise plumbing. CCT has been part of the treatment technique since the 1991 Federal LCR. The 2024 Federal LCRI defines optimal CCT as “the corrosion control treatment that minimizes the lead and copper concentrations at users’ taps while ensuring that the treatment does not cause the water system to violate any National Primary Drinking Water Regulations.” Optimal CCT can be effective at reducing lead levels, but it requires consistent proper operation, water quality parameter (WQP) monitoring, and tap sampling to ensure it is effective at reducing lead levels. See 89 FR 86418, 86498.

Public water systems without CCT must evaluate and install CCT if a 90th percentile lead or copper value exceeds the action level. Public water systems with CCT are required to reoptimize CCT if a 90th percentile lead or copper result exceeds the action level. Depending on the population served, public water systems must either conduct treatment studies or consult with the Department to determine the most appropriate treatment steps. Public water systems must also operate and maintain optimal CCT and reoptimized optimal CCT. The 2024 Federal LCRI also requires large and medium water systems with lead service lines that must optimize or reoptimize optimal CCT to conduct a pipe rig loop study and install or reoptimize CCT if they are unable to replace a minimum of 20% of the lead or GRR service lines in their distribution system annually or are unable to replace 100% of their lead and GRR service lines within 5 years. Public water systems need to understand how changes in their CCT affect the existing pipe scale of lead service lines. A pipe rig loop study using harvested lead pipe from the distribution systems effectively demonstrates how that scale will interact with the CCT options and will provide vital information to determine the optimal CCT option. See 89 FR 86418, 86504, 86505. The 2024 Federal LCRI also includes a requirement for public water systems without lead and GRR service lines to reoptimize CCT again if they exceed the lead action level after completing their service line replacement program.

Flexibility is important for small water systems so they can protect public health by taking the treatment actions that make sense for their consumers. Because maintaining optimal CCT is an ongoing process and finding and retaining skilled operators can be especially challenging for small systems, the 2024 Federal LCRI provides two alternatives to CCT for small systems that exceed the lead action level: point-of-use treatment; or replacement of all lead-bearing plumbing materials. The 2024 Federal LCRI allows small community water systems (serving 3,300 or fewer persons) and nontransient noncommunity water systems up to 1 year to install a point-of-use device on taps that are used for cooking or drinking or to replace all lead-bearing plumbing. However, the 2024 Federal LCRI also requires water systems that do not fulfill the requirements of the alternate compliance option to meet the CCT steps and deadlines, which means these water systems are required to obtain state approval of CCT within the same 24-month period.

These alternate compliance flexibility options will benefit small community water systems (serving less than 3,300 people) such as assisted living facilities and nontransient noncommunity water systems such as schools. Therefore, this proposed rulemaking includes the point-of-use and replacement of lead-bearing plumbing compliance alternatives for small systems. For these flexibility options to be implementable, this proposed rulemaking clarifies that the public water system must have control over and access to all plumbing in buildings served by the system. This proposed rulemaking also clarifies the process by which these small water systems who are denied approval for the first compliance alternative may request approval for the other compliance alternative or revert to the compliance steps to install CCT, instead of allowing the state to mandate the other compliance option. Interim deadlines are included to ensure these small water systems comply with the deadlines for installing optimal CCT if both flexibility options are denied or if the small water system fails to meet the compliance requirements. For example, a small water system choosing a compliance flexibility option is required to submit a recommendation to the Department within 3 months of the end of the tap sampling period in which the lead action level exceedance occurred. If the recommendation is not approved, the small water system may submit a recommendation for the other compliance option within 3 months after receiving the disapproval from the Department. These interim deadlines are more stringent than the deadlines in the 2024 Federal LCRI. The Department believes these interim deadlines are needed to ensure the small water system has enough time to implement the approved compliance option. These deadlines also allow time for the small water system to complete any required CCT steps by the specified CCT deadline if the small water system fails to fully implement and comply with the approved flexibility option.

The CCT requirements and small water system compliance flexibility options in this proposed rulemaking are consistent with the 2024 Federal LCRI.

Improving tap sampling and monitoring requirements

The 2024 Federal LCRI changes the criteria for selecting homes at which to collect tap samples and the way in which those samples are collected. Public water systems are required to focus tap sample site selection on sites with lead service lines, where present, and follow new procedures to collect tap samples at these sites. Under the 2024 Federal LCRI, public water systems are required to collect first-liter and fifth-liter tap samples at sites with lead service lines and use the higher of the two values when determining compliance. This method will better represent water

that has been stagnant both within the lead service line and the premise plumbing, which will help public water systems better understand the effectiveness of their CCT. See 89 FR 86418, 86419. Public water systems must collect all samples from available lead service line sites, where present, and sample sites from the highest tier available (Tier 1 is the highest and Tier 5 is the lowest) up to the minimum number of required samples. Additionally, public water systems must sample from the same sites in subsequent tap monitoring periods or, when unable to do so, must select replacement sites that meet the same tiering criteria.

The 2024 Federal LCRI requires public water systems to return to a standard 6-month monitoring frequency if the public water system has identified lead or GRR service lines in their inventory or has a 90th percentile lead level above the action level from the most recent monitoring period. However, public water systems with lead or GRR service lines may remain on reduced monitoring if the system has conducted compliance monitoring that meets the new priority sample site tiering, collects samples in accordance with the new sample collection requirements, and the system collects first-liter or first-liter and fifth-liter paired samples.

Although the National Primary Drinking Water Regulations require public water systems to receive a written determination from the state approving the reduced monitoring frequency, it does not clarify what information is necessary to demonstrate these criteria have been met. The state's approval is to be based on a review of monitoring, treatment and other relevant information submitted by the public water system. Therefore, the proposed rulemaking includes a provision that requires public water systems to provide documentation to the Department by December 31, 2027, that demonstrates the system has conducted compliance monitoring that meets the new priority sample site tiering, collects samples in accordance with the new sample collection requirements, and the system collects first-liter or first-liter and fifth-liter paired samples. This deadline is more stringent than required by the 2024 Federal LCRI and allows time for the Department's review and determination and provides sufficient time for those water systems that are not granted reduced monitoring to complete the required standard monitoring by June 30, 2028.

The National Primary Drinking Water Regulations mandate WQP monitoring at the entry point and within the distribution system to verify optimal CCT treatment is effectively operated and maintained. Although the National Primary Drinking Water Regulations require WQP monitoring at the entry point at least every 2 weeks, this proposed rulemaking is more stringent by requiring entry point monitoring each week. Weekly monitoring ensures the WQPs are maintained within specified ranges, that overfeeding or underfeeding of treatment chemicals is not occurring, and that water quality is consistently maintained because the longer the period in between monitoring, the more likely a WQP excursion may occur. WQP excursions increase the likelihood of elevated lead levels, so for optimal CCT to be effective at reducing lead levels, it requires consistent proper operation and routine WQP monitoring. The WQP monitoring provisions in this proposed rulemaking are also more stringent than the 2024 Federal LCRI by requiring groundwater systems to monitor WQPs at all entry points, rather than allowing for more limited entry point sampling as provided by 40 CFR 141.87(b)(3)(ii) (relating to monitoring requirements for water quality parameters). Since groundwater systems may have multiple sources with different water chemistry that require different types of CCT, WQP

monitoring at all entry points is necessary to ensure all treatment processes are effectively treating the sources to achieve acceptable finished water quality.

The 1991 Federal LCR required source water monitoring be conducted at the entry point for lead or copper each time a 90th percentile value exceeds the action level because source water quality can change over time. However, the 2024 Federal LCRI requires source water monitoring at the entry point for lead or copper only the first time the 90th percentile value exceeds the action level. This proposed rulemaking retains the requirement for source water monitoring at the entry point for lead or copper each time a 90th percentile value exceeds the action level, which is more stringent than the 2024 Federal LCRI. High levels of lead or copper in source water could require modifications to existing treatment processes or installation of new treatment to remove lead or copper from the source water. Therefore, source water monitoring after each action level exceedance is necessary to ensure public water systems are responding appropriately, maintaining and properly operating existing treatment or taking steps to add treatment when necessary.

The lead and copper tap sampling requirements and WQP and source water monitoring requirements in this proposed rulemaking are consistent with the 2024 Federal LCRI.

Lowering the lead action level and updating the 90th percentile calculation

The 2024 Federal LCRI lowers the lead action level from 0.015 mg/L to 0.010 mg/L, which will result in more public 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. The 1991 Federal LCR and the 2024 Federal LCRI use tiering to prioritize sites selected for tap sampling according to the likelihood of having elevated lead levels, which in turn indicates the need to assess the effectiveness of CCT to maximize reducing exposure of lead in drinking water and inform next steps to control lead releases. See 89 FR 86418, 86494.

According to the EPA, Tier 1 and Tier 2 represent the highest risk of lead in drinking water. Public water systems with a sufficient number of Tier 1 and Tier 2 sites must use results from only these sites to calculate the 90th percentile compliance value. Additional data, such as results from customer-requested samples, that meet the tiering and sampling protocol requirements should also be included in the 90th percentile calculation because this data can provide better system-wide assessment of CCT performance at those sites. See 89 FR 86418, 86495.

The 2024 Federal LCRI also updates the requirements for systems with insufficient Tier 1 and Tier 2 sites to meet their minimum required number of samples. Public water systems with insufficient Tier 1 and Tier 2 sites must use the highest sample results from Tier 1, Tier 2 and the next highest available tier to calculate the 90th percentile. Public water systems must include samples from each tier at which the system conducted compliance sampling; the highest results from among those samples equal to the minimum number of samples are then used to calculate the 90th percentile. The number of samples used for the 90th percentile calculation is only limited if a public water system does not have enough Tier 1 and 2 sites to meet the required

minimum number of samples to lessen the dilution of the 90th percentile calculation when a system has a mix of samples from lead service line sites and lower-tiered sites.

If a public water system collects all compliance samples at sites in Tiers 3—5, the number of samples used for the 90th percentile calculation is not limited, but public water systems must still prioritize compliance sampling at the highest tier available.

The lead and copper action levels, sample site tiering, sample site selection and 90th percentile calculations in this proposed rulemaking are consistent with the 2024 Federal LCRI.

Protection of children in schools and child care facilities

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 testing for lead in drinking water so these facilities may not have been tested. See 89 FR 86418, 86536. While it is within the control of public water systems to conduct public education activities and sampling, public water systems are typically not in control of premise plumbing in schools and child care facilities. Schools and child care facilities are responsible for addressing premise plumbing and remediation actions within their buildings, including installing filters or bottle-filling stations, or both. See 89 FR 86418, 83537, 86538.

Therefore, the 2024 Federal 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.

This public education and sampling is intended to educate schools and child care facilities and their users about the risks from lead in premise plumbing and the importance of sampling for lead in drinking water, to provide them with some experience testing for lead in drinking water and to help inform their decisions to mitigate lead risks, including by establishing their own sampling programs. See 89 FR 86418, 86536, 86537.

The 2024 Federal LCRI requires community water systems to conduct sampling in 20% of the elementary schools and 20% of the child care facilities they serve per year for the first 5 years after November 1, 2027. Community water systems must collect at least five samples per school and two samples per child care facility when sampling for lead. Additionally, community water systems must notify all secondary schools annually that they may request lead sampling from the system. Community water systems are required to submit any sampling results to the Department, the Department of Health and local health departments, and are required to include a statement in the Consumer Confidence Report about school and child care facility lead sampling and to direct members of the public to their local school or child care facility for information.

As previously noted, the purpose of this sampling is for public education. Tap sampling is one way, but not the only way, to provide information to schools and child care facilities about lead in their buildings. This sampling by community water systems serves as an initial sample set for lead risks within schools and child care facilities and, coupled with the public education materials, are intended to encourage schools and child care facilities to take additional actions, including comprehensive sampling. See 89 FR 86418, 86540.

The public education and sampling in schools and child care facilities requirements in this proposed rulemaking are consistent with the 2024 Federal LCRI.

Strengthening protections to reduce lead exposure

Public education is one of the components of the 1991 Federal LCR. Public education was not intended to substitute for the other components of the 1991 Federal LCR, but rather to supplement and support them. Public education, particularly when combined with other actions and policies to reduce public health hazards, is an effective way to improve public health by influencing people's knowledge, beliefs and behaviors. See 89 FR 86418, 86519, 86520. The 2024 Federal LCRI builds on the public education requirements of the 1991 Federal LCR by updating public education content and strengthening the delivery requirements.

Similar to existing provisions for public notice and Consumer Confidence Reports, the 2024 Federal LCRI requires all public education materials to either include information in the appropriate languages regarding the importance of the materials along with information where persons served by the public water system may obtain a translated copy of the materials or may request assistance in the appropriate languages, or the materials must be translated into the appropriate languages.

In addition to the public education required whenever the lead 90th percentile compliance value exceeds the action level, the 2024 Federal LCRI also requires public water systems to conduct public education independent of lead levels in a variety of contexts (for example, individual notices of tap sample results, notifications to people served by known or potential lead service lines, outreach to encourage customer participation in full service line replacement and notifications of service line disturbances) because public education not associated with the action level can produce benefits by prompting consumers to take actions that reduce their exposure. See 89 FR 86418, 86520, 86521.

Under the 1991 Federal LCR, public water systems must provide information regarding tap monitoring results to consumers within 30 days of learning of the results. The 2024 Federal LCRI requires public water systems to provide notification to consumers of their individual lead or copper tap sampling results within 3 business days of learning of the results; this includes providing notification of results to consumers who requested their tap be sampled for lead. If copper samples are collected at the same time as lead, systems can combine the lead and copper results and required information into a single notice. The notice must include: the results of the lead or copper monitoring, or both, for the tap that was sampled; an explanation of the health effects of lead or copper, or both; a list of steps consumers can take to reduce exposure to lead or copper, or both, in drinking water; and contact information for the public water system.

The 2024 Federal LCRI requires public water systems to notify customers and consumers if they are served by a lead, GRR or lead status unknown service line. These notices must include information about accessing the service line replacement plan and steps consumers can take to reduce exposure to lead in drinking water. Public water systems must also offer to sample the tap water of any consumer served by a lead, GRR or lead status unknown service line who requests it.

A public water system that causes a disturbance to a lead or GRR service line, including actions that result in a shut off or bypass of water to an individual service line or a group of service lines, is required to provide notice to the affected customers. This notification may also include other actions that cause a disturbance to a service line or group of service lines, such as undergoing physical action or vibration that could result in pipe scale dislodging and associated release of particulate lead (for example, disturbances following inventorying efforts). For these disturbances, public water systems are required to provide persons at the service connection with public education materials and instructions for a flushing procedure to remove particulate lead. For some disturbances (replacement of an inline water meter, water meter setter, or connector or replacement of a water main whereby the service line pipe is physically cut), public water systems are required to provide persons at the service connection with public education materials and pitcher filters or point-of-use devices certified by an American National Standards Institute (ANSI) accredited certifier to reduce lead, along with filter instructions and filter replacement cartridges.

Because actions such as installing or reoptimizing optimal CCT and lead service line replacement may take years to implement, public water systems may continue to exceed the lead action level during that time. Therefore, the 2024 Federal LCRI includes requirements for public water systems with recurring lead action level exceedances (defined as three action level exceedances within a rolling 5-year period) to conduct additional outreach to consumers and provide pitcher filters or point-of-use devices certified by an ANSI-accredited certifier to reduce lead in drinking water with instructions and replacement filters to all consumers. These additional actions can reduce consumer exposure to higher levels of lead in drinking water while the public water system works to reduce systemwide lead levels through replacement of lead service lines and installing or reoptimizing optimal CCT, which can take years to complete. See 89 FR 86418, 86533.

In addition to public education, outreach and mitigation provisions, the 2024 Federal LCRI has another protection to reduce lead exposure—the Distribution System and Site Assessment. The Distribution System and Site Assessment is intended to potentially identify the cause of, and actions to address, localized elevated lead levels in drinking water. Public water systems may not exceed the lead action level but can still have up to 10% of tap samples above the lead action level, so it is important to understand whether the elevated lead level is a localized problem or is due to water quality issues in the distribution system. Identifying sources of lead in drinking water is a critical component to mitigating lead and improving public health protection. See 89 FR 86418, 86516, 86517. The Distribution System and Site Assessment includes WQP sampling and lead tap sampling at or near the location that exceeded the lead action level. The public water system must evaluate the results of this sampling to identify the cause of the elevated sample

result (if known), determine if either localized or centralized adjustment of the optimal CCT is needed, or determine whether other distribution system actions, such as flushing to reduce water age, are necessary to reduce lead levels. Public water systems must also submit information to the state recommending actions or adjustments of optimal CCT after evaluating the Distribution System and Site Assessment results.

The public education, outreach, mitigation and Distribution System and Site Assessment requirements in this proposed rulemaking are consistent with the 2024 Federal LCRI.

Advisory committee review

The draft proposed rulemaking was presented to the Public Water System Technical Assistance Center (PWS-TAC) Board on February 12, 2026. The PWS-TAC Board includes representatives from a broad array of drinking water professional associations, the Office of Consumer Advocate and stakeholder organizations, including public interest and environmental organizations, and building and land development interests.

The PWS-TAC Board recommended the following based on their review of the draft proposed annex:

- “The definition of Connector should be edited to add the following text as the 2nd sentence: ‘The connector may be made from a variety of materials.’ The revised definition would be ‘Connector—Also referred to as a gooseneck or pigtail, is a short segment of piping, not exceeding 3 feet, which can be bent and used for connections between service piping. The connector may be made from a variety of materials. Lead connectors exceeding 3 feet are considered to be part of a lead service line. Lead connectors may result in a galvanized service line needing replacement if the lead connector is upstream of the galvanized line.’”

The Department agrees with the recommendation and revised the definition of “connector” to include the recommended language.

- “[The Department] should work with EPA to ensure clarity and strong language in technical guidance on how the 90th percentile value is to be calculated when more than the minimum number of samples are received from sample sites of lower Tiers, and are analyzed and reported. The guidance should include examples of what sample results are to be ranked and included in the calculation, especially when results from Tier 3, 4 or 5 sites that are not included in the calculation are higher than results from Tier 1 or 2 sites.”

The Department agrees with the recommendations for additional guidance, including examples for the 90th percentile calculation and will develop this guidance based on the guidance that is being developed by the EPA.

- “Subparagraph (iv) in § 109.1102(b)(1.1), which reads ‘Large water systems with CCT that exceed the lead PQL but do not exceed the lead or copper action level may be required by the Department to complete the reoptimized [optimal CCT] steps in

paragraph (2.1).’ should be deleted because [the Department] has the authority under subparagraph (ii) to require water systems to reoptimize [optimal CCT]. [The Department] should also create written [standard operating procedures] and training for staff to ensure consistent implementation in determining when systems should be required to reoptimize [optimal CCT].”

The Department agrees with the recommendation and deleted draft § 109.1102(b)(1.1)(iv) (relating to action levels and treatment technique requirements) in the proposed rulemaking. The Department also agrees with the recommendation for additional guidance.

- “In the schedule for [optimal CCT] outlined in paragraphs § 109.1102(b)(2.1) and § 109.1102(b)(2.2), DEP should combine Step 2—Complete a CCT feasibility study for reoptimization with Step 3—Obtain a permit for construction or modification of [optimal CCT] to show [the Department] is consistent with the federal timeline of 36 months.”

The Department added language to § 109.1102(b)(2.1) and (2.2) to show it is consistent with the Federal timelines of 24 or 36 months, as applicable.

Although the optimal CCT Steps 2 and 3 are not combined, Step 3 was revised to state the deadline by which a water system needs to obtain a construction permit for optimal CCT, which is either 24 months or 36 months from the end of the monitoring period in which the action level was exceeded. Water systems that do not need to conduct a pipe rig loop study must obtain a construction permit for optimal CCT within 24 months. Water systems that need to conduct a pipe rig loop study must obtain a construction permit for optimal CCT within 36 months. These deadlines match the 2024 Federal LCRI. The Department agrees with the PWS-TAC Board’s recommendations for additional guidance from the EPA, including examples for the 90th percentile calculation and written standard operating procedures for staff.

- “The [water quality parameter] monitoring language in § 109.1103(b.1) that states ‘from taps used to provide water for human consumption’ should be changed to match the federal language.”

The Department agrees with the recommendation and revised § 109.1103(b.1) (relating to monitoring requirements) as suggested.

- “[The Department] and 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 [public water systems] in meeting the LCRI requirements for notification and sampling in schools and child care facilities.”

The Department will discuss this recommendation with EPA Region 3 and may follow up with the Department of Education and the Department of Human Services, as appropriate.

E. Summary of Proposed Rulemaking

§ 109.1. Definitions

The definitions in this section are consistent with the Federal definitions in 40 CFR 141.2.

The definition of “90th percentile” is proposed to be added. This calculated value is compared to the lead and copper action levels to determine if an action level was exceeded.

The definition of “Administrator” is proposed to be amended for clarity.

Acronyms for “CCT—corrosion control treatment” and “WQP—water quality parameter” are proposed to be added for clarity.

Definitions of “child care facility” and “school” are proposed to be added to identify which schools and child care facilities are subject to monitoring requirements.

The definition of “connector” is proposed to be added because the 2024 Federal LCRI requires connectors to be included in the baseline service line inventory and the service line replacement plan.

The definition of “Distribution System and Site Assessment” is proposed to be added because the 2024 Federal LCRI added this protection to reduce lead exposure by requiring tap sampling at a site that yields a lead result that exceeds 0.010 mg/L, the lead action level.

Definitions of “first-liter sample” and “fifth-liter sample” are proposed to be added to distinguish between first-liter and fifth-liter tap samples collected for lead as required in the tap sampling protocol. The proposed definition of “first-liter sample” would replace the existing definition of “first-draw sample” for the lead and copper tap sampling protocol. The term “first-draw sample” is described in proposed § 109.1103(l)(5)(i)(F) and is only used in reference to sampling in schools and child-care facilities.

Several definitions relating to service lines are proposed to be added or amended for consistency with Federal definitions in 40 CFR 141.2. The definition of “service line” is proposed to be added to distinguish the difference between a service line and connector and to meet the Federal requirements for the baseline inventory plus the service line replacement plan. The definition of “lead service line” is proposed to be amended and definitions of “lead status unknown service line” and “nonlead service line” are proposed to be added for consistency with Federal definitions in 40 CFR 141.2. As previously explained, the proposed definition of “GRR service line—galvanized requiring replacement service line” is more stringent than the Federal definition. These definitions identify each category of service line and distinguish how the material composition of the service line determines the categorization of the service line.

The definition of “OCCT—optimal corrosion control treatment” is proposed to be added. The term is used to distinguish between systems who maintain treatment that do not exceed the action

level or quantitation limit and systems who exceed the action level or quantitation limit and need to adjust their treatment.

The definition of “OWQP—optimal water quality parameters” is proposed to be added because the values for each WQP are used to ensure treatment is operating properly after optimal CCT is installed.

Nonsubstantive edits are proposed for the definitions of “POE device—point-of-entry device” and “Performance Evaluation Sample.”

The definition of “POU device—point of use device” is proposed to be added because these devices can be used as treatment options to reduce or remove contaminants in drinking water.

The definition of “PQL—practical quantitation limit” is proposed to be added because practical quantitation limits are used for determining monitoring frequencies and compliance with treatment technique requirements.

The definition of “partial service line replacement” is proposed to be added to clarify between partial and full service line replacement. There are different timing requirements for public outreach and mitigation measures for partial service line replacements.

The definition of “pitcher filter” is proposed to be added because it is a device used to reduce lead in drinking water after service line disturbances or replacements.

The definition of “system with CCT” is proposed to be added to identify a public water system that has or purchases all of its water from a system that has lead and copper treatment installed and approved by the Department.

The definition of “tap monitoring period” is proposed to be added to identify the time period during which each system must complete tap sampling for lead and copper analysis.

The definition of “tap sampling period” is proposed to be added to identify the time period within the monitoring period that each system must collect tap samples for lead and copper analysis.

The definition of “tap sampling protocol” is proposed to be added. This protocol identifies the tap sampling procedure for collecting lead and copper samples for analysis as specified in § 109.1103(a)(4).

§ 109.410. Tier 3 public notice—categories, timing and delivery of notice

Subsection (a)(2) is proposed to be amended to clarify that violations of the 2024 Federal LCRI reporting requirements are Tier 3 violations.

§ 109.602. Acceptable design

Subsection (e) is proposed to be amended to allow point-of-use devices as an acceptable design for the alternate compliance flexibility option under Subchapter K.

§ 109.718. Comprehensive monitoring plan

Subsection (b) is proposed to be amended to clarify that the disinfection sample site plan is part of the comprehensive monitoring plan and to update the cross-reference for the lead and copper sample site plan.

§ 109.1101. Scope

Subsection (a) is proposed to be amended to summarize the requirements in Subchapter K. The amendment also clarifies that failure to meet these requirements is a violation of the National Primary Drinking Water Regulations consistent with 40 CFR 141.80(b) (relating to general requirements and action level).

Subsection (b) is proposed to be amended to update the population served for medium and small water systems as reflected in 40 CFR 141.2.

Subsection (c) is proposed to be amended to clarify that a community water system or nontransient noncommunity water system that is a consecutive water system receiving finished water from interconnection with another public water system is considered source water and is subject to all of the requirements in Subchapter K.

§ 109.1102. Action levels and treatment technique requirements

The heading of this section is proposed to be amended to “lead and copper action levels, 90th percentile calculation and treatment technique requirements.”

The proposed amendments to subsection (a) are consistent with 40 CFR 141.80, unless otherwise noted. The proposed amendments to subsection (b) are consistent with 40 CFR 141.81 (relating to applicability of corrosion control treatment steps to small, medium, and large water systems), unless otherwise noted.

Subsection (a) is proposed to be amended to describe the lead and copper action levels, an exceedance of an action level, the lead and copper practical quantitation limit and an exceedance of a practical quantitation limit.

Proposed subsection (a.1) describes the 90th percentile calculation, what samples are included in the calculation and how the 90th percentile is calculated using each of the tap sampling tiers.

Subsection (b) is proposed to be amended to include the updated treatment technique requirements and describe when a system must complete the CCT or optimal CCT steps.

Paragraphs (1), (2) and (3) are proposed to be reserved and replaced with updated CCT compliance steps in proposed paragraphs (1.1), (1.2), (1.3), (2.1), (2.2) and (3.1).

Proposed subsection (b)(1.1) establishes the applicability of CCT steps to large, medium and small water systems.

Proposed subsection (b)(1.2) identifies water systems that are eligible to be deemed to have optimal CCT.

Proposed subsection (b)(1.3) describes the requirements to be deemed to have optimal CCT.

Proposed subsection (b)(2.1) establishes the CCT steps and deadlines for water systems reoptimizing optimal CCT. As previously explained, this paragraph includes interim deadlines which are more stringent than the 2024 Federal LCRI. Otherwise, these amendments reflect 40 CFR 141.81(d) and 40 CFR 141.82(b) (relating to description of corrosion control treatment requirements).

Proposed subsection (b)(2.2) establishes the CCT steps and deadlines for water systems without CCT or that are optimizing CCT. As previously explained, this paragraph includes interim deadlines which are more stringent than the 2024 Federal LCRI. Otherwise, these amendments reflect 40 CFR 141.81(e) and 141.82(b).

Proposed subsection (b)(3.1) describes the CCT steps. This amendment reflects 40 CFR 141.82(a).

Subsection (b)(4) is proposed to be amended to outline the steps required if a water system needs to install source water treatment. This amendment reflects 40 CFR 141.83 (relating to source water treatment requirements).

Subsection (b)(5) is proposed to be reserved because the updated requirements for designation of WQPs are incorporated in proposed subsection (b)(1.1), (1.2), (2.1), (2.2) and (3.1).

Proposed subsection (b)(5.1) establishes the CCT steps for small and medium water systems without CCT.

Proposed subsection (c) establishes Department notification and approval requirements for water systems with upcoming long-term changes in treatment or source. This amendment reflects 40 CFR 141.81(h) and 40 CFR 141.90(a)(4) (relating to reporting requirements).

Proposed subsection (d) establishes small water system compliance flexibility options. Small community water systems serving 3,300 or fewer persons that exceed the lead action level, but do not exceed the copper action level and that have control over and access to all plumbing and service connections served by the system, and all nontransient noncommunity water systems that exceed the lead action level, but do not exceed the copper action level and that have control and access to all plumbing in buildings served by the system may recommend one of the compliance alternatives in this subsection. If one of the compliance alternatives is denied by the Department,

the system may recommend the other compliance alternative. Systems not recommending one of these options must comply with subsection (b). These amendments reflect 40 CFR 141.93 (relating to small water system compliance flexibility).

Proposed subsection (d)(1) establishes the time frames in which small community water systems and nontransient noncommunity water systems electing to use one of the alternative compliance options must submit a recommendation to the Department. This paragraph also clarifies that these water systems must submit the recommendation on forms provided by the Department, collect WQPs and, if applicable, maintain CCT until the Department determines in writing that CCT is no longer necessary. This amendment reflects 40 CFR 141.93(a).

Proposed subsection (d)(2) establishes that if the Department does not approve an alternative compliance option, the system shall comply with the applicable CCT requirements in subsection (b)(2.1) for systems with corrosion control or subsection (b)(2.2) for systems without corrosion control. This amendment reflects 40 CFR 141.93(b).

Proposed subsection (d)(3) establishes that if the system fails to implement the approved alternative compliance option, or the Department revokes the approval, the system must follow the requirements for small community water systems and nontransient noncommunity water systems in subsection (b)(2.1) for systems with corrosion control or in subsection (b)(2.2) for systems without corrosion control. This amendment reflects 40 CFR 141.93(b).

Proposed subsection (d)(4) establishes the criteria for the point-of-use devices alternative compliance option. This amendment reflects 40 CFR 141.93(c).

Proposed subsection (d)(5) establishes the criteria for replacement of lead-bearing plumbing alternative compliance option. This amendment reflects 40 CFR 141.93(c).

Proposed subsection (e) establishes the criteria and steps for a Distribution System and Site Assessment. A water system must conduct a Distribution System and Site Assessment when an individual tap sample exceeds the lead action level and the site is included in the site sample plan. A Distribution System and Site Assessment includes additional WQP monitoring, a follow-up tap sample and a distribution system recommendation. The Department will respond to the recommendation and the water system must implement the approved recommendation. If the approved recommendation includes modifications to optimal CCT, the water system must complete the CCT steps 5—7 in subsection (b)(2.1) or (2.2). These amendments reflect 40 CFR 141.82.

§ 109.1103. Monitoring requirements

Subsection (a) is proposed to be amended to add cross-references for the lead and copper action levels and practical quantitation limits, and to clarify that the monitoring requirements for lead and copper should be at taps used for human consumption and at sites selected in the sample site plan. The proposed amendments are consistent with 40 CFR 141.86 (relating to monitoring requirements for lead and copper in tap water).

Subsection (a)(1) is proposed to be reserved because initial monitoring has been replaced by standard monitoring in proposed subsection (a)(1.1).

Proposed subsection (a)(1.1) explains the standard monitoring requirements. Standard monitoring is conducted every 6 months at a specific number of sites based on the population served. As previously explained, subsection (a)(1.1)(i)(A)(iv) includes a deadline for documentation of compliance monitoring that is more stringent than 2024 Federal LCRI.

Subsection (a)(2) is proposed to be reserved because WQP monitoring is described in proposed subsection (b.1).

Proposed subsection (a)(2.1) establishes reduced monitoring, including the criteria to qualify for reduced monitoring, the tap sampling periods for reduced monitoring, the monitoring required for the reduced annual and reduced triennial frequencies, and that the Department must approve a reduced monitoring frequency.

Subsection (a)(3) is proposed to be reserved because source water monitoring is in proposed subsection (f.1).

Proposed subsection (a)(4) explains the tap sampling protocol, including applicability and procedures for sampling sites with lead service lines and nonlead service lines.

Subsection (b) is proposed to be reserved because special lead and copper tap monitoring requirements are proposed to be updated and added to § 109.1102(b)(5.1).

Proposed subsection (b.1) establishes the monitoring requirements for WQPs, including the number of sites, site selection criteria, reduced monitoring requirements and sample collection protocol. As previously explained, this proposed subsection is more stringent than the 2024 Federal LCRI by requiring groundwater systems to monitor WQPs at all entry points, rather than allowing for more limited entry point sampling as provided by 40 CFR 141.87(b)(3)(ii). The proposed amendments in this subsection are otherwise consistent with 40 CFR 141.87.

Subsections (c), (d) and (e) are proposed to be reserved because these monitoring requirements are proposed to be updated and added to subsections within this section.

Subsection (f) is proposed to be amended to add additional monitoring requirements. These amendments are consistent with 40 CFR 141.86 and 141.87.

Proposed subsection (f)(1) addresses lead and copper tap monitoring beyond tap sampling conducted for standard or reduced monitoring and whether and how these results may be included in the 90th percentile calculation.

Proposed subsection (f)(2) addresses additional WQP monitoring.

Proposed subsection (f)(3) addresses monitoring conducted as part of a Distribution System and Site Assessment.

Proposed subsection (f.1) establishes the requirements for lead and copper entry point monitoring, including the monitoring required for source water treatment and reduced monitoring. As previously explained, this subsection is more stringent than the 2024 Federal LCRI by requiring weekly entry point monitoring and by requiring source water monitoring after each action level exceedance.

Subsection (g) is proposed to be reserved because sample site plans are detailed in proposed § 109.1109 (relating to service line and connector inventory, service line replacement plan and sample site plan).

Subsection (h) is proposed to be reserved because sample collection methods are proposed to be updated and added to subsections within this section.

Subsection (i) is proposed to be amended to clarify analysis requirements. This amendment reflects 40 CFR 141.89(a) (relating to analytical methods).

Subsection (j) is proposed to be amended to correct a cross-reference, update and clarify the requirements for the Department to invalidate a sample result and update the requirements for replacement samples. Water systems are to report the results of all samples to the Department and submit all supporting documentation for samples the system believes should be invalidated. This amendment reflects 40 CFR 141.86.

Subsection (k) is proposed to be amended to clarify the materials and monitoring criteria to qualify for a monitoring waiver, the required monitoring if a waiver is approved, the criteria required for continued eligibility to maintain an existing waiver and the conditions that would result in a waiver being revoked. This proposed amendment reflects 40 CFR 141.86.

Proposed subsection (l) establishes the requirements for outreach and monitoring for lead in schools and child care facilities served by a community water system. Each community water system that serves schools or child care facilities is required to compile a list of all schools and child care facilities served by the system, with some limited exceptions. Each community water system is required to provide information about lead in drinking water to each school and child care facility served by the system and to conduct sampling at elementary schools and child care facilities served by the system within 5 years (at a rate of sampling 20% of these facilities each year). Sampling must be conducted at a minimum number of sites using specific sample collection methods. The community water system must also retain documentation for those schools and child care facilities that do not respond or that decline to be sampled. The community water system must also provide the sample results to each school and child care facility with additional information about remediation options consistent with current EPA guidance. These sample results must also be provided to the Department, the Department of Health and local health departments. This subsection also identifies criteria for which a waiver may be granted to a community water system exempting the water system from the sampling requirements. These proposed amendments reflect 40 CFR 141.92 (relating to monitoring for lead in schools and child care facilities).

§ 109.1104. Public education and notification

The heading of this section is proposed to be amended to “public education and notification, supplemental monitoring and mitigation requirements.”

The proposed amendments to this section are consistent with 40 CFR 141.85 (relating to public education and supplemental monitoring and mitigation requirements), unless otherwise noted.

Subsection (a) is proposed to be amended to clarify that the public education program is specifically for lead, and that it applies to any water system that exceeds the lead action level.

Subsection (a)(1) is proposed to be amended for clarity and consistency with Federal requirements specifically for inclusion of information for non-English-speaking populations in written public education materials. In addition, this paragraph clarifies the process and deadlines that water systems must follow when obtaining Department approval of the written public education materials content prior to delivery.

Subsection (a)(2)(i) is proposed to be amended to clarify the public education materials delivery requirements for community water systems. Subsection (a)(2)(ii) is proposed to be amended to clarify the public education materials delivery requirements for nontransient noncommunity water systems. The proposed amendments detail who must receive the written public education materials, the frequency at which the public education must be delivered, a list of educational outreach activities water systems must complete, and the deadline for when water systems must deliver or post the public education materials and complete the outreach activities.

Subsection (a)(2)(iii) is proposed to be amended to clarify when and how systems may request extensions to complete the public education delivery requirements, that extensions may be granted on a case-by-case basis and the deadline by which systems must complete the public education delivery requirements.

Subsection (a)(3) is proposed to be amended for clarity.

Subsection (a)(4) is proposed to be reserved. This paragraph requires systems with action level exceedances to provide information about laboratories certified by the Department to analyze lead and copper in drinking water to any customer who requested that information. This existing provision is no longer needed with the customer-requested sampling and result notification provisions in proposed subsection (a)(4.1).

Proposed subsection (a)(4.1) explains when systems are required to collect customer-requested samples and provide notification to those customers for results of the samples. This is consistent with 40 CFR 141.85(c) and 141.86(b).

Subsection (b)(1) is proposed to be amended to clarify that water systems are required to include copper tap monitoring results, the health effects language for copper, the steps to reduce exposure to copper, and the maximum contaminant level goal and the action level for copper in

the consumer tap notices. Proposed amendments to this subsection also require systems to add information to the consumer tap notices on the possible sources of lead in drinking water.

Subsection (b)(2) is proposed to be amended to reduce the time frame allowed for water systems to provide consumer tap notices from 30 days to as soon as practicable but no later than 3 business days of the system learning of the results.

Subsection (b)(3) is proposed to be amended to allow additional delivery methods for consumer tap notices and allow the notices of lead and copper results to be combined into one notice. The proposed amendments also require nontransient noncommunity water systems that serve persons 17 years of age or under to provide consumer tap notices directly to the parent or guardian of each of those persons.

Proposed subsection (b)(4) describes requirements for reporting to the Department relative to delivery of consumer tap notices, including timing and what is required to be submitted to the Department. These proposed amendments are consistent with 40 CFR 141.90(f)(3).

Subsection (c) is proposed to be amended to add the requirement for water systems to provide public notification in accordance with Subchapter D (relating to public notification) when the water system exceeds the action level for lead, or when the water system fails to comply with the reporting requirements in § 109.1107 (relating to system management responsibilities).

Proposed subsection (d) explains the requirements for water systems to notify persons served by a service line known to contain lead or potentially containing lead. This includes the timing, content and delivery requirements of the notifications. This subsection also provides the requirements for reporting to the Department related to these notifications.

Proposed subsection (e) explains the notification, mitigation and reporting requirements water systems must follow when there is a disturbance to a service line known to contain lead or potentially containing lead. The reporting requirements are consistent with 40 CFR 141.90(f).

Proposed subsection (f) explains the requirement that water systems must utilize to encourage customer participation in full lead service line replacement. This includes when a system is required to complete an outreach activity, the frequency at which the activity must occur, the list of activities systems may select and the reporting requirement to demonstrate to the Department that the system conducted outreach activities in accordance with this subsection. The reporting requirement is consistent with 40 CFR 141.90(f).

Proposed subsection (g) requires community water systems to provide public education materials and information regarding Distribution System and Site Assessments to the Department of Health and local health departments, and to certify to the Department that these requirements have been met. The certification requirement is consistent with 40 CFR 141.90(f).

Proposed subsection (h) establishes additional requirements for water systems that exceed the lead action level more than once in a rolling 5-year period. These requirements include developing and implementing a plan to provide pitcher filters or point-of-use devices and 6

months of replacement cartridges to consumers, and conducting community outreach on the steps the water system is taking to address the multiple lead action level exceedances and measures consumers can take to reduce their risk. This subsection also includes reporting and certification requirements to the Department for these activities and specifies the criteria under which a water system may discontinue these activities. The reporting requirements are consistent with 40 CFR 141.90(f).

§ 109.1105. Permit requirements

Subsection (a) is proposed to be amended to add the acronym for CCT.

Subsection (b) is proposed to be amended to update the requirements for a construction permit that includes a CCT feasibility study, recommendation for WQPs for optimal CCT and any other information needed to enable the Department to consider the construction permit application.

Subsection (b)(1)—(3) is proposed to be reserved.

Subsection (c) is proposed to be amended to delete the exception for nontransient noncommunity water systems to obtain an operation permit or amended operation permit prior to operation of CCT facilities. The subsection is also proposed to be amended to require the applicable systems to request designation of WQPs and that the Department will issue an amended operation permit designating the WQPs.

§ 109.1106. Design standards

The opening paragraph is proposed to be amended to add the acronym for CCT.

Paragraph (2) is proposed to be amended to delete the exemption of systems under § 109.1105(b)(1) or (2) (relating to permit requirements).

Proposed paragraph (3) establishes the orthophosphate concentrations that water systems must use when installing or reoptimizing optimal CCT.

§ 109.1107. System management responsibilities

The proposed amendments to subsection (a) are consistent with 40 CFR 141.90.

Subsection (a) is proposed to be amended to clarify the general reporting and recordkeeping requirements in this subchapter. The service line inventory and service line replacement reporting requirements are described in § 109.1109 and § 109.1110 (relating to service line and lead connector replacement requirements).

Subsection (a)(1) is proposed to be reserved because the sample site plan reporting is described in proposed § 109.1109(c).

Subsection (a)(2) is proposed to be amended to include the reporting requirements for results of monitoring conducted in each applicable monitoring period under § 109.1103.

Proposed subsection (a)(2.1) requires the system to provide documentation for any lead and copper tap samples that the water system requests to invalidate.

Proposed subsection (a)(2.2)(i) and (ii) specifies the Department will calculate the 90th percentile values in accordance with proposed § 109.1102(a.1) and what steps the water system must take if the system does not report lead and copper tap samples as required for the Department to calculate the 90th percentile value.

Proposed subsection (a)(2.3) specifies that additional monitoring beyond the minimum required monitoring shall also be reported to the Department.

Proposed subsection (a)(2.4)(i) and (ii) specifies the reporting requirements for follow-up and WQP samples collected for the Distribution System and Site Assessment and the certification requirements related to the number of customer refusals and nonresponses the system received for follow-up samples.

Subsection (a)(3) is proposed to be reserved. The corrosion control reporting requirements are detailed in § 109.1102(b).

Subsection (a)(4) is proposed to be reserved. The public education reporting requirements are detailed in § 109.1104 (relating to public education and notification).

Proposed subsection (a)(4.1) requires a water system serving 3,300 or fewer persons applying for a monitoring waiver to provide documentation that the system meets the waiver requirement prior to the start of the applicable tap monitoring periods. When applicable, the system must provide documentation that the system is no longer free of lead-containing or copper-containing material by the specified deadlines.

Subsection (a)(5) is proposed to be reserved. The consumer tap notice reporting requirements are detailed in § 109.1104(b).

Proposed subsection (a)(5.1) describes the reporting requirements for community water systems related to sampling in schools and child care facilities. This includes reporting a list of schools and child care facilities to the Department or certifying that there are no schools or child care facilities served by November 1, 2027. Community water systems are also required to provide a certification report to the Department by January 30 for the previous calendar year's activities related to sampling in schools and child care facilities.

Subsection (a)(6) is proposed to be reserved because reporting requirements for lead service line replacements are described in § 109.1110(f).

Proposed subsection (a)(6.1) outlines the reporting and certification requirements for systems using the small water system compliance flexibility option.

Proposed subsection (a)(6.2) requires water systems to comply with the reporting requirements for service line inventories and service line or connector replacement specified in proposed §§ 109.1109 and 109.1110.

Subsection (a)(7) is proposed to be amended to clarify the recordkeeping requirements consistent with 40 CFR 141.91 (relating to recordkeeping requirements). The proposed amendments also specify the recordkeeping requirements for service line inventories, lead replacement plans and any other reports, surveys, letters, evaluations, schedules and Department determinations not otherwise specified.

Subsections (b) and (c) are proposed to be amended to add the acronym for CCT.

Subsection (d) is proposed to be reserved because lead service line replacement requirements are in proposed § 109.1110.

§ 109.1108. Fees

This section is proposed to be amended to update the cross-reference for treatment technique requirements and update the acronym for optimal CCT.

§ 109.1109. Service line and connector inventory, service line replacement plan and sample site plan

This proposed section requires systems to complete a service line and connector inventory, service line replacement plan and sample site plan, consistent with 40 CFR 141.84 (relating to service line inventory and replacement requirements) and 40 CFR 141.86(a)(1). Subsections (a) and (b) are consistent with 40 CFR 141.84 and subsection (c) is consistent with 40 CFR 141.86(a), unless otherwise noted.

Proposed subsection (a) requires water systems to complete an inventory that identifies all materials and location of each service line and all connectors within the distribution system by November 1, 2027.

Proposed subsection (a)(1) specifies the inventory must be submitted on a form acceptable to the Department. As previously explained, this paragraph is more stringent than the 2024 Federal LCRI.

Proposed subsection (a)(2) specifies the requirement to include all service lines and connectors regardless of ownership in the inventory. This paragraph clarifies what shared ownership means.

Proposed subsection (a)(3) specifies what information and documentation water systems shall use to identify service lines and connectors when completing the inventory, such as construction and plumbing codes, permits or any existing documentation that specifies materials of service lines and connectors.

Proposed subsection (a)(4) requires systems to include all identified connectors in the inventory and categorize all connectors as lead, nonlead, unknown or no connector present. When identifying nonlead connectors, systems shall use nonlead for connectors installed after January 6, 1991, or the compliance date of a local law prohibiting the use of lead, whichever is earlier. As previously explained, this paragraph is more stringent than the 2024 Federal LCRI.

Proposed subsection (a)(5) requires systems to identify service line materials and properly categorize the entire service line, including all segments, as lead, GRR, nonlead or lead status unknown in the inventory. The table in this paragraph depicts possible combinations of service line segment material types and overall service line categories.

Proposed subsection (a)(6) requires systems to include street addresses or a unique identifier for each service line and connector.

Proposed subsection (a)(7) requires systems to track all service line and connector materials and addresses as they are encountered during normal operations.

Proposed subsection (a)(8) describes the requirements systems must follow to make an inventory publicly accessible. A system that has all nonlead service lines and connectors in its inventory may use a written statement for its publicly accessible information, instead of the inventory, with the written statement describing the information the system used to determine that all service lines and connectors in the inventory are nonlead.

Proposed subsection (a)(9) describes the annual requirements systems must follow to update the inventory, including publicly accessible versions, and lists the deadline to submit these updates to the Department. This paragraph also clarifies requirements and deadlines for those systems who identified all nonlead lines that later find lead service lines in their system.

Proposed subsection (a)(10) specifies what a system shall do when a consumer or customer notifies them of an incorrect categorization of their service line and the deadlines to respond.

Proposed subsection (a)(11) requires systems to create a validation pool and complete the specified number of validations of service lines that are categorized as nonlead. These validations are inspections of randomly selected service lines to ensure the accuracy of the service line and connector inventory. The table in subparagraph (ii)(C) shows the number of validations required based on the size of the validation pool. This proposed paragraph details required validation methods, inspection procedures, deadlines and steps water systems must follow when they are unable to gain physical access to complete a validation. This proposed paragraph also includes requirements for systems who wish to request a waiver of the inventory validation pool process and inventory information systems must submit to the Department related to service line validation.

Proposed subsection (b) lists the requirement to develop a service line replacement plan by November 1, 2027, for public water systems who identified lead, GRR or lead status unknown service lines in their inventory, including requirements for plan contents, public accessibility and

updates. This proposed subsection clarifies what is required of systems who wish to use a deferred deadline for service line replacement.

Proposed subsection (c) specifies the requirements of the sample site plan for lead and copper monitoring, WQP monitoring, tap sampling protocol and the deadlines for submitting the plan to the Department.

Proposed subsection (c)(1) requires systems to use the information from the service line and connector inventory to identify a pool of lead and copper tap sampling sites based on sample tiering. This paragraph describes the tiering categories (Tier 1—5) for lead and copper tap sample locations. It requires systems to choose sampling locations from the highest priority tier site available according to their inventory and specifies that systems must exhaust all Tier 1 or 2 sites before using the next highest tier locations for monitoring. It explains when systems can consider tap monitoring locations unavailable and requires systems to submit documentation of customer refusals to the Department. This paragraph specifies what systems with fewer than five sites need to do to meet the required minimum number of samples and what systems that cannot meet the minimum stagnation period for their sample locations must do to meet the requirements consistent with 40 CFR 141.86(b)(3). This paragraph explains that any sampling location with a point-of-entry or point-of-use device is to be excluded from the sample site plan unless it is at a system using permitted point-of-entry or point-of-use devices to meet other primary and secondary drinking water standards at all service connections such as a system approved for a small system compliance alternative.

Proposed subsection (c)(2) specifies sampling locations for WQP monitoring in the distribution system and WQP monitoring at entry points. This is consistent with 40 CFR 141.87(a)(1) and (b)(1).

Proposed subsection (c)(3) requires systems to include a copy of the tap sampling protocol with the sample site plan and to submit updates to the tap sampling protocol to the Department for review.

Proposed subsection (c)(4) requires systems to submit an updated site sample plan to the Department anytime the system updates the tap sampling protocol, tap sampling locations or WQP monitoring locations. It requires systems that do not have enough Tier 1 or 2 sampling sites to provide documentation to the Department prior to the next tap sampling period and update their plans as necessary. This paragraph is consistent with 40 CFR 141.90(a)(1)(i) and (4).

§ 109.1110. Service line and lead connector replacement requirements

This proposed section explains the requirements for replacing service lines and lead connectors. It is consistent with 40 CFR 141.84, unless otherwise noted.

Proposed subsection (a) requires systems to replace all lead and GRR service lines under the control of the water system.

Proposed subsection (a)(1) describes a program year for the purposes of determining compliance with service line replacement progress.

Proposed subsection (a)(2) explains that this section does not establish the criteria for determining whether a system has access to conduct full service line replacements.

Proposed subsection (a)(3) explains that when a system has access to conduct a full service line replacement, the line is considered under the system's control and the system shall replace the service line.

Proposed subsection (a)(4) explains that when a system does not have access to conduct full service line replacement, the system is not required to replace the line but is required to submit documentation to the Department stating the reasons the system does not have access. This proposed paragraph provides the deadlines when documentation must be submitted.

Proposed subsection (a)(5) explains that if property owner consent is needed for a system to have legal access to conduct a full service line replacement, the system shall make reasonable effort to obtain property owner consent. If the property owner consent cannot be obtained after a reasonable effort is conducted, the system is not required to conduct the full service line replacement. This proposed paragraph explains what is considered reasonable effort and provides examples of acceptable methods of communication that demonstrate reasonable effort. The system must document the reasonable effort and provide it to the Department by the specified deadlines. This proposed paragraph also clarifies that water systems must offer full service line replacements and make a reasonable effort to obtain property owner consent when there is a change of ownership and provides the deadlines for these requirements.

Proposed subsection (a)(6) requires systems to begin a mandatory service line replacement program no later than November 1, 2027.

Proposed subsection (a)(7) explains to systems how to calculate the initial service line replacement pool and how to update the replacement pool based on the counts of recategorized services lines in the inventory.

Proposed subsection (a)(8) explains how systems should calculate the number of lead and GRR service lines required to be replaced in a program year.

Proposed subsection (a)(9) requires systems to meet a minimum cumulative average annual replacement rate for completing service line replacements.

Proposed subsection (a)(9)(i) requires systems to replace lead and GRR service lines at an average annual replacement rate of at least 10%, unless the Department approves a shortened or deferred replacement deadline. This subparagraph explains how systems approved for a shortened service line replacement deadline or systems with a deferred deadline must calculate the minimum cumulative average replacement rate.

Proposed subsection (a)(9)(ii) describes how systems must calculate the cumulative percentage of service lines replaced at the end of each service line replacement program year. This proposed subparagraph explains that systems may include only full service line replacements of lead or GRR service lines when counting the number of service lines replaced for the cumulative average replacement rate calculation. It explains that the entire service line is counted only once in the calculation. This subparagraph also clarifies what is counted and not counted as a full service line replacement.

Proposed subsection (a)(9)(iii) requires the annual replacement rate to be assessed annually as a cumulative average except for the first cumulative average replacement rate which is to be assessed at the end of the third program year. It explains how systems calculate the cumulative average replacement rate and that the cumulative average replacement rate must be greater than or equal to the annual replacement rate. This proposed subparagraph clarifies that a water system is not required to meet the cumulative average replacement rate if all the specified conditions are met. This subparagraph specifies for systems with a shortened replacement deadline, the first cumulative average replacement rate must be assessed at the end of the program year.

Proposed subsection (a)(10) specifies when systems may complete mandatory service line replacement under a shortened or deferred deadline.

Proposed subsection (a)(10)(i) requires a system to complete service line replacements on a shortened deadline and by a faster rate when the Department determines it is feasible based on the number of lead and GRR service lines in the system's inventory. The system will be notified by the Department of this determination in writing. This proposed subparagraph explains that the Department may determine a feasible shortened deadline at any time throughout a system's replacement program.

Proposed subsection (a)(10)(ii) clarifies that water systems that can complete all lead or GRR service line replacements in 5 years or less can defer installing or reoptimizing optimal CCT. If a system who fulfills the service line replacement requirements in this subparagraph exceeds the lead action level or lead practical quantitation limit, the system will be required to complete the steps in § 109.1102(b)(2.1) or (2.2). These requirements are consistent with 40 CFR 141.81(f).

Proposed subsection (a)(10)(iii) clarifies that a water system may defer service line replacements past the mandatory deadline to replace all lead and GRR service lines under their control no later than December 31, 2037, if the system completes replacement of all lead and GRR service lines by a deadline that corresponds to the system conducting 39 annual replacements per 1,000 connections at a cumulative average replacement rate. By the end of the second replacement program year, the Department is required to determine if the deferred deadline and associated cumulative average replacement rate the system documented in the service line replacement plan are the fastest feasible deadline and rate and either approve or set a new deadline and replacement rate for the system. In the first 2 years, the system is required to comply with the annual replacement rate identified in its initial service line replacement plan.

Proposed subsection (a)(11) specifies that if a lead or GRR service line is discovered when the system's inventory is comprised of only nonlead service lines, a water system needs to update

their replacement pool and conduct a full service line replacement of the lead or GRR service line as soon as practicable but no later than 180 days after the date the service line is discovered. If a system determines it is not practicable to conduct a full service line replacement within 180 days, the system can request from the Department an extension of the replacement deadline. The request must be within 90 days of the discovery of the affected service line.

Proposed subsection (b) requires systems to replace a lead connector under the control of the system when encountered during infrastructure work. Systems must comply with any laws, regulations or water tariff agreements, or combination thereof, that require additional connectors be replaced. Systems must follow risk mitigation measures following the replacement of a connector attached to a lead or GRR service line. Systems must update the connector material and location in their inventory after the replacement.

Proposed subsection (c) provides requirements for customer-initiated service line replacements, which are allowed if there are no laws, regulations or water tariff agreements, or combination thereof, that prevent customers from conducting partial lead or GRR service line replacements.

Proposed subsection (c)(1) requires water systems that are notified of a customer-initiated service line replacement to replace the remaining portion of the lead or GRR service line, provide notification and risk mitigation measures before the affected service line is returned to service, and notify the Department if the system cannot meet the specified deadlines to complete the replacement of the system's portion of the service line.

Proposed subsection (c)(2) requires water systems that are notified or learn of customer-initiated replacements that occurred within the previous 6 months and left in place the system-owned portion of a lead or GRR service line to replace any remaining portion of the affected service line within the required deadlines, provide notification and risk mitigation measures, and notify the Department if the system cannot meet the replacement deadlines.

Proposed subsection (c)(3) clarifies that any customer-initiated lead or GRR service line replacement that occurred more than 6 months from when the water system is notified or learns of the replacement does not require the system to complete the service line replacement of the system-owned portion in accordance with subsection (c), but that the lead or GRR service line must be identified in the inventory in accordance with § 109.1109(a) and replaced in accordance with subsection (a).

Proposed subsection (d) explains that partial service line replacements are prohibited unless the replacement is conducted as part of an emergency repair or in coordination with planned infrastructure work that impacts service lines. This proposed subsection describes the notification and mitigation requirements plus the steps water systems must take to prevent galvanic corrosion.

Proposed subsection (e) establishes the notification and mitigation requirements when systems complete full and partial service line replacements.

Proposed subsection (e)(1) requires water systems to provide written notification that informs consumers they may experience a temporary increase of lead levels in their drinking water due to the replacement, meet the content requirements of 40 CFR 141.85(a)(1)(ii)—(iv), which is incorporated by reference, and include contact information for the water system. For multifamily dwellings, the system may post the notification at a common location instead of providing individual notices.

Proposed subsection (e)(2) requires water systems to provide a written procedure for consumers to flush service lines and premise plumbing of particulate lead following the replacement of a lead or GRR service line.

Proposed subsection (e)(3) requires water systems to provide the consumer with a pitcher filter or point-of-use device that is ANSI certified to reduce lead, 6 months of replacement cartridges and instructions for use. This proposed subsection clarifies that if the affected service line serves more than one residential or nonresidential unit, the system must follow the requirements for every residential unit or nonresidential unit in the building.

Proposed subsection (e)(4) requires that, after completion of any full or partial replacement of a lead or GRR service line, water systems offer to collect follow-up tap samples for lead according to the tap sample collection protocol. The water system is also required to provide the sample results to the consumer.

Proposed subsection (e)(5) requires water systems to comply with specific time frames for providing notification and mitigation protocols for full and partial lead or GRR service line replacements.

Proposed subsection (e)(5)(i) addresses the notification and mitigation requirements and associated deadlines for water systems that perform a full replacement of a lead or GRR service line.

Proposed subsection (e)(5)(ii) requires that water systems planning to complete a partial lead or GRR service line replacement in coordination with planned infrastructure work must meet notification and mitigation requirements in accordance with specific time frames and requires water systems to make a reasonable effort to obtain property owner consent to replace the remaining portion of the service line.

Proposed subsection (e)(5)(iii) addresses the notification and mitigation requirements for water systems that perform partial replacement of a lead or GRR service line due to an emergency repair.

Proposed subsection (f) addresses reporting requirements for water systems to demonstrate compliance to the Department related to service line replacements, notification and mitigation requirements. This information is required to be provided in writing by January 30, 2029, and annually by January 30 thereafter unless an alternate time frame is specified. This is consistent with 40 CFR 141.84(i) and 141.90(e)(8).

F. Benefits, Costs and Compliance

Benefits

The EPA evaluated quantifiable and nonquantifiable benefits and costs associated with the 2024 Federal LCRI as part of its Health Risk Reduction and Cost Analysis. This evaluation is required under the Federal Safe Drinking Water Act for the EPA to determine whether the benefits of any proposed maximum contaminant level or treatment technique justify the costs of implementation. Estimated benefits, in terms of health risk reduction from the 2024 Federal LCRI, result from the activities performed by water systems, which are expected to reduce risk to the public from exposure to lead and copper in drinking water at the tap. See 89 FR 86418, 86591.

The EPA's health risk reduction and benefits assessment of the 2024 Federal LCRI requirements focuses on quantification and monetization of the estimated impact of reductions in lead exposure on four health endpoints: intelligence quotient (IQ) values and cases of attention-deficit/hyperactivity disorder in children, lower birth weights in children of women of childbearing age, and cases of cardiovascular disease premature mortality in adults. See 89 FR 86418, 86584.

The EPA quantifies and monetizes health risk reduction from lead exposure by estimating the decrease in lead exposures accruing to both children and adults from the installation and reoptimization of optimal CCT, lead service line replacement, the implementation of point-of-use filter devices and the provision of pitcher filters. Benefits are quantified by estimating and monetizing the resulting increases in IQ in children from birth through 7 years of age, reductions in incidents of low birth weight or attention-deficit/hyperactivity disorder in children and adult cardiovascular disease premature mortality. See 89 FR 86418, 86591.

The EPA estimates the quantifiable annualized benefits of the 2024 Federal LCRI Nationwide range from \$13.5 billion to \$25.1 billion (in 2022 dollars, at a 2% discount rate). See 89 FR 86418, 86592. When compared to the costs, the quantifiable annual net benefits range from \$12.025 billion to \$23.118 billion (in 2022 dollars at a 2% discount rate). See 89 FR 86418, 86594.

There are additional nonquantified lead health impacts to both children and adults that will be realized as a result of this proposed rulemaking. Nonquantified benefits are health outcomes that cannot be quantified and include avoidance of reductions in IQs, cases of attention-deficit/hyperactivity disorder in children, lower birth weights in children and cardiovascular disease cases in adults as a result of CCT and reoptimization, replacement of lead or GRR service lines, installation of point-of-use devices for small systems, and temporary use of point-of-use devices and water filters. The requirements to issue public education and to make the service line inventory and the service line replacement plan publicly available will encourage the public to reduce their exposure to lead in drinking water. See 89 FR 86418, 86420.

Additionally, persons served by systems required to install or reoptimize CCT and persons living in homes with premise plumbing containing lead will receive health benefits from reduced lead exposure that were not quantified in the EPA's analysis of the 2024 Federal LCRI. Increased use

of CCT resulting from the lower lead action level and improved tap sampling may have a beneficial secondary effect of reducing copper levels and avoiding certain negative health impacts of copper, such as acute gastrointestinal conditions and health effects associated with Wilson's disease. Other nonquantifiable benefits associated with the increased use of corrosion inhibitors resulting from the lower lead action level and improved tap sampling include extending the useful life of plumbing components and appliances (for example, water heaters), reduced plumbing maintenance costs, reduced treated water loss from the distribution system due to leaks, and reduced potential liability and damages from broken pipes in buildings. See 89 FR 86418, 86420.

The proposed amendments will affect all 2,911 community water systems and nontransient noncommunity water systems in this Commonwealth, which is 4.35% of the 66,947 of community water system and nontransient noncommunity water system across the United States. These 2,911 water systems serve approximately 11 million Pennsylvanians. Multiplying the EPA's Nationwide monetized expected benefits (\$13.5 billion to \$25.1 billion annually) by 4.35%, the annual benefits in this Commonwealth range from \$587.25 million to \$1.09 billion. As previously noted, this estimate does not account for the additional nonquantifiable benefits that are expected, so the quantified benefits of this proposed rulemaking likely underestimate the true social benefits. See 89 FR 86418, 86584.

The EPA Administrator confirms that the quantifiable and nonquantifiable benefits of the 2024 Federal LCRI justify the quantifiable and nonquantifiable costs. See 89 FR 86418, 86594.

Compliance costs

The EPA estimates that Nationally the total 2024 Federal LCRI annualized costs range from \$1.48 billion to \$1.98 billion (in 2022 dollars, at a 2% discount rate). This estimate includes costs to water systems and primacy agencies. The total costs for water systems range from \$1.45 billion to \$1.95 billion (in 2022 dollars, at a 2% discount rate). These costs account for rule implementation and administration, sampling, service line inventory, service line replacement, CCT, point-of-use program and public outreach. See 89 FR 86418, 86577, 86578. The EPA estimates that annual costs to primacy agencies range from \$25.8 million to \$27.7 million (in 2022 dollars, at a 2% discount rate). See 89 FR 86418, 86583. Costs to primacy agencies include work towards updating compliance programs for tracking 2024 Federal LCRI compliance and reporting, training staff and water systems, taking enforcement actions and reporting to the EPA. See 89 FR 86418, 86580.

The EPA also evaluated nonquantified costs, which include temporary costs associated with service line replacement including traffic congestion, increased probability of vehicular and pedestrian accidents, fire damage and negative sanitation impacts resulting from the necessity to shut off water service to buildings and residences during service line replacement. The EPA further considered nonquantifiable negative environmental impacts from the incremental phosphorus loadings to wastewater treatment plants and receiving waterbodies caused by the increased use of orthophosphate as a corrosion inhibitor. See 89 FR 86418, 86594.

There are 2,911 community water systems and nontransient noncommunity water systems in this Commonwealth, accounting for 4.35% of these systems Nationwide. Multiplying the EPA's estimated monetized expected annual cost range for water systems of \$1.45 billion to \$1.95 billion Nationwide by 4.35%, the estimated annual costs for community water systems and nontransient noncommunity water systems in this Commonwealth range from \$63.04 million to \$85 million. This results in an estimated annual cost per public water system in this Commonwealth of \$21,656 to \$29,201.

Costs for water systems in this Commonwealth that do not have lead or GRR service lines and that do not exceed an action level, and are therefore not required to install or reoptimize optimal CCT, are estimated to range from \$3,482 to \$3,973 annually. These costs include rule implementation and administration, monitoring, and public education and outreach. It is not possible to estimate how many systems may have these lower costs until after November 1, 2027, when water systems submit the updated service line inventory that identifies which systems will need to complete service line replacements and complete standard monitoring which will identify which systems will need to install or reoptimize optimal CCT.

The Commonwealth is one of 56 primacy agencies. The estimated annual costs for implementation and administration of this proposed rulemaking range from \$460,714 to \$494,643, calculated by dividing the EPA's cost estimate for primacy agencies Nationwide of \$25.8 million to \$27.7 million by 56.

In summary, annual costs to water systems in this Commonwealth are estimated to range from \$63.04 million to \$85 million, with annual benefits estimated to range from \$587.25 million to \$1.09 billion, resulting in estimated net benefits for this Commonwealth of \$523.09 million to \$1 billion. The EPA weighed the costs and benefits of the 2024 Federal LCRI, considering the monetized costs and benefits, the potential impacts of the nonquantifiable uncertainties, the nonquantifiable costs and benefits and public comments received, and determined that the quantified and nonquantifiable benefits of the 2024 Federal LCRI justify its quantified and nonquantifiable costs. See 89 FR 86418, 86594.

Compliance assistance plan

The Pennsylvania Infrastructure Investment Authority (PENNVEST) administers a number of programs offering financial assistance to eligible public water systems, including the Drinking Water State Revolving Fund (DWSRF), which is jointly administered by PENNVEST and the Department. PENNVEST financial assistance is most often in the form of low-interest loans, with some augmenting grant funds for hardship cases. Eligibility is based upon factors such as public health impact, compliance necessity and project/operational affordability. In 2025, PENNVEST awarded approximately \$524 million in DWSRF funding for drinking water projects.

In addition to the base DWSRF funding, PENNVEST also administers funding opportunities from the Bipartisan Infrastructure Law. The Bipartisan Infrastructure Law included funding specifically appropriated for lead service line replacement projects and associated activities directly connected to the identification and replacement of lead service lines for public water

systems needing financial assistance. In 2025, PENNVEST awarded approximately \$142 million in Bipartisan Infrastructure Law DWSRF funding for lead service line replacement projects.

The Department's Safe Drinking Water Program has established a network of regional and Central Office training staff that are responsible for identifying and addressing training needs. The target audience for training includes owners and operators of regulated public water systems, consultants, accredited laboratories and the Department's Safe Drinking Water Program staff. Training is generally accomplished through classroom and virtual sessions, as well as self-paced modules available from the Department's Earthwise Academy. The Department began training on the service line inventory requirements in 2023, and to date has conducted 33 training sessions across this Commonwealth. For the last 24 months, Department staff have also provided one-on-one compliance assistance through phone conversations or virtual meetings to approximately 200 individual water systems to ensure they complete and submit a service line inventory. Additional training is planned for the updated service line inventory requirements, the service line replacement plan and overall implementation of the 2024 Federal LCRI.

In addition to this network of training staff, the Department's Bureau of Safe Drinking Water has staff dedicated to providing training and technical outreach support services to public water system owners and operators. The Department's website also provides timely and useful information for drinking water and wastewater treatment system operators. Furthermore, the Department's Bureau of Safe Drinking Water has been partnering with industry organizations by referring public water systems for service line inventory technical assistance.

The Department also creates and maintains templates and instructions as compliance assistance tools that water systems may use to fulfill many of the reporting requirements of the 2024 Federal LCRI. These templates are intended to assist water systems with public notifications, consumer tap notices, lead public education, service line consumer notices, risk mitigation measures and sample site locations. These templates are not mandatory and are provided as a service to water systems on the Department's eLibrary at <https://greenport.pa.gov/eLibrary>. Water systems that opt to use the Department templates are assured that all required content elements for the reporting element are included.

Paperwork requirements

There are paperwork requirements for which water systems must report information on forms provided by, or acceptable to, the Department. Water systems must utilize the following forms, which are available through the Department's eLibrary at <https://greenport.pa.gov/eLibrary>:

- Service Line Inventory Form and Instructions (Document ID 3930-FM-BSDW0119). This is an existing form; revisions are not needed.
- Service Line Inventory Forms and Instructions for Water Systems with No More Than Five (5) Service Connections (Document ID 3930-FM-BSDW0042). This is an existing form; revisions are not needed.

- Public Water Supply Permit Application (Document ID 3900-PM-BSDW0002). This is an existing form; revisions are not needed.
- Public Water Supply Application—Modules 1—15 (Document ID 3900-PM-BSDW0254). These are existing forms; revisions are not needed.
- Designation of Optimal Water Quality Parameters (WQPs) Request Form (Document ID 3940-FM-BSDW0003). This is an existing form; revisions are not needed.
- Corrosion Control Treatment—Basic Feasibility Study (Document ID 394-3000-005). This is an existing form that will be revised to include the updated 2024 Federal LCRI requirements.
- The LCRI Alternative Compliance Option Request Form for eligible water systems (community water systems serving less than 3,300 persons and nontransient noncommunity water systems) that exceed the lead action level only that elect to request an alternative compliance option. This is a new form that will be required for implementation of this proposed rulemaking.

G. Pollution Prevention

The Pollution Prevention Act of 1990 (42 U.S.C. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally-friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance.

H. Sunset Review

The Board is not establishing a sunset date for this proposed rulemaking, because it is needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for their effectiveness and recommend updates to the Board as necessary.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on September 14, 2026, the Board submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC), and to the chairpersons of the Environmental and Natural Resource Protection Committee of the House of Representatives and the chairpersons of the Environmental Resources and Energy Committee of the Senate. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria in section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b) which have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Department, the General Assembly and the Governor.

J. Public Comments

Interested persons are invited to submit to the Board written comments, suggestions, support or objections regarding the proposed rulemaking. Comments, suggestions, support or objections must be received by the Board by November 24, 2026.

Comments may be submitted to the Board online, by e-mail, by mail or express mail as follows. Comments submitted by facsimile will not be accepted.

Comments may be submitted to the Board by accessing eComment at <http://www.ahs.dep.pa.gov/eComment>.

Comments may be submitted to the Board by e-mail at RegComments@pa.gov. A subject heading of the proposed rulemaking and a return name and address must be included in each transmission.

If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt.

Comments may also be submitted to the Board by mail or express mail. Written comments should be mailed to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Environmental Quality Board, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

JESSICA SHIRLEY,
Chairperson

Annex A
TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Subpart C. PROTECTION OF NATURAL RESOURCES
ARTICLE II. WATER RESOURCES
CHAPTER 109. SAFE DRINKING WATER
Subchapter A. GENERAL PROVISIONS

§ 109.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

90th percentile—The concentration of lead or copper in tap water samples that is equal to or exceeded by 10% of the samples collected during a tap monitoring period in accordance with § 109.1103 (relating to monitoring requirements), calculated in accordance with § 109.1102(a.1) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements). This level is compared to the lead and copper action levels to determine if an action level has been exceeded.

ANSI—The American National Standards Institute, Inc. of New York, New York.

Act—The Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1—721.17).

Administrator—The Administrator of the EPA **or the Administrator’s authorized representative.**

* * * * *

CCR—Consumer Confidence Report—An annual water quality report that community water systems deliver to their customers, as described in § 109.416 (relating to CCR requirements).

CCT—Corrosion control treatment.

CPE—Comprehensive performance evaluation—A thorough review and analysis of a treatment plant’s performance-based capabilities and associated administrative, operation and maintenance practices.

* * * * *

Cartridge filter—A pressure-driven separation device that removes particulate matter larger than 1 micrometer using an engineered porous filtration media. It is typically constructed as rigid or semirigid, self-supporting filter elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside.

Child care facility—A location that houses a provider of child care, day care or early learning services to children as licensed by the Department of Human Services.

Coagulation—A process using coagulant chemicals and mixing by which colloidal and suspended material are destabilized and agglomerated into settleable or filterable flocs, or both.

* * * * *

Confluent growth—Bacterial growth, with or without sheen, covering the entire membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

Connector—Also referred to as a gooseneck or pigtail, a short segment of piping, not exceeding 3 feet, which can be bent and used for connections between service piping, typically connecting the service line to the main. The connector may be made from a variety of materials. Lead connectors exceeding 3 feet are considered a lead service line.

Consecutive water system—A public water system which obtains all of its water from another public water system and resells the water to a person, provides treatment to meet a primary MCL, MRDL or treatment technique, or provides drinking water to an interstate carrier. The term does not include bottled water and bulk water systems.

* * * * *

Disinfection profile—The summary of daily *Giardia lamblia* inactivation through the treatment plant as determined through procedures and measurement methods established by this chapter.

Distribution System and Site Assessment—The requirements under Subchapter K (relating to lead and copper), under § 109.1102(e) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements), that a water system shall perform at every tap sampling site that yields a lead result above the lead action level of 0.010 mg/L.

Dual sample set—A set of two samples collected at the same time and same location, with one sample analyzed for TTHM and the other sample analyzed for HAA5. Dual sample sets are collected for the purposes of conducting an IDSE and determining compliance with the TTHM and HAA5 MCLs under Subchapter G (relating to system management responsibilities).

* * * * *

Federal regulations—The National Primary Drinking Water Regulations and the National Secondary Drinking Water Regulations.

Fifth-liter sample—For water systems collecting tap water samples in accordance with § 109.1103(a)(4), the final 1-liter sample collected in a sequence of five consecutively numbered 1-liter sample bottles.

Filter profile—A graphical representation of individual filter performance, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed.

Filtration—A process for removing particulate matter from water by passage through porous media.

Finished water—Water that is introduced into the distribution system of a public water system and is intended for distribution and consumption without further treatment, except as necessary to maintain water quality in the distribution system (for example, booster disinfection or addition of corrosion control chemicals).

[First-draw sample—A 1-liter sample of tap water collected in accordance with § 109.1103 (relating to monitoring requirements), that has been standing in plumbing pipes at least 6 hours and is collected without flushing the tap.]

First-liter sample—For water systems collecting tap water samples in accordance with § 109.1103(a)(4), the first 1-liter volume collected.

Flocculation—A process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable or filterable particles through gentle stirring by hydraulic or mechanical means.

Flowing stream—A course of running water flowing in a definite channel.

GAC—Granular Activated Carbon—A highly porous adsorbent carbon material produced by heating organic matter that can absorb various dissolved chemicals in the water.

GAC10—A granular activated carbon filter bed with an empty bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days, except that the reactivation frequency for GAC10 used as a BAT shall be 120 days.

GAC20—A granular activated carbon filter bed with an empty bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days.

GRR service line—Galvanized requiring replacement service line—A service line that is iron or steel piping that has been dipped in zinc to prevent corrosion and rusting and is currently, or ever was, downstream of any portion of a lead service line or a lead connector, or is currently downstream of a lead status unknown service line. In this definition, downstream means in the direction of flow through the service line.

GUDI—Groundwater under the direct influence of surface water—

* * * * *

Lake/reservoir—A natural or man made basin or hollow on the earth’s surface in which water collects or is stored that may or may not have a current or single direction of flow.

Lead service line—**[A service line made of lead which connects a water main to a building inlet and a lead pigtail, gooseneck or other fitting which is connected to the lead line.] A service line where any portion is made of lead, including lead-lined galvanized service lines. Lead connectors that exceed 3 feet are considered a lead service line.**

Lead status unknown service line—**A service line with pipe material that has not been demonstrated to be a lead service line, GRR service line or a nonlead service line in accordance with § 109.1109 (relating to service line and connector inventory, service line replacement plan and sample site plan).**

Level 1 assessment—An evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices and, when possible, the likely reason that the system triggered the assessment.

* * * * *

Noncommunity water system—A public water system which is not a community water system.

Nonlead service line—**A service line with pipe material that has been determined not to be lead or GRR service line through an evidence-based record, method or technique.**

Nontransient noncommunity water system—A noncommunity water system that regularly serves at least 25 of the same persons over 6 months per year.

OCCT—Optimal corrosion control treatment—**CCT that minimizes the lead and copper concentrations at users’ taps while ensuring that the treatment does not cause the water system to violate a provision of this chapter.**

OWOP—Optimal water quality parameters—**A minimum value or range of values designated by the Department for each of the key parameters for OCCT once it has been installed. The minimum value or range of values for the key parameters are set at both entry points and locations in the distribution system.**

PDWEP—Guidelines for Public Drinking Water Equipment Performance issued by NSF.

PFAS—Perfluoroalkyl and polyfluoroalkyl substances.

PFOA—Perfluorooctanoic acid—CASRN 335-67-1.

PFOS—Perfluorooctanesulfonic acid—CASRN 1763-23-1.

POE device—Point-of-entry device—**A treatment device used as an alternative to central treatment that is installed on a public water line or service connection to a house, building**

or other facility for the purpose of reducing contaminants in the water distributed throughout the house, building or facility.

POU device—Point-of-use device—A treatment device physically installed or connected to a single fixture, outlet or tap to reduce or remove contaminants in drinking water.

PQL—Practical quantitation limit—The minimum concentration of an analyte that can be measured with a high degree of confidence that the analyte is present at or above that concentration.

Partial service line replacement—Replacement of any portion of a lead or GRR service line that leaves in service any length of that line upon completion of the work.

Performance [evaluation sample] **Evaluation Sample**—A reference sample provided to a laboratory for the purpose of demonstrating that the laboratory can successfully analyze the sample within the limits of performance specified by the Department. The true value of the concentration of the reference material is unknown to the laboratory at the time of the analysis.

Person—An individual, partnership, association, company, corporation, municipality, municipal authority, political subdivision, or an agency of Federal or State government. The term includes the officers, employees and agents of a partnership, association, company, corporation, municipality, municipal authority, political subdivision, or an agency of Federal or State government.

Pitcher filter—A nonplumbed water filtration device which consists of a gravity fed water filtration cartridge and a filtered drinking water reservoir that is certified by an ANSI-accredited certifier to reduce lead in drinking water.

Plant intake—The works or structures at the head of a conduit through which water is diverted from a source (for example, a river or lake) into the treatment plant.

[Point-of-entry (POE) device—A treatment device used as an alternative to central treatment that is installed on a public water line or service connection to a house, building or other facility for the purpose of reducing contaminants in the water distributed throughout the house, building or facility.]

Presedimentation—A preliminary treatment process used to remove gravel, sand and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant.

* * * * *

Sanitary survey—An onsite review and evaluation of a public water system's source, facilities and equipment and the operation and maintenance procedures used by a public water supplier for producing and distributing safe drinking water.

School—Any building associated with a public, private, nonpublic or charter institution that primarily provides teaching and learning for elementary or secondary students and is categorized as one of the following:

(i) An elementary school, which is a school with students in any combination of grades (including preschool) up to and including grade 8.

(ii) A secondary school, which is a school with students in no less than grade 9 and not greater than grade 12.

Seasonal system—A noncommunity water system that is not operated as a public water system on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

Sedimentation—A process for the removal of solids before filtration by gravity or separation.

Service line—A pipe which connects the water main, or other conduit for distributing water to consumers, to the building inlet. When there is not a building, the service line connects the water main, or other conduit for distributing water to consumers, to the outlet. Service lines include the following types:

(i) Lead service line.

(ii) GRR service line.

(iii) Lead status unknown service line.

(iv) Nonlead service line.

Significant deficiency—A defect in design, operation or maintenance, or a failure or malfunction of the sources, treatment, storage or distribution system that the Department determines to be causing, or has the potential for causing, the introduction of contamination into the water delivered to consumers.

* * * * *

System—

(i) A group of facilities used to provide water for human consumption including facilities used for collection, treatment, storage and distribution. The facilities shall constitute a system if they are adjacent or geographically proximate to each other and meet at least one of the following criteria:

(A) The facilities provide water to the same establishment which is a business or commercial enterprise or an arrangement of residential or nonresidential structures

having a common purpose and includes mobile home parks, multi-unit housing complexes, phased subdivisions, campgrounds and motels.

(B) The facilities are owned, managed or operated by the same person.

(C) The facilities have been regulated as a single public water system under the Federal act or the act.

(ii) This definition may not be interpreted to require two or more currently-regulated public water systems to become one system.

System with CCT—A public water system that has or purchases all of its water from a system that has either of the following:

(i) OCCT approved by the Department.

(ii) Any pH adjustment, alkalinity adjustment, corrosion inhibitor addition or any combination thereof resulting from other water quality adjustments as part of its treatment train infrastructure.

TOC—Total organic carbon—The total organic carbon in mg/L measured using heat, oxygen, ultraviolet irradiation, chemical oxidants or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to two significant figures.

TTHM—Total trihalomethanes—The sum of the concentrations in milligrams per liter of the trihalomethane compounds (trichloromethane, bromodichloromethane, dibromochloromethane and tribromomethane), rounded to two significant figures after addition.

Tap monitoring period—The time period during which each water system must conduct tap sampling for lead and copper analysis. The applicable tap monitoring period is determined by lead and copper concentrations in tap samples. The length of the tap monitoring period can range from 6 months to 9 years.

Tap sampling period—The time period, within a tap monitoring period, during which the water system is required to collect samples for lead and copper analysis.

Tap sampling protocol—The method for collecting tap samples for lead and copper analysis, as specified in § 109.1103(a)(4).

Thickener supernatant—A stream containing the decant from a clarifier, sedimentation basin, or other unit used to treat water, solids or semi-solids from the primary treatment process.

* * * * *

Vended water system—A public water system which provides water for bottling through the use of one or more water vending machines.

WOP—Water quality parameter.

Waterborne disease outbreak—An illness of the same etiology experienced by two or more persons and attributed to pathogenic organisms in which the public water system is implicated as the source of illness by the Department of Health.

* * * * *

Subchapter D. PUBLIC NOTIFICATION

§ 109.410. Tier 3 public notice—categories, timing and delivery of notice.

(a) *General violation categories and other situations requiring a Tier 3 public notice.* A public water supplier shall provide Tier 3 public notice for the following circumstances:

(1) Monitoring violations under Subchapter C, K, L or M, except when a Tier 1 notice is required under § 109.408 (relating to Tier 1 public notice—categories, timing and delivery of notice) or when the Department determines that a Tier 2 notice is required.

(2) Reporting and record maintenance violations under [§ 109.701(h) (relating to reporting and recordkeeping)] **§§ 109.701(h) and 109.1107 (relating to reporting and recordkeeping; and system management responsibilities).**

* * * * *

Subchapter F. DESIGN AND CONSTRUCTION STANDARDS

§ 109.602. Acceptable design.

* * * * *

(e) [Point-of-use] **POU** devices which are treatment devices applied to a single tap are not an acceptable treatment method for complying with an MCL, MRDL or treatment technique requirement, **except as specified in § 109.1102(d) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements).** **POU devices may be used for a temporary period to avoid unreasonable risk to health if approved in writing by the Department.**

* * * * *

Subchapter G. SYSTEM MANAGEMENT RESPONSIBILITIES

§ 109.718. Comprehensive monitoring plan.

* * * * *

(b) The plan must include the sample siting plans and monitoring plans required under other sections of this chapter, including the total coliform sample siting plan required under § 109.701(a)(5) (relating to reporting and recordkeeping), the disinfection requirements rule sample siting plan required under § 109.701(a)(8), the monitoring plan for disinfectants, DBPs and DBP precursors required under § 109.701(g), the lead and copper sample site location plan required under [§ 109.1107(a)(1) (relating to system management responsibilities)] § 109.1109(c) (relating to service line and connector inventory, service line replacement plan and sample site plan) and the source water sampling plan required under § 109.1202(h) (relating to monitoring requirements).

* * * * *

Subchapter K. LEAD AND COPPER

§ 109.1101. Scope.

(a) [This subchapter establishes treatment technique requirements that include requirements for corrosion control treatment, lead service line replacement and public education. These requirements are triggered, in some cases, by samples collected at consumers' taps which exceed a lead or copper action level.] This subchapter establishes requirements to reduce lead and copper, including treatment techniques to control corrosion, treatment of source water, replacement of service lines and monitoring. This subchapter also provides public education to inform people about the health risks associated with exposure to lead and copper in drinking water and actions that can be taken to reduce those risks. This subchapter includes requirements to support the treatment technique including development of a service line inventory and service line replacement plan, tap sampling and monitoring for lead in schools and child care facilities. Failure to comply with the requirements of this subchapter, including requirements established by the Department, is a violation of the National Primary Drinking Water Regulations and this chapter.

(b) This subchapter applies to community water systems and nontransient noncommunity water systems. For purposes of this subchapter, the systems are classified as either large, medium or small, based on the population served by the system. A large water system serves more than 50,000 persons. A medium water system serves more than ~~[3,300]~~ 10,000 and fewer than or equal to 50,000 persons. A small water system serves ~~[3,300]~~ 10,000 or fewer persons.

(c) A community or nontransient noncommunity water system which is a consecutive water system shall comply with this subchapter regardless of the compliance status of any public water system from which finished water is obtained. Each interconnection with a public water system

from which finished water is obtained is considered source water for the receiving public water system and is subject to the **[monitoring, corrosion control treatment and source water treatment]** requirements under this subchapter.

§ 109.1102. **[Action levels] Lead and copper action levels, 90th percentile calculation** and treatment technique requirements.

(a) *[Action levels for lead and copper]* Lead action level, copper action level, lead PQL and copper PQL.

(1) [The lead action level is 0.015 mg/L.] The lead or copper action level means the concentration of lead or copper in water which determines requirements in this subchapter. The action levels for lead and copper are as follows:

(i) The lead action level is 0.010 mg/L.

(ii) The copper action level is 1.3 mg/L.

(iii) An action level is exceeded when the 90th percentile concentration of lead or copper is greater than the action level.

(2) [The copper action level is 1.3 mg/L.] The PQLs for lead and copper are as follows:

(i) The lead PQL is 0.005 mg/L.

(ii) The copper PQL is 0.65 mg/L.

(iii) A PQL is exceeded when the 90th percentile concentration of lead or copper is greater than the PQL.

(3) [An action level is exceeded when the concentration of a contaminant in more than 10% of tap water samples collected during a monitoring period conducted in accordance with § 109.1103 (relating to monitoring requirements) is greater than the action level] {Reserved}.

(4) [The 90th percentile lead and copper levels shall be computed as follows:

(i) The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(ii) The number of samples taken during the monitoring period shall be multiplied by 0.9.

(iii) The contaminant concentration in the numbered sample yielded by the calculation in subparagraph (ii) is the 90th percentile contaminant level.

(iv) For water systems that collect five samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(v) Interpolation shall be used to compute the 90th percentile when the numbered sample indicated in subparagraph (iii) is not a whole number] {Reserved}.

(a.1) 90th percentile calculation. A separate 90th percentile value shall be calculated for lead and copper. The 90th percentile for lead and copper shall be determined based on tap water samples collected in accordance with the tap sampling monitoring requirements and tested using the analytical methods specified in § 109.1103 (relating to monitoring requirements).

(1) The 90th percentile lead and copper concentrations shall be calculated as follows for systems that have sites identified only as Tier 3, 4 or 5 in the sample site location plan required under § 109.1109(c) (relating to service line and connector inventory, service line replacement plan and sample site plan):

(i) Determine the minimum number of sites required for the appropriate monitoring schedule in § 109.1103.

(ii) Water systems shall include in the 90th percentile calculation customer-requested samples that meet the conditions specified in § 109.1103(f)(1)(i).

(iii) The results of lead or copper samples taken in accordance with § 109.1103, including the results of any sampling conducted in addition to the minimum number of samples determined in subparagraph (i) and samples specified in subparagraph (ii), shall be placed in order from lowest concentration to highest concentration.

(iv) Each sample result to be included in the calculation shall be assigned a number, ascending by single integers, beginning with the number 1 for the sample with the lowest concentration being used. The number assigned to the sample with the highest concentration must be equal to the total number of samples taken during a tap sampling period plus the number of customer-requested samples that meet the requirements of subparagraph (ii).

(v) The number of samples identified in subparagraph (iv) shall be multiplied by 0.9.

(vi) The contaminant concentration in the numbered sample equal to the number yielded by the calculation in subparagraph (v) is the 90th percentile concentration.

(vii) For water systems that collect five samples per tap sampling period, the 90th percentile concentration is the average of the highest and second highest concentrations.

(viii) Interpolation shall be used to compute the 90th percentile when the numbered sample indicated in subparagraph (vi) is not a whole number.

(2) The 90th percentile lead and copper concentrations shall be computed as follows for systems with sufficient Tier 1 or 2 sites to meet the minimum number of sites listed for the appropriate monitoring schedule in § 109.1103:

(i) Determine the minimum number of sites required for the appropriate monitoring schedule in § 109.1103.

(ii) Water systems shall include in the 90th percentile calculation customer-requested samples that meet the conditions specified in § 109.1103(f)(1)(i). To determine which sample results to use under subparagraph (iv) consider all first-liter and fifth-liter samples taken from each Tier 1 and 2 site and use the higher result of the first-liter or fifth-liter sample in subparagraph (iv).

(iii) The results of the higher first-liter and fifth-liter lead (or first-liter lead sample if tiering is based on premise plumbing) or first-liter copper samples taken in accordance with § 109.1103, including the results of any sampling conducted in addition to the minimum number of samples determined in subparagraph (i) and samples specified in subparagraph (ii), shall be placed in order from lowest concentration to highest concentration. Sample results from any Tier 3, 4 and 5 sites may not be included in this calculation.

(iv) Each sample result to be used in the calculation shall be assigned a number, ascending by single integers, beginning with the number 1 for the sample with the lowest contaminant level being used. The number assigned to the sample with the highest concentration must be equal to the total number of samples taken during a tap sampling period plus the number of customer-requested samples that meet the requirements of subparagraph (ii).

(v) The number of samples identified in subparagraph (iv) shall be multiplied by 0.9.

(vi) The contaminant concentration in the numbered sample equal to the number yielded by the calculation in subparagraph (v) is the 90th percentile concentration.

(vii) For water systems that collect five samples per tap sampling period, the 90th percentile concentration is the average of the highest and second highest concentrations.

(viii) Interpolation shall be used to compute the 90th percentile when the numbered sample indicated in subparagraph (vi) is not a whole number.

(3) The 90th percentile lead and copper concentrations shall be computed as follows for systems with sites identified as Tier 1 or 2 under § 109.1109 with an insufficient number of Tier 1 or 2 sites to meet the minimum number of sites listed for the appropriate monitoring schedule in § 109.1103:

(i) Determine the minimum number of sites required for the appropriate monitoring schedule in § 109.1103. This is the number of results to be included in the calculation.

(ii) To determine which sample results to use under subparagraph (iv) consider all first-liter and fifth-liter samples taken from each Tier 1 and 2 site and use the higher result of the first-liter or fifth-liter sample in subparagraph (iv).

(iii) The results of the highest first-liter or fifth-liter lead (or first-liter lead sample if tiering is based on premise plumbing) or first-liter copper samples taken at Tier 1 or Tier 2 sites along with the first-liter results from the number of Tier 3, 4, or 5 sites as specified in § 109.1103(f)(1)(iii) needed to meet the minimum number of sites determined in subparagraph (i) shall be placed in order from lowest concentration to highest concentration.

(iv) Each sample result to be used in the calculation shall be assigned a number, ascending by single integers, beginning with the number 1 for the sample with the lowest contaminant level being used. The number assigned to the sample with the highest contaminant level must be equal to the total minimum number of sites listed for the appropriate monitoring schedule in § 109.1103. Sample results from any remaining Tier 3, 4 and 5 sites may not be included in this calculation.

(v) The number of samples identified in subparagraph (iv) shall be multiplied by 0.9.

(vi) The contaminant concentration in the numbered sample equal to the number yielded by the calculation in subparagraph (v) is the 90th percentile concentration.

(vii) For water systems that collect five samples per tap sampling period, the 90th percentile concentration is the average of the highest and second highest concentrations.

(viii) Interpolation shall be used to compute the 90th percentile when the numbered sample indicated in subparagraph (vi) is not a whole number.

(4) For water systems that fail to collect at least five samples, the 90th percentile concentration is the highest sample concentration. For any water system that does not collect the required minimum number of samples for the appropriate monitoring

schedule in § 109.1103, the 90th percentile concentration shall be calculated in accordance with paragraph (1)(ii)—(viii).

(b) *Treatment technique requirement for corrosion control.* A water system shall provide OCCT. Water systems shall install, optimize or reoptimize OCCT in accordance with this subsection unless the system is deemed to have OCCT or reoptimized OCCT under paragraph (1.3). This subsection sets forth when a system shall complete the CCT steps under paragraph (2.1) or (2.2) based on size, whether the system has CCT, and whether it has exceeded the lead PQL, lead action level or copper action level.

(1) *[Optimal corrosion control treatment.* A community water system or nontransient noncommunity water system shall provide optimal corrosion control treatment which minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the system to violate a primary MCL. Water systems deemed to have optimized corrosion control treatment under this subsection shall operate in compliance with Department designated water quality parameters and continue to conduct lead and copper tap monitoring. A system may achieve optimal corrosion control treatment in one of the following ways:

(i) A small or medium water system is deemed to have optimized corrosion control if the system does not exceed either the lead or copper action level during each of two consecutive 6-month monitoring periods conducted in accordance with § 109.1103. If the system thereafter exceeds an action level during a monitoring period, the system shall complete applicable compliance activities under paragraph (2). The Department may require a system repeat compliance activities previously completed when the Department determines that this is necessary for the system to achieve optimal corrosion control treatment.

(ii) A water system is deemed to have optimized corrosion control if the system demonstrates to the Department that for two consecutive 6-month monitoring periods conducted in accordance with § 109.1103 that the system does not exceed a lead or copper action level and the difference between the 90th percentile tap water lead level and the highest source water lead concentration is less than 0.005 mg/L, which is the Practical Quantitation Level for lead.

(A) To make this demonstration, the system shall collect one sample for lead from each entry point during a monitoring period prior to initiation of construction or modification of corrosion control treatment facilities. If the system thereafter exceeds an action level during a monitoring period, the system shall complete applicable compliance activities under paragraph (2). The Department may require a system to repeat compliance activities previously completed when the Department determines that this is necessary for the system to achieve optimal corrosion control treatment.

(B) A water system deemed to have optimized corrosion control in accordance with this subparagraph shall continue monitoring for lead and copper at the tap

no less frequently than once every 3-calendar years using the reduced number of sites specified in § 109.1103(e), and collecting the samples at times and locations specified in § 109.1103(e)(1)(iii).

(iii) A system is deemed to have optimized corrosion control if the system installs new corrosion control treatment facilities or modifies existing treatment in accordance with paragraph (2) and operates in compliance with water quality parameter performance requirements specified by the Department in a permit issued under § 109.1105(c) (relating to permit requirements)] {Reserved}.

(1.1) Applicability of CCT steps to large, medium and small water systems.

(i) A large, medium or small community or nontransient noncommunity water system with CCT that exceeds either the lead or copper action level shall complete the reoptimized OCCT steps in paragraph (2.1) unless the system meets all of the following:

(A) Has reoptimized OCCT once under paragraph (2.1) after November 1, 2027.

(B) Is meeting Department designated OWQPs.

(C) Is continuing to operate and maintain CCT as required in paragraph (3.1).

(ii) The Department may require a system that satisfies subparagraph (i)(A)—(C) to reoptimize OCCT under paragraph (2.1).

(iii) After completing service line replacements in accordance with § 109.1110 (relating to service line and lead connector replacement requirements), if there are no lead, GRR or lead status unknown service lines remaining in the system's inventory, a water system that exceeds the lead action level at the end of a subsequent tap sampling period shall follow the steps in paragraph (2.1).

(iv) Large water systems without CCT that exceed either the lead PQL or the copper action level shall complete steps to study and install OCCT, as specified in paragraph (2.2).

(v) Medium water systems with CCT that do not exceed either the lead or copper action level and do not have Department designated OWQPs shall complete the CCT steps in paragraph (2.1)(v)—(vii) unless the system is deemed optimized in accordance with paragraph (1.3).

(vi) Medium and small water systems and nontransient noncommunity water systems without CCT that exceed either the lead or copper action level shall complete the OCCT steps in paragraph (2.2).

(1.2) Water systems eligible to be deemed to have OCCT.

(i) A small water system with Department designated OWQPs is not eligible to be deemed to have OCCT.

(ii) A medium water system without CCT or a small water system is deemed to have OCCT if the system meets the requirements of paragraph (1.3)(i).

(iii) A medium or large water system with CCT is deemed to have OCCT or reoptimized OCCT if it meets the requirements of paragraphs (1.3)(i) and (ii).

(1.3) Requirements to be deemed to have OCCT.

(i) Water systems specified under paragraph (1.2)(ii) that do not exceed the lead or copper action level during each of the two consecutive 6-month tap sampling monitoring periods and thereafter remain at or below the lead or copper action level in all tap sampling periods conducted in accordance with § 109.1103 are deemed to have OCCT or reoptimized OCCT. If a system later exceeds either the lead or copper action level during any future tap sampling period, the treatment steps in paragraph (2.2) shall be completed and the systems are not eligible to be deemed to have OCCT or reoptimized OCCT under this subparagraph.

(ii) Water systems specified under paragraph (1.2)(iii) that meet the requirements of subparagraph (i) and do not exceed the lead PQL for two consecutive 6-month tap sampling monitoring periods conducted in accordance with § 109.1103 are deemed to have OCCT or reoptimized OCCT.

(A) A water system specified under paragraph (1.2)(iii) that later exceeds the lead PQL or copper action level during any tap sampling period is not eligible to be deemed to have OCCT or reoptimized OCCT under this subparagraph and shall complete the treatment steps specified in paragraph (2.2).

(B) A water system deemed to have OCCT or reoptimized OCCT in accordance with this subparagraph shall continue monitoring for lead and copper at the tap no less frequently than once every 3 calendar years using the reduced number of sites specified in § 109.1103(a)(2.1), and collecting the samples at times and locations specified in § 109.1103(a)(2.1)(i).

(iii) A water system that has optimized or reoptimized CCT under this paragraph that has OCCT in place shall continue to operate and maintain that treatment, maintain Department designated WQPs and conduct lead and copper tap sampling in accordance with § 109.1103.

(2) [Corrosion control treatment compliance schedule. A system shall comply with the following schedule unless the system achieves optimal corrosion control treatment

under paragraph (1)(i) or (ii) prior to initiation of construction or modification of corrosion control treatment facilities.

(i) An existing large water system shall:

(A) Submit a corrosion control treatment feasibility study that complies with paragraph (3) by June 30, 1994.

(B) Submit a permit application for construction or modification of corrosion control treatment facilities by March 31, 1995.

(C) Initiate construction or modification of corrosion control treatment facilities by December 31, 1995.

(D) Complete construction or modification of corrosion control treatment facilities and begin operation of these facilities by January 1, 1997.

(E) Submit a request for a Department designation of optimal corrosion control treatment performance requirements by January 31, 1998.

(ii) A large water system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under paragraph (1), or any medium or small water system that exceeds an action level shall:

(A) Submit a corrosion control treatment feasibility study that complies with paragraph (3) within 18 months of the end of the monitoring period in which the action level was exceeded.

(B) Submit a permit application or otherwise comply with the permit application requirements under § 109.1105(b) for construction or modification of corrosion control treatment facilities within 30 months of the end of the monitoring period in which the action level was exceeded.

(C) Initiate construction or modification of corrosion control treatment facilities within 48 months of the end of the monitoring period in which the action level was exceeded.

(D) Complete construction or modification of corrosion control treatment facilities and begin operation of these facilities within 60 months of the end of the monitoring period in which the action level was exceeded.

(E) Submit a request for Department designation of optimal corrosion control treatment performance requirements within 30 days of the end of the second follow-up monitoring period required under § 109.1103(c)(1)(ii) following completion of construction or modification of corrosion control treatment facilities] {Reserved}.

(2.1) CCT steps and deadlines for water systems reoptimizing OCCT. A water system with CCT not deemed to have OCCT or reoptimized OCCT under paragraph (1.3) shall complete the following CCT steps in accordance with the applicable schedule specified in this paragraph. Water systems shall complete Steps 1—3 in subparagraphs (i)—(iii) within the timelines specified in this paragraph so that an approved OCCT permit is obtained no later than 36 months after the end of the tap sampling period in which they exceed the lead or copper action level. The treatment steps shall also be completed in accordance with the requirements in paragraph (3.1). Water systems shall conduct lead and copper tap sampling in accordance with § 109.1103 while completing the CCT steps in this paragraph.

(i) Step 1: Initiate mandatory pipe rig/loop study. Large or medium water systems with lead service lines that exceed the lead action level shall harvest lead service lines from the distribution system, construct flowthrough pipe rigs/loops and operate the rigs/loops with finished water within 1 year after the end of the tap sampling period in which they exceed the lead action level.

(ii) Step 2: Complete a CCT feasibility study for reoptimization.

(A) Large or medium water systems with lead service lines that exceed the lead action level shall complete and submit the CCT feasibility study for reoptimization using pipe rigs/loops with a permit application within 28 months after the end of the tap sampling period in which the system exceeded the lead action level.

(B) Large or medium water systems without lead service lines that exceed the lead or copper action level shall complete and submit the CCT feasibility study for reoptimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the lead or copper action level.

(C) Large or medium water systems with lead service lines that exceed the copper action level shall complete and submit the CCT feasibility study for reoptimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the copper action level.

(D) Small water systems and nontransient noncommunity water systems that exceed the lead or copper action level shall complete and submit the CCT feasibility study for reoptimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the lead or copper action level.

(E) Small water systems and nontransient noncommunity water systems that exceed only the lead action level and were not approved for a compliance flexibility option under subsection (d) shall complete and submit the CCT

feasibility study for reoptimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the lead action level.

(iii) Step 3: Obtain a permit for construction or modification of OCCT. After a water system identified in subparagraph (ii)(A) completes Step 2 in subparagraph (ii), the water system shall provide all necessary information to allow the Department to issue a permit within 36 months after the end of the tap sampling period in which the system exceeded the lead or copper action level. After a water system identified in subparagraph (ii)(B)—(E) completes Step 2 in subparagraph (ii), the water system shall provide all necessary information to allow the Department to issue a permit within 24 months after the end of the tap sampling period in which the system exceeded the lead or copper action level.

(iv) Step 4: Complete construction or modifications of OCCT. Water systems shall complete installation of reoptimized OCCT and obtain the operation permit within 12 months of obtaining a permit for construction or modification of OCCT.

(v) Step 5: Complete follow-up monitoring in accordance with § 109.1103(a)(1.1) and (b.1)(3). Water systems shall complete follow-up monitoring within 12 months after receiving the operation permit for construction or modification of OCCT.

(vi) Step 6: Submit a request for Department designation of OWQPs. Water systems shall complete this step within 30 days of completing follow-up monitoring under Step 5 in subparagraph (v) and obtain Department designated OWQPs within 6 months after completing follow-up monitoring under Step 5 in subparagraph (v).

(vii) Step 7: Operate in compliance with Department designated OWQPs and continue to conduct monitoring in accordance with § 109.1103. Water systems shall comply with the Department designated OWQPs and conduct standard monitoring in accordance with § 109.1103(a)(1.1)(i)(C)(V) and WQP monitoring in accordance with § 109.1103(b.1)(4).

(2.2) CCT steps and deadlines for water systems optimizing CCT or without CCT. A water system without CCT or not deemed to have OCCT under paragraph (1.3) shall complete the following CCT steps in accordance with the applicable schedule specified in this paragraph. Water systems shall complete Steps 1—3 in subparagraphs (i)—(iii) within the timelines specified in this paragraph so that an approved OCCT permit is obtained no later than 36 months after the end of the tap sampling period in which they exceed the lead or copper action level. The treatment steps must also be completed in accordance with the requirements in paragraph (3.1). Water systems shall conduct lead and copper tap sampling in accordance with § 109.1103 while completing the CCT steps in this paragraph.

(i) Step 1: Initiate mandatory pipe rig/loop study. Large or medium water systems with lead service lines that exceed the lead action level shall harvest lead service

lines from the distribution system, construct flowthrough pipe rigs/loops and operate the rigs/loops with finished water within 1 year after the end of the tap sampling period in which they exceed the lead action level.

(ii) Step 2: Complete a CCT feasibility study for optimization.

(A) Large or medium water systems with lead service lines that exceed the lead action level shall complete and submit the CCT feasibility study for optimization using pipe rigs/loops with a permit application within 28 months after the end of the tap sampling period in which the system exceeded the lead action level.

(B) Large water systems without lead service lines that exceed the lead PQL or copper action level shall complete and submit the CCT feasibility study for optimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the lead PQL or copper action level.

(C) Medium water systems without lead service lines that exceed the lead or copper action level shall complete and submit the CCT feasibility study for optimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the lead or copper action level.

(D) Medium water systems with lead service lines that exceed the copper action level shall complete and submit the CCT feasibility study for optimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the copper action level.

(E) Small water systems and nontransient noncommunity water systems that exceed the lead or copper action level shall complete and submit the CCT feasibility study for optimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the lead or copper action level.

(F) Small water systems and nontransient noncommunity water systems that exceed only the lead action level and were not approved for a compliance flexibility option under subsection (d) shall complete and submit the CCT feasibility study for optimization with a permit application within 16 months after the end of the tap sampling period in which the system exceeded the lead action level.

(iii) Step 3: Obtain a permit for construction of OCCT. After a water system identified in subparagraph (ii)(A) completes Step 2 in subparagraph (ii), the water system shall provide all necessary information to allow the Department to issue a permit within 36 months after the end of the tap sampling period in which the system exceeded the lead or copper action level. After a water system identified in subparagraph (ii) (B)—(F) completes Step 2 in subparagraph (ii), the water system

shall provide all necessary information to allow the Department to issue a permit within 24 months after the end of the tap sampling period in which the system exceeded the lead or copper action level.

(iv) Step 4: Complete construction of OCCT. Water systems shall complete installation of OCCT and obtain the operation permit within 24 months of obtaining a permit for construction or modification of OCCT.

(v) Step 5: Complete follow-up monitoring in accordance with § 109.1103(a)(1.1) and (b.1)(3). Water systems shall complete follow-up monitoring within 12 months after receiving the operation permit for construction of OCCT.

(vi) Step 6: Submit a request for Department designation of OWQPs. Water systems shall submit a request for Department designated OWQPs within 30 days of completing follow-up monitoring under Step 5 in subparagraph (v) and obtain Department designated OWQPs within 6 months after completing follow-up monitoring under Step 5 in subparagraph (v).

(vii) Step 7: Operate in compliance with Department designated OWQPs and continue to conduct monitoring in accordance with § 109.1103. Water systems shall comply with the Department designated OWQPs and conduct standard monitoring in accordance with § 109.1103(a)(1.1)(i)(C)(V) and WQP monitoring in accordance with § 109.1103(b.1)(4).

(3) [Corrosion control treatment feasibility study. The system shall prepare and submit a corrosion control treatment feasibility study to the Department by the applicable deadline established in paragraph (2). The purpose of this study is to identify corrosion control priorities, evaluate viable corrosion control approaches and select the optimal corrosion control treatment. As a minimum, the system shall include the information required in a basic study described in subparagraph (i). The Department may require a water supplier to conduct demonstration testing if the Department determines that a basic study is insufficient to determine optimal corrosion control treatment. Demonstration testing may also be required when a system continues to exceed an action level after corrosion control treatment has been installed.

(i) The basic study shall include the following information:

(A) A sample site location plan prepared in accordance with § 109.1103(g).

(B) A summary of lead and copper and water quality parameter monitoring results performed in accordance with § 109.1103. These results shall be evaluated considering the location of sample sites within the distribution system and used as the basis for considering corrosion control treatment options.

(C) An evaluation of source water contributions and the need for source water treatment.

- (D) A desktop evaluation of alkalinity and pH adjustment, calcium hardness adjustment and corrosion inhibitor addition or a combination of these treatments. The evaluation shall include analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration. If source water treatment is needed to achieve optimal corrosion control, the water supplier shall evaluate the source water treatments specified in paragraph (4).
- (E) An identification of chemical, physical or regulatory constraints on the use of a particular corrosion control treatment, such as its adverse effects on other treatment processes or the ability of wastewater facilities to comply with applicable statutes or regulations.
- (F) A recommendation of optimal corrosion control treatment, including source water treatment, if applicable, for the system based on the supporting documentation specified in clauses (A)—(E). When a system has multiple sources, it may be necessary for the system to provide different corrosion control treatment for different sources.
- (G) Recommended water quality parameter performance requirements for the selected corrosion control treatment.
- (H) A proposed schedule for completion of the remaining corrosion control treatment compliance steps in accordance with paragraph (2), including, but not limited to, treatment design and permit application submittal, financing and construction, and initiation of operation.
- (ii) A demonstration study shall include the evaluation of corrosion control treatments using pipe rig/loop tests, metal coupon tests or partial system tests] {Reserved}.

(3.1) Description of CCT steps.

(i) Step 1. Large or medium water systems with lead service lines that exceed the lead action level shall conduct pipe rig/loop studies using harvested lead service lines from its distribution system to assess the effectiveness of CCT options on the existing pipe scale. For these systems, metal coupon tests can be used as a screen to reduce the number of options that are evaluated in the pipe rig/loop studies to the current water quality and at least two additional treatment options. A water system shall receive Department approval and conduct pipe rig/loop studies as specified in the Department's Corrosion Control Treatment—Basic Feasibility Study guidance document.

(ii) Step 2. The system shall prepare and submit a CCT feasibility study to the Department as part of the construction permit application by the applicable deadline in paragraph (2.1)(ii) or (2.2)(ii).

(A) The purpose of the feasibility study is to identify corrosion control priorities, evaluate viable corrosion control approaches and select OCCT. The study shall include the following information:

(I) A sample site plan prepared in accordance with § 109.1109(c).

(II) A summary of lead and copper and WQP monitoring results performed in accordance with § 109.1103.

(III) A desktop evaluation of the treatments specified in items (-a-)—(-d-) individually or, if appropriate, in combinations, using pipe rig/loop tests, metal coupon tests or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration, or computer models acceptable to the Department.

(-a-) Alkalinity and pH adjustment or readjustment.

(-b-) The addition of an orthophosphate or silicate-based corrosion inhibitor at a concentration sufficient to maintain an effective corrosion inhibitor residual concentration in all test samples. This evaluation is not necessary for a water system that is reoptimizing OCCT and already utilizing an inhibitor.

(-c-) The addition of an orthophosphate-based corrosion inhibitor at a concentration sufficient to maintain an orthophosphate residual concentration of 1 mg/L (as PO₄) in all test samples. This evaluation is not necessary for a water system reoptimizing OCCT that already uses an orthophosphate-based inhibitor process which is meeting the residual concentration of 1 mg/L (as PO₄).

(-d-) The addition of an orthophosphate-based corrosion inhibitor at a concentration sufficient to maintain an orthophosphate residual concentration of 3 mg/L (as PO₄) in all test samples. This evaluation is not necessary for a water system reoptimizing OCCT that already uses an orthophosphate-based inhibitor process which is meeting the residual concentration of 3 mg/L (as PO₄).

(IV) An identification and documentation of chemical, physical or regulatory constraints on the use of a particular CCT, such as its adverse effects on other treatment processes or the ability of wastewater facilities to comply with applicable statutes or regulations. Systems required to complete treatment Step 1 in subparagraph (i) or demonstration testing under clause

(B) may not exclude treatment strategies from the studies based on the constraints identified in this subclause unless the treatment was found to be ineffective in a previous pipe loop/rig study.

(V) A recommendation of OCCT or reoptimized OCCT for the system, based on the supporting documentation specified in subclauses (I)—(IV). When a system has multiple sources, it may be necessary for the system to provide different OCCT for different sources.

(VI) Recommended WQPs for the selected OCCT.

(VII) A proposed schedule for completion of the remaining CCT steps in accordance with paragraphs (2.1) and (2.2), including, but not limited to, treatment design and permit application submittal, financing and construction, and initiation of operation.

(B) In addition to the water systems required to complete treatment Step 1 in subparagraph (i), the Department may require a water system to conduct demonstration testing if the Department determines that a feasibility study is insufficient to determine OCCT. Demonstration testing may also be required when a system continues to exceed an action level after OCCT has been installed. A demonstration study must include the evaluation of CCT using pipe rig/loop tests or metal coupon tests.

(C) The Department's *Corrosion Control Treatment—Basic Feasibility Study* guidance document sets forth procedures which the Department finds to be acceptable for conducting a feasibility study. Other procedures may be approved by the Department if the water system demonstrates the alternate procedure is reliable.

(iii) Step 3. Obtain a construction permit in accordance with § 109.503 (relating to public water system construction permits) as required under paragraph (2.1) or (2.2).

(iv) Step 4. Complete construction or modifications of OCCT in accordance with the plans and specifications approved in the construction permit, submit a certificate of construction in accordance with § 109.504(a) (relating to public water system operation permits) and obtain an operation permit as required under paragraph (2.1) or (2.2).

(v) Step 5. Complete follow-up monitoring in accordance with § 109.1103(a)(1.1) and (b.1)(3) on the applicable schedule specified in paragraphs (2.1) and (2.2).

(vi) Step 6. Following completion of Step 5 in subparagraph (v), obtain Department designated WQPs within the time frames established in paragraphs (2.1) and (2.2). The request shall contain a summary of analyses from follow-up sampling

conducted under Step 5 in subparagraph (v) and recommended WQPs if different from those recommended by the water system as part of the construction permit application. The Department designated WQPs will be specified in the amended operation permit issued in accordance with paragraphs (2.1) and (2.2). The Department may designate values for additional WQPs in the operation permit if the Department determines these requirements are necessary to ensure OCCT. Depending on the type of CCT, WQPs will be designated as follows:

(A) For pH:

(I) A minimum value or range of values to be maintained at each entry point to the distribution system.

(II) A minimum value to be maintained in distribution system. This value must be equal to or greater than 7.0 unless the Department agrees that meeting a pH level of 7.0 is not technologically feasible or is not necessary for OCCT.

(B) If a corrosion inhibitor is used:

(I) A minimum concentration or range of concentrations for orthophosphate (as PO₄) or silicate to be maintained at each entry point.

(II) A minimum concentration for orthophosphate (as PO₄) or silicate that the Department determines is necessary to maintain a passivating film on the interior walls of the pipes in the distribution system. When orthophosphate is used for OCCT designations for systems previously without CCT, the orthophosphate concentration must be equal to or greater than 0.5 mg/L (as PO₄) and for OCCT designations for systems previously with CCT, the orthophosphate concentration must be equal to or greater than 1.0 mg/L (as PO₄), unless the Department determines that meeting the applicable minimum orthophosphate residual is not technologically feasible or is not necessary for OCCT.

(C) If alkalinity is adjusted as part of OCCT, a minimum concentration or range of concentrations for alkalinity to be maintained at each entry point and in all tap samples.

(vii) Step 7. A water system that has installed or reoptimized OCCT under treatment Steps 1—6 in subparagraphs (i)—(vi) shall:

(A) Continue to operate and maintain OCCT, including WQPs at or above minimum values or within specified ranges designated by the Department in the operation permit issued in accordance with paragraphs (2.1) and (2.2).

(I) A system is out of compliance with the requirements of this subparagraph for a 6-month period if it has excursions for any Department specified WQPs on more than 9 days, cumulatively, during the 6-month monitoring period. An excursion occurs whenever the daily value for one or more of the WQPs is below the minimum value or outside the range of values designated by the Department. An excursion of more than one daily value for a WQP in a single day counts as one excursion day.

(II) Daily values are calculated as follows:

(-a-) On days when more than one sample for the WQP is collected at a sampling location, the daily value must be the average of all results collected during the day including continuous monitoring or grab samples, or both.

(-b-) On days when only one sample for the WQP is collected at a sampling location, the daily value must be the result of that sample.

(-c-) On days when there is no valid sample data for the WQP at a sampling location, the daily value must be the most recent calculated daily value for which a WQP was sampled at that location.

(B) Continue to conduct lead and copper tap monitoring and WQP monitoring in accordance with § 109.1103.

(4) Source water treatment steps. [A system that must reduce the concentration of lead or copper in its source water to achieve optimal corrosion control shall provide source water treatment] **A water system which exceeds either the lead or copper action level shall complete the following applicable source water treatment steps.**

(i) Step 1: Complete entry point monitoring and determine need for source water treatment. A system which exceeds either the lead or copper action level shall conduct [initial source water monitoring] **lead and copper entry point monitoring** in accordance with § [109.1103(a)(3)] **109.1103(f.1)**. The water supplier shall use the results of this monitoring along with the results of lead and copper tap and [water quality parameter] **WQP** monitoring to determine [corrosion control treatment priorities including] the need for source water treatment [as part of the corrosion control feasibility study required under paragraph (3)]. **Within 6 months after the end of the tap sampling period in which the lead or copper action level was exceeded, the water system shall make a recommendation in writing to the Department of one of the following:**

(A) A determination that source water treatment is not required, based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps. The Department will notify the system within 6 months whether the Department agrees with this recommendation or that source

water treatment is required as specified under clause (B). If the Department agrees with the recommendation, no further steps are necessary under this subsection.

(B) A determination that source water treatment is required. The water system shall also submit a permit application for construction of source water treatment in accordance with § 109.503. Prior to submitting the permit application, the water system shall evaluate treatments including ion exchange, reverse osmosis, lime softening, coagulation/filtration and other treatments acceptable to the Department. The water system shall recommend a source water treatment and maximum permissible lead and copper entry point levels for the selected treatment in the construction permit application.

(ii) [If source water treatment needs to be evaluated, the water supplier shall evaluate treatments including ion exchange, reverse osmosis, lime softening and coagulation/filtration. The water supplier shall recommend a source water treatment along with the recommendation for optimal corrosion control treatment. The water supplier shall include recommended source water treatment performance requirements for the selected treatment] {Reserved}.

(ii.1) Step 2: Obtain construction permit. The construction permit shall be obtained within 12 months after the end of the tap sampling period in which the lead or copper action level was exceeded.

(iii) [If, after review of the feasibility study, the Department determines that source water treatment is necessary as part of a system's overall approach to achieving optimal corrosion control, the water supplier shall provide source water treatment under the compliance schedule established in paragraph (2) for corrosion control treatment. The Department may require the water supplier to provide source water treatment for lead on an earlier schedule if the Department determines that lead in the source water presents an imminent hazard to the public health] {Reserved}.

(iii.1) Step 3: Complete construction of source water treatment. Complete construction of source water treatment in accordance with the plans and specifications approved in the construction permit, submit a certificate of construction and obtain an operation permit in accordance with § 109.504(a) within 24 months of obtaining the construction permit.

(iv) [Following the installation of source water treatment, the water supplier shall conduct source water monitoring in accordance with § 109.1103(c)(3). Based on the results of this monitoring and lead and copper tap and water quality parameter monitoring, the Department will establish source water treatment performance requirements when water quality parameter performance requirements are established for the system under paragraph (5)] {Reserved}.

(iv.1) Step 4: Follow-up monitoring. Complete follow-up tap monitoring and entry point monitoring in accordance with § 109.1103(a)(1.1)(i)(C)(VI) and (f.1)(3) within 12 months of completing construction of source water treatment.

(v) Step 5: Designation of maximum permissible entry point levels. Within 30 days of completing Step 4 in subparagraph (iv.1), the water system shall submit a request for an amended operation permit in accordance with § 109.504 to designate the maximum permissible lead and copper entry point levels. The Department will review results of lead and copper entry point and tap monitoring, taken both before and after the water system installed source water treatment, and designate maximum permissible lead and copper entry point levels. The designated levels will reflect the contaminant removal capability of the treatment when properly operated and maintained. The Department will designate these levels within 6 months of completion of follow-up monitoring if the water system submits the request within the time frame specified in this subparagraph.

(vi) Step 6: Continued operation and monitoring. Operate in compliance with Department designated maximum permissible lead and copper entry point levels and continue to conduct monitoring in accordance with § 109.1103. The system is out of compliance with this paragraph if the level of lead or copper at the entry point is greater than the maximum permissible level designated by the Department.

(5) [Water quality parameter performance requirements. The Department will designate optimal corrosion control treatment water quality parameter performance requirements for large water systems by June 30, 1998, and for medium or small water systems within 18 months after the system completes construction or modification of corrosion control treatment, if the water supplier submits a request for Department designation of performance requirements within the time frames established in paragraph (2) and the request contains the information specified in § 109.1107(a)(3)(v) (relating to system management responsibilities). The performance requirements will be specified in the amended operation permit issued in accordance with § 109.1105(c). A system shall maintain the designated water quality parameter performance requirements at or above minimum values or within specified ranges designated by the Department. The Department may designate values for additional water quality parameters if the Department determines these requirements are necessary to assure optimal corrosion control treatment. Depending on the type of corrosion control treatment, the performance requirements will be designated as follows:

(i) A minimum value or range of values for pH measured at each entry point to the distribution system.

(ii) A minimum pH value measured in distribution system samples.

(iii) If a corrosion inhibitor is used, a minimum concentration or range for the inhibitor necessary to form a passivating film on the interior walls of the

distribution system pipes. The inhibitor concentration is measured at each entry point and in all distribution system samples.

(iv) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or range of concentrations for alkalinity measured at each entry point and in distribution system samples.

(v) If calcium carbonate stabilization is used as part of optimal corrosion control treatment, a minimum concentration or range of concentrations for calcium measured in distribution system samples] {Reserved}.

(5.1) Completing CCT steps for small and medium water systems without CCT.

(i) Any small or medium water systems without CCT required to complete the steps in paragraph (2.2) that do not exceed the lead action level or copper action level during two consecutive 6-month monitoring periods prior to the start of Step 2 in paragraph (2.2)(ii) or prior to or concurrent with the end of Step 3 in paragraph (2.2)(iii) may stop completing the steps.

(A) Medium water systems without CCT and with lead service lines shall complete a CCT study under Step 1 in paragraph (2.2)(i) even if they qualify for this exception.

(B) A 90th percentile concentration at or below the lead action level or copper action level based on less than the required minimum number of samples under § 109.1103 may not be used to meet the requirements of this paragraph.

(C) Eligible systems may only use this exception once.

(ii) A system that starts Step 4 in paragraph (2.2)(iv) shall complete all the remaining steps in paragraphs (2.2)(v)—(vii) and is not permitted to stop the steps.

(iii) A small or medium water system without CCT under subparagraph (i) that stopped the steps in paragraph (2.2) and subsequently exceeds either the lead or copper action level shall complete the CCT steps in paragraph (2.2) beginning with the first treatment step that was not completed.

(iv) The Department may require a water system to repeat treatment steps previously completed by the water system when the Department determines that this is necessary to implement the treatment requirements in this subsection. The Department will notify the system in writing of such a determination and explain the basis for its decision.

(c) Notification and approval requirements for upcoming long-term change in treatment or source. As early as possible but no later than 6 months prior to the addition of a new source or any long-term change in treatment, a water system shall submit written documentation

describing the addition of a new source or any long-term change in treatment to the Department. A water system may not implement the addition of a new source or long-term change in treatment without Department review and approval in accordance with Subchapter E (relating to permit requirements). A water system may need to take actions before or after the addition of a new source or long-term change in treatment, as required by the Department, to ensure that the system will operate and maintain OCCT.

(d) *Small water system compliance flexibility options.* Small community water systems serving 3,300 or fewer persons that exceed the lead action level, but do not exceed the copper action level and that have control over and access to all premise plumbing and service connections served by the water system and all nontransient noncommunity water systems that exceed the lead action level, but do not exceed the copper action level and that have control over and access to all plumbing in buildings served by the water system may recommend one of the compliance alternatives in this subsection. If one of the compliance alternatives is denied by the Department, the system may recommend the other compliance alternative. Systems not recommending one of these options shall comply with the requirements in subsection (b).

(1) *Alternative compliance option requirements for small community water systems and nontransient noncommunity water systems.* Small community water systems and nontransient noncommunity water systems that elect to use one of the alternative compliance options shall:

(i) Submit the recommendation in accordance with the following schedule:

(A) Within 3 months of the end of the tap sampling period in which the lead action level exceedance occurred, the system shall recommend one of the compliance alternatives specified in paragraph (4) or (5). Within 2 months of receiving the recommendation, the Department will approve or disapprove the recommendation in writing.

(B) Within 3 months after receiving the Department's disapproval of the first compliance alternative, submit the other compliance alternative specified in paragraph (4) or (5). Within 2 months of receiving the new recommendation, the Department will approve or disapprove the new recommendation in writing. If the water system does not recommend the second alternative compliance option, the system shall comply with the applicable CCT requirements under subsection (b)(2.1) for systems with corrosion control or subsection (b)(2.2) for systems without corrosion control. The system shall follow the schedules, beginning in subsection (b)(2.1)(ii) or (2.2)(ii).

(ii) Collect WQPs in accordance with § 109.1103(b.1)(2) for systems who have not installed OCCT in accordance with subsection (b)(2.2) or systems who have not reoptimized OCCT in accordance with subsection (b)(2.1).

(iii) Continue to operate and maintain OCCT, for systems with OCCT installed, until the Department determines, in writing, that it is no longer necessary, and meet any requirements that the Department determines to be appropriate before implementing the Department approved alternate compliance option.

(iv) Submit the alternative compliance recommendation on forms provided by the Department.

(2) CCT requirements if the Department disapproves an alternative compliance. If the Department does not approve an alternative compliance option, the system shall comply with the applicable CCT requirements under subsection (b)(2.1) for systems with corrosion control or subsection (b)(2.2) for systems without corrosion control. The system shall follow the schedules, beginning in subsection (b)(2.1)(ii) or (2.2)(ii).

(3) Requirements if a system fails to implement an approved alternative compliance option or the Department revokes approval. If the system fails to implement the approved alternative compliance option, or the Department revokes approval for the alternate compliance option, then the system shall follow the requirements for small and nontransient noncommunity water systems as described under subsection (b)(2.1) for systems with corrosion control or subsection (b)(2.2) for systems without corrosion control.

(4) Alternative compliance option: POU devices.

(i) A water system that elects the alternate compliance option in this paragraph shall install, maintain and monitor POU devices in each household and each building served by the water system as an alternative compliance option. The water system shall install a POU device to every tap that is used for cooking or drinking on a schedule specified by the Department, not to exceed 3 months.

(ii) The POU devices shall be independently certified by a third party to meet the ANSI/NSF standard applicable to the specific type of POU device to reduce lead in drinking water.

(iii) The POU devices shall be:

(A) Maintained by the water system in accordance with the manufacturer's recommendations and the ANSI/NSF certification requirements or on a more frequent schedule if required by the Department to ensure continued effective filtration, including, but not limited to, changing filter cartridges and resolving any operational issues.

(B) Equipped with mechanical warnings to ensure that consumers are automatically notified of operational problems.

(iv) The water system shall provide documentation to the Department to certify maintenance of the POU devices in accordance with § 109.1107(a)(6.1)(i) (relating to system management responsibilities).

(v) The water system shall monitor 1/3 of the POU devices for lead each year and all POU devices shall be monitored within a 3-year period.

(A) First-liter tap samples collected under this subparagraph shall be taken after water passes through the POU device to assess its performance.

(B) Samples shall be 1 liter in volume and have had a minimum 6-hour stagnation time.

(C) The water system shall report the results from the tap sampling no later than 10 days after the end of the tap sampling period in accordance with § 109.1107(a)(6.1)(i).

(D) All tap samples must be at or below the lead action level specified in subsection (a)(1)(i).

(E) If a sample exceeds the lead action level, the water system shall notify the persons served by the POU device or building management, or both, no later than 1 business day after receiving the tap sample results. The water system shall document and take corrective action at each site where the sample result exceeds the lead action level. Corrective action shall be completed in accordance with § 109.1107(a)(6.1)(i).

(vi) The water system shall provide public education to consumers to inform them of proper use of POU devices.

(A) All small community water systems serving 3,300 or fewer persons and nontransient noncommunity water systems that are approved to implement POU devices under this paragraph shall provide public education materials to inform users how to properly use POU devices to maximize the devices' effectiveness in reducing lead levels in drinking water. Public education materials shall meet the requirements of § 109.1104(a)(1) (relating to public education and notification, supplemental monitoring and mitigation requirements).

(B) Water systems shall provide the public education materials at the time of POU device delivery.

(C) Water systems shall provide the public education materials in person, by mail or by another method approved by the Department to persons at locations where the system has delivered POU devices.

(vii) If the water system fails to operate and maintain the POU devices, the Department may require the water system to comply with the applicable CCT requirements under subsection (b)(2.1) or (2.2).

(viii) The water system shall operate and maintain the POU devices in future tap monitoring periods until one of the following occurs:

(A) The system receives Department approval to select the other compliance flexibility option and has fully implemented it.

(B) The system chooses to comply with the CCT requirements and completes all applicable steps under subsection (b)(2.1) or (2.2).

(C) The Department requires the water system to comply with the applicable CCT requirements under subsection (b)(2.1) or (2.2) and has obtained an operation permit. The system shall follow the schedules, beginning in subsection (b)(2.1)(ii) or (2.2)(ii).

(5) *Alternative compliance option: replacement of lead-bearing plumbing.*

(i) A water system that has control over and access to all plumbing and service connections served by the system, is not served by lead, GRR or unknown service lines, and that elects the alternate compliance option in this paragraph shall replace all potable plumbing that is not lead free in accordance with section 1417 of the Federal act (42 U.S.C. § 300g-6), as amended by the Reduction of Lead in Drinking Water Act (Public Law 111-380, 124 Stat. 4131), and any future amendments applicable at the time of replacement. The replacement of all lead-bearing plumbing shall occur on a schedule approved by the Department, not to exceed 1 year.

(ii) Water systems shall provide certification to the Department that all lead-bearing material has been replaced within 1 year of the Department approval of this compliance option as required in § 109.1107(a)(6.1)(ii).

(e) *Distribution System and Site Assessment.* A water system shall conduct the following steps when an individual tap sample exceeds the lead action level for monitoring conducted under § 109.1103(a) and the site is included in the site sample plan.

(1) *Step 1: Additional WQP monitoring.* The water system shall measure the WQPs specified in subparagraph (i) at a location meeting one of the descriptions in subparagraph (ii) within 5 days of receiving the sample result that exceeded the action level. Water systems without CCT are not required to collect these samples.

(i) The water system shall measure the following WQPs:

(A) pH.

(B) Alkalinity.

(C) Orthophosphate (as PO₄), when an inhibitor containing an orthophosphate compound is used.

(D) Silica, when an inhibitor containing a silicate compound is used.

(ii) The WQPs shall be measured at one of the following locations:

(A) An existing WQP sample site that is on the same size water main, in the same pressure zone and located within a 1/2-mile radius of the site with the action level exceedance.

(B) A new WQP site added in accordance with subparagraph (iii).

(iii) Water systems required to meet Department designated OWQPs that do not have an existing site as specified under subparagraph (ii)(A) shall add a new site that is on the same size water main, in the same pressure zone and located within a 1/2-mile radius of the site with the action level exceedance. Sites shall be added in accordance with § 109.1103(f)(3)(ii). When a system exceeds twice the number of sites, the water system shall determine which sites can better assess the effectiveness of the CCT and provide documentation to the Department justifying the decision. The Department will notify the system if it disagrees with the water system's assessment or if it determines that retaining all the WQP sites and exceeding the maximum number of sites is necessary to demonstrate OCCT.

(iv) All monitoring required under this paragraph is in addition to WQP monitoring required under § 109.1103(b.1).

(2) Step 2: Follow-up sample. Water systems shall collect a follow-up sample for lead at any tap sample site that exceeds the lead action level within 30 days of receiving the sample results. The follow-up sample may use different sample volumes or different sample collection procedures, if needed to better assess the source of elevated lead levels. Samples collected under this section shall be submitted to the Department and may not be included in the 90th percentile calculation for compliance monitoring conducted under § 109.1103(a). If the water system is unable to collect a follow-up sample at a site, the water system shall provide documentation to the Department, explaining why it was unable to collect a follow-up sample.

(3) Step 3: Distribution system recommendation. Water systems shall evaluate the results of the monitoring conducted under this subsection to determine if adjustment or modification of the OCCT or other distribution system actions are necessary. Following this evaluation, the water system shall submit a recommendation to the Department within 6 months after the end of the tap sampling period in which the sites exceeded the lead action level. CCT adjustment or modification may not be necessary to address every exceedance, in some cases implementing distribution system best management

practices such as flushing to reduce water age may be more appropriate. The recommendation shall comply with the following:

(i) A water system shall note the cause of the elevated lead level, if determined during Steps 1 and 2 in paragraphs (1) and (2), in its recommendation to the Department.

(ii) If the recommendation includes installation or modification of OCCT, the recommendation shall be made in the form of a permit application in accordance with § 109.503 and follow the requirements of subsection (b).

(iii) Systems required to optimize or reoptimize OCCT under subsection (b) do not need to submit a treatment recommendation for Distribution System and Site Assessment.

(4) Step 4: Department response. The Department will respond to the recommendation made in Step 3 in paragraph (3) as follows:

(i) If the recommendation includes installation or modification of OCCT, and the Department approves the recommendation, the approval will be in the form of a construction permit in accordance with § 109.503.

(ii) If the recommendation includes adjustment to OCCT, and the Department approves the recommendation, new WQPs will be designated that comply with the requirements of treatment Step 6 in subsection (b)(3.1)(vi).

(iii) If the Department does not approve the recommendations in accordance with subparagraph (i) or (ii), the water system shall recommend an alternate approach and obtain Department approval within 6 months of the Department's disapproval.

(5) Step 5: Implementation of approved recommendation.

(i) If the Department-approved recommendation requires the water system to modify OCCT, the water system shall complete modifications and obtain an amended operation permit within 12 months after completion of Step 4 in paragraph (4).

(ii) For systems without CCT, if the Department-approved recommendation requires the water system to install OCCT, the water system shall follow the treatment steps in accordance with subsection (b)(2.2) and (3.1).

(iii) If the Department designates new WQPs under Step 4 in paragraph (4)(ii), the water system shall begin complying with the new WQPs immediately upon issuance of an amended operation permit.

(6) Step 6: Treatment steps for systems modifying OCCT. Water systems that modify OCCT under Step 5 in paragraph (5)(i) shall complete treatment Steps 5—7 specified under subsection (b)(2.1)(v)—(vii) or (2.2)(v)—(vii).

§ 109.1103. Monitoring requirements.

(a) [Initial monitoring] Monitoring requirements for lead and copper in tap water. Water systems shall sample for lead and copper in accordance with the requirements of this subsection from taps used to provide water for human consumption and from sites selected in accordance with § 109.1109(c) (relating to service line and connector inventory, service line replacement plan and sample site plan). The lead and copper action levels and lead PQL referenced within this section are defined in § 109.1102(a) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements).

(1) [Initial lead and copper tap monitoring. The initial lead and copper tap monitoring for community and nontransient noncommunity water systems consists of two consecutive 6-month periods. Monitoring periods begin in January and July and end in June and December.

(i) In accordance with 40 CFR 141.86(d)(1) (relating to monitoring requirements for lead and copper in tap water), the first 6-month monitoring period for large, medium and small water systems shall begin on the following dates:

<i>System size</i>	<i>1st monitoring period begins on</i>
Large...	January 1, 1992
Medium...	July 1, 1992
Small...	July 1, 1993

(ii) The first 6-month monitoring period for a new water system created after June 26, 1995, shall begin with the next 6-month monitoring period following the issuance of an operations permit or following the system's provision of water to a sufficient number of sampling sites for the water supplier to comply with sample site requirements under subsection (g), whichever period is later.

(iii) A large water system shall monitor during two consecutive 6-month periods and shall comply with the corrosion control treatment compliance schedule under § 109.1102(b)(2) (relating to action levels and treatment technique requirements) or achieve optimal corrosion control treatment under § 109.1102(b)(1)(ii).

(iv) A small or medium water system shall monitor during each 6-month monitoring period until one of the following occurs:

(A) The system exceeds either the lead or copper action level and is therefore required to comply with the corrosion control treatment compliance schedule under § 109.1102(b)(2).

(B) The system meets both the lead and copper action levels during two consecutive 6-month monitoring periods, in which case the system qualifies for reduced monitoring in accordance with subsection (e)(1).

(v) A system shall collect at least one sample during each monitoring period from the number of sample sites listed in the following chart. The sample sites shall be selected in accordance with subsection (g).

<i>System size (# of people served)</i>	<i># of Sample Sites</i>
> 100,000...	100
10,001 to 100,000...	60
3,301 to 10,000...	40
501 to 3,300...	20
101 to 500...	10
100 or fewer...	5]

{Reserved}.

(1.1) *Standard monitoring.* Standard monitoring is a 6-month tap monitoring period that begins on January 1 or July 1 and consists of collecting at least one sample from the number of sites listed in the following chart:

<u><i>System size (# of people served)</i></u>	<u><i>Standard monitoring number of sites</i></u>
<u>>100,000</u>	<u>100</u>
<u>10,001 to 100,000</u>	<u>60</u>
<u>3,301 to 10,000</u>	<u>40</u>
<u>501 to 3,300</u>	<u>20</u>
<u>101 to 500</u>	<u>10</u>
<u>≤100</u>	<u>5</u>

(i) The following systems shall conduct standard monitoring for at least two consecutive tap monitoring periods beginning January 1 or July 1, whichever is sooner, following the tap sampling period in which the criterion requiring standard monitoring is met, unless a different date is listed. Systems shall continue monitoring in accordance with this subparagraph until the criteria for reduced monitoring under paragraph (2.1) is met.

(A) Water systems with lead or GRR service lines in their inventory as of November 1, 2027, including those deemed optimized under § 109.1102(b)(1.2) and (1.3) shall begin standard monitoring January 1, 2028, unless the system has, by that date, met all of the following criteria:

(I) The system conducts compliance monitoring at sites that meet the correct priority tiering, targeting sites served by lead and GRR service lines in accordance with § 109.1109(c)(1).

(II) The system collects samples in accordance with all sample collection requirements specified in paragraph (4) and § 109.1109(c)(1)(viii).

(III) The system collects either first-liter samples or first-liter and fifth-liter paired samples in accordance with paragraph (4).

(IV) The system shall provide documentation to the Department by December 31, 2027, that demonstrates the criteria in subclauses (I)—(III) have been met.

(B) A water system whose most recent 90th percentile lead or copper results as of November 1, 2027, exceeds the lead or copper action level shall begin standard monitoring January 1, 2028.

(C) Systems meeting any of the following criteria:

(I) A water system that exceeds a lead or copper action level.

(II) A water system that fails to operate at or above the minimum value or within the range of values for the OWQP designated by the Department under § 109.1102(b)(3.1) for more than 9 days in any tap monitoring period as specified in subsection (b.1).

(III) A water system that becomes a large water system without CCT or a large water system without CCT whose lead 90th percentile exceeds the lead PQL.

(IV) A water system that installs OCCT or reoptimizes OCCT as a result of exceeding the lead or copper action level, or a water system that adjusts OCCT following a Distribution System and Site Assessment. Systems conducting standard monitoring under this criterion shall continue standard monitoring until the Department designates new OWQP, at which point systems shall continue standard monitoring under subclause (V).

(V) A water system for which the Department has designated new values for OWQP under § 109.1102.

(VI) A water system that installs source water treatment under § 109.1102(b)(4).

(VII) A water system that has notified the Department in writing in accordance with Subchapter E (relating to permit requirements) of an upcoming addition of a new source or long-term change in treatment other than OCCT, unless the Department determines that the addition of the new source or long-term change in treatment is not significant and, therefore, does not warrant more frequent monitoring.

(VIII) A water system without lead or GRR service lines in its inventory that notifies the Department under § 109.1109(a)(9)(ii) of any subsequently discovered lead or GRR service lines in its distribution system, unless the system replaces all the discovered service lines before the start of the next tap monitoring period.

(ii) A water system approved to operate after November 1, 2027, shall begin standard monitoring during the first 6-month monitoring period, beginning either January 1 or July 1, following the issuance of an operation permit or noncommunity water system approval.

(2) *[Initial water quality parameter monitoring.* A system shall measure the applicable water quality parameters in the distribution system and at each entry point. A large water system shall conduct initial water quality parameter monitoring during each initial monitoring period specified in paragraph (1). A small or medium water system shall conduct initial water quality parameter monitoring during the first monitoring period in which the system exceeds the lead or copper action level.

(i) The following water quality parameters shall be measured as applicable:

(A) pH.

(B) Alkalinity.

(C) Orthophosphate, when an inhibitor containing a phosphate compound is used.

(D) Silica, when an inhibitor containing a silicate compound is used.

(E) Calcium.

(F) Conductivity.

(G) Water temperature.

(ii) A system shall collect two sets of water quality parameter distribution samples from the following number of sample sites. The sets of samples shall be collected from the same sample sites on different days and analyzed for the applicable water quality parameters.

<i>System size (# of people served)</i>	<i># of Sample Sites</i>
> 100,000...	25
10,001 to 100,000...	10
3,301 to 10,000...	3
501 to 3,300...	2
500 or fewer...	1

(iii) A system shall also collect two sets of water quality parameter samples at each entry point. The sets of samples shall be collected on different days and analyzed for the applicable water quality parameters] {Reserved}.

(2.1) Reduced monitoring. Reduced monitoring refers to an annual or triennial tap monitoring period based on the most recent 90th percentile value for the water system. Each annual or triennial tap monitoring period includes one tap sampling period. A system conducting reduced monitoring shall collect at least one sample from the number of sites specified in the following chart unless otherwise specified in this paragraph. Reduced monitoring sites shall be selected in accordance with the tap sample site selection requirements in § 109.1109(c)(1). Lead and copper sampling results collected from sites where POU devices are installed under § 109.1102(d)(4) may not be used to meet the criteria for reduced monitoring under this section. The Department may specify sampling locations when a system is conducting reduced monitoring and may also require an eligible system to conduct more frequent monitoring.

<i><u>System size (# of people served)</u></i>	<i><u>Number of sites</u></i>
<u>>100,000</u>	<u>50</u>
<u>10,001 to 100,000</u>	<u>30</u>
<u>3,301 to 10,000</u>	<u>20</u>
<u>501 to 3,300</u>	<u>10</u>
<u>500 or fewer</u>	<u>5</u>

(i) Criteria for reduced monitoring. Systems are eligible for reduced monitoring if they meet all the requirements of subparagraph (ii) or (iii) after collecting at least the minimum number of samples required for at least two consecutive tap monitoring periods. A system that fails to meet the criteria for reduced monitoring under this section shall conduct standard lead and copper tap monitoring in accordance with paragraph (1.1).

(ii) Annual lead and copper tap monitoring. If the conditions in clauses (A)—(C) are met, a system may reduce the monitoring frequency to annual monitoring. The annual monitoring period begins the calendar year following the most recent tap monitoring period. A system on an annual frequency shall sample at the standard number of sampling sites specified in paragraph (1.1) for lead and at the reduced number of sites specified in this paragraph for copper.

(A) The system does not exceed the lead action level or copper action level during each of two consecutive 6-month tap monitoring periods.

(B) For systems operating OCCT, the system maintains the range of Department designated OWQPs in accordance with the compliance requirements specified in § 109.1102(b)(2.1) during each of two consecutive 6-month monitoring periods.

(C) The system receives a written determination from the Department approving annual monitoring based on a review of monitoring, treatment and other relevant information submitted by the system in accordance with § 109.1107 (relating to system management responsibilities).

(iii) Triennial lead and copper tap monitoring.

(A) A small or medium-sized water system may reduce the frequency of monitoring to triennial monitoring and sample at the reduced number of sites for lead and copper in accordance with this paragraph if the conditions in subclauses (I)—(III) are met.

(I) The system does not exceed the lead or copper action level during each of 3 consecutive years of monitoring, including monitoring conducted at both standard and annual frequencies. Standard or follow-up monitoring completed during both 6-month periods of a calendar year is considered 1 year of monitoring.

(II) Systems operating OCCT shall maintain the range of Department designated OWQPs in accordance with the compliance requirements specified in § 109.1102(b)(2.1) during each of 3 consecutive years of monitoring, including monitoring conducted at both standard and annual frequencies. Standard or follow-up monitoring completed during both 6-month periods of a calendar year is considered 1 year of monitoring.

(III) The system receives a written determination from the Department approving triennial monitoring based on the Department's review of monitoring, treatment and other relevant information submitted by the system in accordance with § 109.1107.

(B) A water system may reduce the frequency of monitoring to triennial monitoring and sample at the reduced number of sites for lead and copper in accordance with paragraph (4) if the following conditions are met:

(I) The water system demonstrates for two consecutive tap monitoring periods that its 90th percentile lead level, calculated in accordance with § 109.1102(a.1), is less than or equal to the lead PQL and the 90th percentile copper level, calculated in accordance with § 109.1102(a.1), is less than or equal to the copper PQL.

(II) Systems operating OCCT shall maintain the range of Department designated OWQPs in accordance with the compliance requirements specified in § 109.1102(b)(2.1) during each of the tap monitoring periods.

(III) The water system receives a written determination from the Department approving triennial monitoring based on the Department's review of

monitoring, treatment and other relevant information submitted by the system in accordance with § 109.1107.

(C) The first triennial monitoring period begins the 3-year period following the end of the 3rd consecutive year of annual monitoring. Triennial monitoring shall be conducted in the same year as reduced triennial monitoring granted for VOCs in accordance with § 109.301(5)(iv)(B) (relating to general monitoring requirements). The first triennial sampling period shall be no later than 3 calendar years after the last calendar year in which the system sampled.

(iv) Tap sampling period under reduced monitoring. A water system that meets the criteria for reduced monitoring under this paragraph shall conduct lead and copper tap sampling between June 1 and September 30 unless the Department has approved a different sampling period in accordance with clause (A) or (B). Only systems on reduced monitoring may monitor during a tap sampling period that is shorter than the tap monitoring period.

(A) For a nontransient noncommunity water system that does not operate during the months of June through September and for which the period of normal operation when the highest levels of lead are most likely to occur is not known, the Department may approve, in writing, a different period for conducting lead and copper tap sampling for systems on annual or less frequent monitoring.

(I) The period may be no longer than 4 consecutive months, within 1 calendar year, and shall represent a time of normal operation when the highest levels of lead are most likely to occur.

(II) Systems that qualify for annual monitoring under this paragraph shall begin monitoring during the alternate sampling period approved by the Department in the calendar year immediately following the end of the second 6-month standard monitoring period.

(III) Systems that qualify for triennial monitoring under this paragraph shall continue to monitor during the alternate sampling period approved by the Department. Triennial monitoring shall be conducted in the same year as reduced triennial monitoring granted for VOCs in accordance with § 109.301(5)(iv)(B). The first triennial sampling period shall be no later than 3 calendar years after the last calendar year in which the system sampled.

(B) Systems that receive Department approval for an alternate tap sampling period under this subparagraph and have been sampling in the months of June through September shall complete their next tap sampling period no later than 21 months, if on annual monitoring, or no later than 45 months, if on triennial monitoring, following the end of the previous tap sampling period. Triennial

monitoring shall be conducted in the same year as reduced triennial monitoring granted for VOCs in accordance with § 109.301(5)(iv)(B).

(C) A water system with a waiver granted in accordance with subsection (k), that had been collecting samples during the months of June through September and receives Department approval to alter its tap sampling monitoring period in accordance with clause (A), shall collect its next round of samples during the last year of the 9-year cycle.

(3) *[Initial source water monitoring.* A system which exceeds either the lead or copper action level shall collect one source water sample from each entry point within 6 months after the end of the monitoring period in which the action level was exceeded. Monitoring is required only for the parameter for which the action level was exceeded] {Reserved}.

(4) Tap sampling protocol.

(i) Applicability. All sites shall be sampled in accordance with the sampling protocol specified in subparagraph (ii), unless it falls under one of the exceptions in clauses (A)—(C). Sites that have lead service lines shall also be sampled in accordance with the instructions in subparagraph (iii) and sites without lead service lines shall also be sampled in accordance with the instructions specified in subparagraph (iv). Exceptions include the following:

(A) Sites where samples cannot meet the minimum stagnation time as specified in the sample site plan under § 109.1109(c)(1)(viii).

(B) Follow-up samples collected as part of a Distribution System and Site Assessment under § 109.1102(e).

(C) Consumer-requested samples collected in accordance with § 109.1104(a)(4.1) (relating to public education and notification, supplemental monitoring and mitigation requirements).

(ii) General tap sampling protocol for both lead and nonlead service line sites. The following procedure applies to all lead and copper tap samples collected, with additional instructions specified in subparagraphs (iii)—(v), as applicable.

(A) A water system may allow members of the public to collect samples when the following stipulations are met:

(I) The water system shall provide written instructions for collecting samples in accordance with this paragraph.

(II) Sampling instructions provided to members of the public may not direct the sample collector to remove or clean the aerator, or flush taps, prior to the

start of the minimum 6-hour stagnation period. For the purpose of this subclause, an aerator is defined as the device embedded in the water faucet to enhance air flow with the water stream and to prevent splashing.

(III) To protect members of the public from injury due to handling nitric acid, acidification of samples may be completed up to 14 days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the approved EPA method before the sample can be analyzed.

(B) Samples collected from residential housing shall be from the cold-water tap at an interior kitchen or bathroom sink. Samples collected in a nonresidential building shall be from an interior cold-water tap where water is typically drawn for human consumption.

(C) Samples shall be collected in 1-liter wide-mouth sample bottles that have a mouth with an inner diameter that measures at least 40 millimeters wide.

(D) Samples shall be collected after the water has stood motionless in the plumbing system and the service line of each sampling site for at least 6 hours without flushing the tap prior to sample collection. Sites approved by the Department that cannot meet the minimum stagnation time as specified in the sample site plan under § 109.1109(c)(1)(viii) do not need to comply with this clause.

(iii) *Sample sites with a lead service line.* First-liter and fifth-liter paired samples shall be collected at any site with a lead service line. In addition to the general protocol specified in subparagraph (ii), these samples shall be collected using the following methods:

(A) Systems shall collect tap water in five consecutively numbered sample bottles meeting the description specified in subparagraph (ii)(C).

(B) Systems shall fill the first bottle and then immediately fill each subsequently numbered bottle with the water running constantly during sample collection. The bottle numbered “1” is the first-liter sample and the bottle numbered “5” is the fifth-liter sample.

(iv) *Sample sites without a lead service line.* For sites without lead service lines, the first-liter sample shall be analyzed for lead and copper at sample sites where both contaminants are required to be monitored. At sample sites where only lead is required to be monitored, the first-liter sample may be analyzed for only lead.

(v) *Additional sample site requirements.* Systems shall sample at sites listed in the sample site plan developed under § 109.1109(c). Following completion of the first round of standard monitoring, systems shall prioritize sampling at the same sites

that were sampled in the previous tap sampling period. If a site no longer qualifies under the tiering criteria or if, for reasons beyond the control of the water system, access to a site cannot be gained to collect a tap sample, the system shall collect the tap sample from another site in its plan that meets the original tiering criteria, when another site exists. Systems shall report any change in sites from the previous tap sampling period and include an explanation of why sampling sites have changed, as required under § 109.1107(a)(2.1).

(b) *[Special lead and copper tap monitoring.*

(1) After completing initial monitoring and prior to initiation of construction or modification of corrosion control treatment facilities, a system may collect special lead and copper tap samples at its option.

(2) Special lead and copper tap monitoring shall be conducted in accordance with subsection (a), including compliance with the requirements resulting from an action level exceedance.

(3) If a medium or small water system meets the lead and copper action levels during two consecutive 6-month special monitoring periods, the system is deemed to have optimized corrosion control and may discontinue the compliance activities under § 109.1102(b)(2) and proceed directly to reduced monitoring in accordance with subsection (e).

(4) If a medium or small water system exceeds an action level during a monitoring period after discontinuing compliance activities under paragraph (3), the system shall complete the applicable compliance activities under § 109.1102(b)(2).

(5) If a system meets the lead action level during a special monitoring period, the system may discontinue public education in accordance with § 109.1104(a)(3) (relating to public education and notification)] {Reserved}.

(b.1) WQP monitoring. Water systems shall sample for WQPs in accordance with this subsection from taps that are representative of water quality throughout the distribution system and at sites selected in accordance with § 109.1109(c). Water systems with WQPs designated by the Department, large water systems, and small and medium water systems that exceed the lead or copper action level shall monitor WQPs in addition to lead and copper in accordance with this subsection. A system may be required to monitor WQPs as determined by the Department, including as provided in this subsection.

(1) Number of samples.

(i) Distribution system sample sites. A water system shall collect two sets of WQP distribution samples as defined in paragraphs (2) and (3) from the minimum number of sites listed in the following chart. Each sample set shall be collected from the same sample sites on different days. Each sample set shall be evenly spaced

throughout the monitoring period. Sample sites shall be specified in the sample site plan in accordance with § 109.1109(c).

<u>System size (number people served)</u>	<u>Minimum number of sites for WQPs</u>
<u>>100,000</u>	<u>25</u>
<u>10,001 to 100,000</u>	<u>10</u>
<u>3,301 to 10,000</u>	<u>3</u>
<u>501 to 3,300</u>	<u>2</u>
<u>101 to 500</u>	<u>1</u>
<u>≤100</u>	<u>1</u>

(A) The Department may, by written notice, require a public water system to conduct WQP monitoring at more than the number of sites specified in the chart in this subparagraph.

(B) Samples must be representative of all sources and purchased interconnections used throughout the monitoring period.

(C) Systems that collect distribution samples for WQPs from additional sites based on the Distribution System and Site Assessment requirements in § 109.1102(e) shall add those sites to the minimum number of sites listed in the chart in this subparagraph, not to exceed two times the minimum number of sites.

(ii) Entry point samples.

(A) Water systems without installed or reoptimized OCCT and without Department designated OWQPs shall collect at least two sample sets of applicable WQPs at each entry point on different days during each monitoring period specified in paragraph (2).

(B) Water systems with OCCT or reoptimized OCCT or Department designated OWQPs shall collect at least one sample set of applicable WQPs at each entry point at least once per calendar week that the entry point is in operation.

(2) Initial WQP monitoring. This paragraph does not apply to a water system that has Department designated WQPs for OCCT. A system that exceeds the lead or copper action level shall continue to monitor for WQPs as specified in paragraph (3), while reoptimizing OCCT. Water systems shall collect two sample sets from each location in the distribution system at the number of sites specified in paragraph (1)(i) and at each entry point as specified in paragraph (1)(ii)(A). Initial WQP monitoring shall begin as follows:

(i) A large water system without CCT shall monitor for WQPs during the first two consecutive 6-month tap monitoring periods, beginning no later than January 1 of the calendar year after the system either becomes a large water system, or exceeds

the lead PQL. Until beginning monitoring under paragraph (3), these systems shall continue 6-month monitoring as follows:

(A) Monitor for pH and alkalinity at sites in the distribution system.

(B) Monitor for the following parameters at each entry point:

(I) pH.

(II) Alkalinity, when adjusted as part of treatment.

(III) Orthophosphate (as PO₄), when an inhibitor containing an orthophosphate compound is used.

(IV) Silica, when an inhibitor containing a silicate compound is used.

(V) When taking a measurement under subclauses (II)—(IV), record the dosage rate of the applicable chemicals used.

(ii) A medium water system without CCT that exceeds the lead or copper action level shall monitor for WQPs for two consecutive 6-month monitoring periods, beginning the month following the end of the tap monitoring period in which the action level exceedance occurred. These systems shall continue 6-month monitoring as listed in clauses (A) and (B) unless the system qualifies to cease completion of the treatment steps in accordance with § 109.1102(b)(5.1) or until the system begins monitoring under paragraph (3).

(A) Monitor for pH and alkalinity at sites in the distribution system.

(B) At each entry point, monitor for the parameters listed in subparagraph (i)(B)(I)—(V).

(iii) A small water system that exceeds the lead or copper action level shall monitor for WQPs for two consecutive 6-month monitoring periods, beginning the month following the end of the tap monitoring period in which the action level exceedance occurred. These systems shall continue 6-month monitoring as listed in clauses (A) and (B) unless the system qualifies to cease completion of the treatment steps in accordance with § 109.1102(d) or until the system begins monitoring under paragraph (3).

(A) Monitor for pH and alkalinity at sites in the distribution system.

(B) At each entry point, monitor for the parameters listed in subparagraph (i)(B)(I)—(V).

(3) Monitoring after installation of OCCT or reoptimized OCCT. A water system that installs or modifies OCCT in accordance with § 109.1102(b)(2.1) or (2.2) and is required to conduct follow-up monitoring for lead or copper in accordance with § 109.1102(b)(2.1)(v) or (2.2)(v) shall monitor WQPs in accordance with this paragraph.

(i) Monitor WQPs in accordance with subparagraph (ii) until the Department designates new WQP values for OCCT.

(ii) The WQPs shall be measured as follows:

(A) A sample set, which includes the following WQPs, shall be taken in the distribution system at a regular frequency throughout the 6-month monitoring period to reflect seasonal variability at the minimum number of sites specified in paragraph (1)(i):

(I) pH.

(II) Alkalinity, when adjusted as part of treatment.

(III) Orthophosphate (as PO₄), when an inhibitor containing an orthophosphate compound is used.

(IV) Silica, when an inhibitor containing a silicate compound is used.

(B) A sample set, which includes the following WQPs, shall be measured at each entry point in accordance with paragraph (1)(ii)(B):

(I) pH.

(II) Alkalinity, when adjusted as part of treatment.

(III) Orthophosphate (as PO₄), when an inhibitor containing an orthophosphate compound is used.

(IV) Silica, when an inhibitor containing a silicate compound is used.

(V) When taking a measurement under subclauses (II)—(IV) also record the dosage rate of the chemicals used.

(iii) The Department may require small water systems with CCT for which the Department has not designated OWQPs that do not exceed the lead action level or copper action level to conduct WQP monitoring as described in this subsection or the Department may develop its own WQP monitoring structure for these systems.

(4) Monitoring after the Department designates OWQPs for OCCT. A system shall monitor at a regular frequency throughout the monitoring period in accordance with §

109.1109(c)(2)(i) and (ii) following the Department's designation of OCCT OWQPs under § 109.1102(b)(2.1) or (2.2).

(i) Water system shall measure the applicable WQPs specified in paragraph (3)(ii) in the distribution system during each monitoring period at the number of sites specified in paragraph (1)(i) and at each entry point at least once every week.

(ii) Beginning the next 6-month monitoring period that starts on January 1 or July 1 following the Department's designation of OCCT WQPs, the results of the monitoring conducted under this paragraph will be used to determine compliance with Department designated WQPs as specified in § 109.1102(b)(2.1)(vii) or (2.2)(vii).

(5) *Reduced monitoring.* Reduced monitoring does not apply to an entry point. All water systems that maintain the range of values for WQPs reflecting OCCT designated by the Department under § 109.1102(b)(3.1)(vi) and do not exceed the lead or copper action level in either of the two consecutive 6-month monitoring periods under paragraph (4) may reduce monitoring for WQPs as follows:

(i) *Number of sites.* Collect two sample sets, as defined in paragraph (3), from each site in the distribution system at the reduced minimum number of sites specified in the following chart during each 6-month monitoring period. The samples shall be collected at a regular frequency throughout the 6-month monitoring period to reflect seasonal variability.

<u><i>System size (number people served)</i></u>	<u><i>Minimum number of sites for WQPs</i></u>
<u>>100,000</u>	<u>10</u>
<u>10,001-100,000</u>	<u>7</u>
<u>3,301 to 10,000</u>	<u>3</u>
<u>501 to 3,300</u>	<u>2</u>
<u>101 to 500</u>	<u>1</u>
<u>≤100</u>	<u>1</u>

(ii) *Additional sites.* Systems that collect samples from additional sites based on the Distribution System and Site Assessment requirements in § 109.1102(e) shall continue to sample at the minimum number of sites listed in paragraph (1)(i), not to exceed two times the minimum number of sites.

(iii) *Monitoring frequency.*

(A) A water system that maintains the range of values for the WQPs reflecting OCCT designated by the Department under § 109.1102(b)(3.1)(vi) and does not exceed the lead or copper action level during 3 consecutive years of monitoring may reduce the frequency with which it collects distribution system samples for applicable WQPs specified in paragraph (3)(ii)(A) from each of the minimum number of sites listed in subparagraph (i) from every 6 months to annually. This

sampling shall begin during the calendar year following the end of the monitoring period in which the 3rd consecutive year of 6-month monitoring occurs.

(B) A water system may reduce the frequency with which it collects distribution system samples for applicable WQPs specified in subparagraph (i) from every 6 months to annual if it demonstrates during two consecutive monitoring periods that its tap water lead level is less than or equal to the lead PQL, that its tap water copper level is less than or equal to the copper PQL as calculated in accordance with § 109.1102(a.1), and that it also has maintained the range of values for the WQPs reflecting OCCT designated by the Department under § 109.1102(b)(3.1)(vi).

(C) The water system shall collect samples at a regular frequency throughout the reduced monitoring period to reflect seasonal variability.

(6) WQP sample collection methods. WQP distribution and entry point samples shall be collected in accordance with the requirements specified in § 109.304 (relating to analytical requirements). In addition, WQP samples shall adhere to the following:

(i) The sample tap shall be properly flushed prior to collecting the sample.

(ii) Temperature and pH analyses shall be conducted as soon as possible but no more than 15 minutes after collection. Temperature and pH samples collected at distribution system sites shall be analyzed in the field.

(iii) If silica analyses are required, the sample shall be collected in a plastic container.

(iv) If a water supplier collects WQP distribution samples from the same location and at the same time as coliform and disinfectant residual samples collected under Subchapter C (relating to monitoring requirements), the sampling must be performed in the following order:

(A) Collect and analyze a sample for temperature and pH.

(B) Collect and analyze a sample for disinfectant residual.

(C) Collect the coliform sample.

(D) Collect samples for the remaining WQPs.

(c) [Follow-up monitoring after construction or modification of corrosion control treatment facilities. A system which completes construction or modification of corrosion control treatment facilities in accordance with § 109.1102(b)(2) shall conduct the applicable monitoring specified in this subsection. A system which exceeds the lead action level after

construction or modification of corrosion control treatment facilities shall begin lead service line replacement in accordance with § 109.1107(d) (relating to system management responsibilities).

(1) *Lead and copper tap monitoring.* A system shall monitor for lead and copper at the tap during each specified monitoring period at the number of sample sites specified in subsection (a)(1)(v).

(i) A large water system shall monitor during each of two consecutive 6-month monitoring periods beginning no later than January 1, 1997. Following completion of this monitoring, but no later than January 31, 1998, the water supplier shall submit a request for the Department to designate optimal corrosion control treatment performance requirements for the system. Upon approval of the request, the Department will designate water quality parameter performance requirements in accordance with § 109.1102(b)(5) or source water treatment performance requirements in accordance with § 109.1102(b)(4), or both. The water supplier may request, and the Department may designate, performance requirements before the system completes the monitoring for both monitoring periods if the system has never exceeded an action level and the system demonstrates in its request that optimal corrosion control treatment has been achieved. After the Department has designated performance requirements, the system shall monitor in accordance with subsection (d)(1).

(ii) A small or medium water system shall monitor during each of two consecutive 6-month monitoring periods beginning no later than 60 months from the end of the monitoring period in which the action level was exceeded. The water supplier shall submit within 30 days of the end of the second monitoring period a request for the Department to designate optimal corrosion control treatment performance requirements for the system. Upon approval of the request, the Department will designate water quality parameter performance requirements in accordance with § 109.1102(b)(5) or source water treatment performance requirements in accordance with § 109.1102(b)(4). A small or medium water system that does not exceed the lead and copper action levels during each of two consecutive 6-month monitoring periods may reduce the number of sample sites and reduce the frequency of sampling to once per year in accordance with subsection (e)(1)(i). Systems not eligible for reduced monitoring under subsection (e)(1) shall monitor in accordance with subsection (d)(1).

(2) *Water quality parameter monitoring.* A system shall monitor for the applicable water quality parameters specified in subparagraph (iii) in the distribution system during each specified monitoring period at the number of sites specified in subsection (a)(2)(ii) and at each entry point at least once every 2 weeks.

(i) A large water system shall measure the water quality parameters during each of the two consecutive 6-month monitoring periods in which the system conducts lead and copper tap monitoring under paragraph (1)(i).

(ii) A small or medium water system which is conducting lead and copper tap monitoring in accordance with paragraph (1)(ii) shall measure the water quality parameters during each 6-month monitoring period in which the system exceeds either the lead or copper action level. Distribution system monitoring shall be conducted once during the monitoring period and biweekly entry point monitoring shall continue as long as the system exceeds the action level.

(iii) The water quality parameters shall be measured as follows:

(A) At sites within the distribution system, two sets of samples taken on different days from the same sample sites for:

(I) pH.

(II) Alkalinity.

(III) Orthophosphate, when an inhibitor containing a phosphate compound is used.

(IV) Silica, when an inhibitor containing a silicate compound is used.

(V) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(B) At each entry point, one set of samples every 2 weeks for:

(I) pH.

(II) When alkalinity is adjusted as part of corrosion control treatment, a reading of the dosage rate of the chemical used to adjust the alkalinity, and the alkalinity concentration.

(III) When a corrosion inhibitor is used as part of corrosion control treatment, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica, whichever is applicable.

(3) *Source water monitoring.* A system which installs source water treatment under § 109.1102(b)(4) shall monitor the source water at source water treatment entry points for the parameters for which the source water treatment was installed. The system shall monitor source water during the two consecutive 6-month monitoring periods specified in paragraph (1). Other systems which exceed either the lead or copper action level while conducting lead and copper tap monitoring in accordance with paragraph (1) shall collect one source water sample from each entry point within 6 months after the end of the monitoring period in which the action level was exceeded for the parameters exceeding the action level] {Reserved}.

(d) *[Monitoring after performance requirements are established.* A system shall conduct the applicable monitoring under this subsection beginning no later than the next 6-month monitoring period that begins on January 1 or July 1 following the Department's designation of optimal corrosion control treatment water quality parameter performance requirements under § 109.1102(b)(5) or source water performance requirements under § 109.1102(b)(4). A system which exceeds the lead action level after construction or modification of corrosion control treatment facilities shall begin lead service line replacement in accordance with § 109.1107(d).

(1) *Lead and copper tap monitoring.* A system shall monitor for lead and copper at the tap during each monitoring period at the number of sample sites specified in subsection (a)(1)(v) until the system qualifies for reduced monitoring under subsection (e)(1).

(2) *Water quality parameter performance monitoring.* A system shall measure the applicable water quality parameters specified in subsection (c)(2)(iii) in the distribution system during each monitoring period at the number of sites specified in subsection (a)(2)(ii) and at each entry point at least once every 2 weeks. The results of this monitoring will be used by the Department in determining compliance with the water quality parameter performance requirements established under § 109.1102(b)(5). A system that is not in compliance with the water quality parameter performance requirements established under § 109.1102(b)(5) shall provide public notification in accordance with § 109.1104(c)(2).

(i) A large water system shall conduct the monitoring during each monitoring period until the system qualifies for reduced monitoring under subsection (e)(2).

(ii) A small or medium water system which is conducting lead and copper tap monitoring in accordance with paragraph (1), shall measure the water quality parameters during each 6-month monitoring period in which the system exceeds either the lead or copper action level. Distribution system monitoring shall be conducted at least once during the monitoring period and biweekly entry point monitoring shall continue as long as the system exceeds the action level.

(iii) A system is out of compliance with the requirements of § 109.1102(b)(5) for a 6-month period if it has excursions for any Department specified water quality parameter on more than any 9 days during the 6-month monitoring period. An excursion occurs whenever the daily value for one or more of the water quality parameters is below the minimum value or outside the range of values designated by the Department. The Department has the discretion to delete results of sampling errors from this calculation. Daily values are calculated as follows:

(A) On days when more than one sample for the water quality parameter is collected at a sampling location, the daily value shall be the average of all results collected during the day including continuous monitoring or grab samples, or both.

(B) On days when only one sample for the water quality parameter is collected at a sampling location, the daily value shall be the result of that sample.

(C) On days when no sample is collected for the water quality parameter at a sampling location, the daily value shall be the most recent calculated daily value for which a water quality parameter was sampled at a sample location.

(3) *Source water monitoring.* A system which is conducting lead and copper tap monitoring in accordance with paragraph (1) shall monitor for the parameters exceeding the action level at each entry point within 6 months of the end of the monitoring period in which the action level was exceeded. For systems which have installed source water treatment, the results of this monitoring will be used by the Department in determining compliance with source water treatment performance requirements established under § 109.1102(b)(4). The Department may require additional source water monitoring if the Department determines that the additional monitoring is necessary to assure compliance with the source water treatment performance requirements. A system that is not in compliance with the source water treatment performance requirements established under § 109.1102 (b)(4) shall provide public notification in accordance with § 109.1104(c)(2)] {Reserved}.

(e) [*Reduced monitoring.*

(1) *Reduced lead and copper tap monitoring.* A system conducting reduced lead and copper tap monitoring shall collect one sample from the number of sample sites listed in the following column.

<i>System size (# of people served)</i>	<i># of Sample Sites</i>
> 100,000...	50
10,001 to 100,000...	30
3,301 to 10,000...	20
501 to 3,300...	10
500 or fewer...	5

(i) *Annual lead and copper tap monitoring.*

(A) A small or medium water system that does not exceed the lead and copper action levels during each of two consecutive 6-month monitoring periods or a system which has optimized corrosion control treatment under § 109.1102(b)(1)(ii) may reduce the number of sample sites and reduce the frequency of sampling to once per year.

(B) A system that has installed or modified corrosion control treatment facilities in accordance with § 109.1102(b)(2) may reduce the number of lead and copper sample sites and reduce the frequency of monitoring to once per year if the following conditions are met:

(I) The system does not exceed the lead and copper action levels during each of two consecutive 6-month monitoring periods.

(II) The system maintains the range of values for the optimal corrosion control treatment water quality parameter performance requirements specified by the Department under § 109.1102(b)(5) during each of two consecutive 6-month monitoring periods in accordance with subsection (d)(2).

(C) Annual monitoring shall begin during the calendar year immediately following the end of the second consecutive 6-month monitoring period.

(ii) *Triennial lead and copper tap monitoring.*

(A) A small or medium water system that does not exceed the lead and copper action levels during 3 consecutive years of monitoring, including initial monitoring, may reduce the frequency of monitoring for lead and copper to once every 3 years.

(B) A system that has installed or modified corrosion control treatment facilities in accordance with § 109.1102(b)(2) may reduce the frequency of lead and copper tap monitoring from annually to once every 3 years if the following conditions are met:

(I) The system does not exceed the lead and copper action levels during 3 consecutive years of 6-month or annual monitoring.

(II) The system maintains the range of values for the optimal corrosion control treatment water quality parameter performance requirements specified by the Department under § 109.1102(b)(5) during 3 consecutive years of monitoring.

(C) Triennial monitoring shall be conducted during the last year of each 3-year compliance period—for example 1998, 2001, 2004 and so forth.

(D) A system that demonstrates for two consecutive 6-month monitoring periods that the tap water lead level as determined under § 109.1102(a)(3) is less than or equal to 0.005 mg/L and the tap water copper level as determined under § 109.1102(a)(3) is less than 0.65 mg/L may reduce the number of samples in accordance with § 109.1103(e)(1) and reduce the frequency of sampling to once every 3 years.

(iii) *Sample sites and timing.* A system that reduces the number of sample sites and frequency of sampling shall collect samples from sample sites included in the pool of targeted sampling sites identified in subsection (g)(2). Systems sampling annually or

less frequently shall conduct the lead and copper tap sampling between June 1 and September 30. The Department may approve, in writing, a different period for conducting lead and copper tap monitoring sampling for systems on annual or less frequent monitoring. The period may be no longer than 4 consecutive months and shall represent a time of normal operation when the highest levels of lead are most likely to occur.

(2) *Reduced water quality parameter monitoring for large water systems.* A large water system conducting reduced water quality parameter monitoring shall collect two sets of distribution samples from the following reduced number of sample sites. The sets of samples shall be collected from the same sample sites on different days and analyzed for the applicable water quality parameters.

<i>System size (# of people served)</i>	<i># of Sample Sites</i>
> 100,000...	10
50,001 to 100,000...	7

(i) *Reduced sites.* A large water system that maintains the range of values for water quality parameter performance requirements reflecting optimal corrosion control treatment specified by the Department under § 109.1102(b)(5) during each of two consecutive 6-month monitoring periods conducted in accordance with subsection (d)(2) may collect distribution samples from the reduced number of sites during subsequent 6-month monitoring periods until the system qualifies for reduced frequency under subparagraph (ii). The system shall continue monitoring at each entry point as specified in subsection (d)(2).

(ii) *Reduced water quality parameter monitoring.*

(A) A large water system that maintains the range of values for water quality parameter performance requirements reflecting optimal corrosion control treatment specified by the Department under § 109.1102(b)(5) during 3 consecutive years of monitoring at the reduced number of sites under subparagraph (i) may reduce the frequency with which it collects sets of water quality parameter distribution samples from every 6 months to annually. Annual monitoring begins during the next calendar year. A system conducting annual sampling shall collect these sets of samples evenly throughout the year to reflect seasonal variability. The system shall continue monitoring at each entry point as specified in subsection (d)(2).

(B) A large water system may reduce the frequency with which it collects tap water samples for applicable water quality parameters specified in § 109.1102(b)(5) to every 3 years if it demonstrates during two consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the PQL for lead of 0.005 mg/L, that its tap water copper level at the 90th percentile is less than or equal to 0.65 mg/L, and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion

control treatment specified by the Department under § 109.1102(b)(5). Triennial monitoring shall be conducted during the last year of each 3-year compliance period—for example 1998, 2001, 2004 and so forth.

(3) *Reduced monitoring revocation.*

(i) *Reduced monitoring revocation for large water systems.* A large water system authorized to conduct reduced monitoring under this subsection that fails to meet the lead or copper action level during any 4-month monitoring period or that fails to operate within the range of performance requirements for the water quality parameters specified by the Department under § 109.1102(b)(5) on more than any 9 days in a 6-month period shall comply with the following:

(A) The water supplier shall resume lead and copper tap monitoring in accordance with subsection (d)(1).

(B) The water supplier shall resume water quality parameter distribution sampling in accordance with the number and frequency requirements specified in subsection (d)(2).

(I) A large system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in paragraph (2) after it has completed two subsequent consecutive 6-month rounds of monitoring that meet the criteria of paragraph (2)(i).

(II) A large system may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites specified in paragraph (2) after it demonstrates through subsequent rounds of monitoring that it meets the criteria of paragraph (2)(ii).

(C) If either the lead or copper action level is exceeded, the water supplier shall conduct source water monitoring in accordance with subsection (d)(3). Monitoring is required only for the parameter for which the action level was exceeded. For systems on annual or less frequent monitoring, the end of the monitoring period is September 30 of the calendar year in which sampling occurs, or, if the Department has designated an alternate monitoring period, the end of the monitoring period is the last day of the 4-month period in which sampling occurs.

(ii) *Reduced monitoring revocation for small or medium water systems.* A small or medium water system authorized to conduct reduced lead and copper tap monitoring under this subsection that fails to meet the lead or copper action level during any 4-month monitoring period, or a small or medium system that has installed corrosion control treatment in compliance with § 109.1102(b)(2) and that fails to operate within the range of performance requirements for the water quality

parameters specified by the Department under § 109.1102(b)(5) on more than any 9 days in a 6-month period, shall comply with the following:

(A) The water supplier shall conduct water quality parameter monitoring during the monitoring period in which the action level is exceeded. The start of the 6-month monitoring period for the water quality parameter monitoring required under this clause must coincide with the start of the annual or triennial tap monitoring period in which the action level was exceeded.

(I) If the system has installed corrosion control treatment in compliance with § 109.1102(b)(2), water quality parameter monitoring shall be conducted in accordance with subsection (c)(2).

(II) If the system has not installed corrosion control treatment, water quality parameter monitoring shall be conducted in accordance with subsection (a)(2) and the system shall conduct corrosion control treatment activities in accordance with § 109.1102(b)(1)(i).

(B) The water supplier shall collect one source water sample from each entry point within 6 months of the end of the monitoring period in which the action level was exceeded. Monitoring is required only for the parameter for which the action level was exceeded. For systems on annual or less frequent monitoring, the end of the monitoring period is September 30 of the calendar year in which sampling occurs, or, if the Department has designated an alternate monitoring period, the end of the monitoring period is the last day of the 4-month period in which sampling occurs.

(C) If a system has installed corrosion control treatment in compliance with § 109.1102(b)(2), the water supplier shall resume lead and copper tap monitoring in accordance with subsection (d)(1)] {Reserved}.

(f) *Additional monitoring by systems.* [The results of monitoring conducted at specified sites during specified monitoring periods in addition to the minimum requirements of this section shall be considered by the system and the Department in making determinations—such as calculating the 90th percentile lead or copper action level or determining concentrations of water quality parameters— under this subchapter.]

(1) Additional lead and copper tap monitoring.

(i) The results of any monitoring conducted in addition to the minimum requirements of this subsection, including customer-requested samples, shall be evaluated by the water system and the Department if the samples were collected within the tap sampling period and using the appropriate tap sampling protocol.

(ii) If multiple samples from the same site, taken during the same tap sampling period, meet the requirements of this subsection, only the highest value from each

site may be considered when calculating the 90th percentile in accordance with § 109.1102(a.1) except for systems as defined in § 109.1109(c)(1)(vi).

(iii) Water systems sampling at one or more Tier 1 or Tier 2 sites in a tap sampling period that are unable to collect the minimum number of samples required in this subsection from Tier 1 or 2 sites shall consider the lead and copper values from the next highest tier available in accordance with § 109.1109(c). If a water system has sufficient samples after including the samples from the next highest available tier to meet the minimum number of samples required in this subsection, the system may not consider additional samples from other available lower tiers. The 90th percentile lead and copper values shall be calculated in accordance with § 109.1102(a.1)(3). Systems shall submit all additional sampling results to the Department that were not used in the 90th percentile calculation.

(2) Additional WQP monitoring. The results of any monitoring conducted at WQP sites in addition to the minimum requirements of subsection (b.1) shall be evaluated by the water system and the Department in determining compliance with WQPs under § 109.1102(b)(2.1)(vii).

(3) Additional samples required for Distribution System and Site Assessment.

(i) Follow-up lead samples collected for Distribution System and Site Assessment under § 109.1102(e)(2) may not be included in the 90th percentile calculation.

(ii) Systems that collect distribution system samples for WQPs from additional sites based on the Distribution System and Site Assessment requirements shall add those sites to the minimum number of sites listed in subsection (b.1)(1)(i) not to exceed two times the minimum number of standard sites.

(f.1) Entry point monitoring for lead and copper.

(1) Sample location, collection methods and number of samples.

(i) A water system required to conduct lead and copper monitoring at the entry point under this subsection shall collect lead and copper entry point samples in accordance with the following requirements regarding sample location, collection methods and number of samples:

(A) Systems shall take a minimum of one sample at every entry point to the distribution system that is representative of each source after treatment.

(B) If a system draws water from more than one source and the sources are combined prior to distribution, the system shall sample at the entry point where water is representative of all sources being used during normal operating conditions.

(ii) The Department may reduce the total number of samples which must be analyzed by allowing the use of compositing. Compositing of samples shall be done by certified laboratory personnel. Composite samples from a maximum of five samples are allowed, provided that if the lead concentration in the composite sample is greater than or equal to 0.001 mg/L or the copper concentration is greater than or equal to 0.160 mg/L, then the following apply:

(A) Collect and analyze a follow-up sample within 14 days at each entry point included in the composite.

(B) If duplicates or sufficient quantities of the original samples from each sampling point used in the composite are available, the system may use these instead of collecting and analyzing a follow-up sample.

(2) Monitoring frequency after system exceeds tap water action level. A water system with a 90th percentile sample result that exceeds the lead or copper action level shall collect one sample from each entry point to the distribution system no later than 6 months after the end of the tap sampling period during which the lead or copper action level was exceeded. For tap sampling periods that are annual or less frequent, the end of the tap sampling period is September 30 of the calendar year in which the sampling occurs, or if the Department has established an alternate monitoring period, the last day of that period.

(3) Monitoring frequency after installation of source water treatment or addition of a new source.

(i) A system that installs source water treatment under § 109.1102(b)(4) shall collect one sample from each entry point to the distribution system during two consecutive 6-month monitoring periods by the deadline specified in § 109.1102(b)(4)(i).

(ii) A system that adds a new source shall collect one sample from each entry point to the distribution system every 6 months for a minimum of two consecutive periods until one of the following is met:

(A) Entry point samples demonstrate that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Department in § 109.1102(b)(4)(v).

(B) The Department determines that source water treatment is not needed.

(4) Monitoring frequency after the Department specifies maximum permissible lead and copper concentrations at the entry point.

(i) A system shall begin monitoring at the frequency specified in clauses (A) and (B) after the Department specifies maximum permissible lead and copper concentrations under § 109.1102(b)(4)(v).

(A) A water system using only groundwater shall collect samples once during the 3-year compliance period in effect when the Department specifies maximum permissible lead and copper concentrations at the entry point. These systems shall collect samples once during the last year of each subsequent 3-year compliance period.

(B) A water system using surface water, or a combination of surface and ground water, shall collect samples once during each calendar year. The first annual monitoring period shall begin during the year in which the Department specifies maximum permissible lead and copper concentrations at the entry point.

(ii) A system is not required to continue entry point sampling for lead or copper, or both, if the system meets the action level for the specific contaminant in tap water samples during the entire entry point sampling period applicable to the system under subparagraph (i).

(5) *Reduced monitoring.*

(i) A water system may reduce the frequency for lead and copper entry point monitoring to once during each 9-year compliance cycle provided that the system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Department in § 109.1102(b)(4)(v) during at least three consecutive monitoring periods of sampling conducted under paragraph (4)(i).

(ii) Reduced monitoring samples shall be collected during the last year of each 9-year compliance cycle.

(iii) A water system that uses a new source of water is not eligible for reduced monitoring for lead or copper, or both, until concentrations in samples collected from the new source during three consecutive monitoring periods are below the maximum permissible lead and copper concentrations specified by the Department under § 109.1102(b)(4)(v).

(g) *[Sample site location plan.* The water supplier shall complete a sample site location plan which includes a materials evaluation of the distribution system, lead and copper tap sample site locations, water quality parameter sample site locations and certification that proper sampling procedures are used. The water supplier shall complete the steps in paragraphs (1)—(3) by the applicable date for commencement of lead and copper tap monitoring under subsection (a)(1) and the step in paragraph (4) following completion of the monitoring. The water supplier shall keep the sample site location plan on record and submit the plan to the Department in accordance with § 109.1107(a)(1).

(1) *Materials evaluation.* A system shall review the following sources of information in order to identify a sufficient number of lead and copper tap sampling sites.

(i) Plumbing codes, permits and records in the files of the building departments of each municipality served by the system which indicate the plumbing materials that are installed within structures connected to the distribution system.

(ii) Inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system.

(iii) Existing water quality information, which includes the results of prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(2) *Lead and copper tap sample site selection.* Lead and copper tap sampling sites are classified as tier 1, tier 2 or tier 3. Tier 1 sites are the highest priority sample sites.

(i) *Site selection for community water systems.* The water supplier shall select all tier 1 sample site locations, if possible. A community water system with an insufficient number of tier 1 sampling sites shall complete its sampling pool with tier 2 sites. Tier 3 sites shall be used to complete the sampling pool if the number of tier 1 and tier 2 sites is insufficient. If the system has an insufficient number of tier 1, tier 2 and tier 3 sites, the water supplier shall sample from other representative sites throughout the distribution system in which the plumbing materials used at the site would be commonly found at other sites served by the system.

(A) Tier 1 sampling sites shall consist of single family structures that have one or more of the following:

(I) Copper pipes with lead solder installed after 1982.

(II) Lead pipes.

(III) Lead service line.

(B) When multiple-family residences comprise at least 20% of the structures served by a water system, the system may consider a representative number of these types of structures as tier 1 sites in its sampling pool, if they meet the other criteria in clause (A).

(C) Tier 2 sampling sites shall consist of buildings, including multifamily residences, that have one or more of the following:

(I) Copper pipes with lead solder installed after 1982.

(II) Lead pipes.

(III) Lead service line.

(D) Tier 3 sampling sites shall consist of single family structures, constructed as a single family residence and currently used as either a residence or business, that contain copper pipes with lead solder installed before 1983.

(ii) *Site selection for nontransient noncommunity water systems.*

(A) The water supplier shall select all tier 1 sample site locations, if possible. A nontransient noncommunity water system with an insufficient number of tier 1 sampling sites shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the system shall use representative sites throughout the distribution system in which the plumbing materials used at the site would be commonly found at other sites served by the system.

(B) Tier 1 sampling sites shall consist of buildings that have one or more of the following:

(I) Copper pipes with lead solder installed after 1982.

(II) Lead pipes.

(III) Lead service line.

(iii) *Site selection for community and nontransient noncommunity water systems that have fewer than five taps.* A system that has fewer than five taps that can be used for drinking water that meet the sample site criteria specified in this paragraph shall collect at least one sample from each tap and then collect additional samples from those taps on different days during the monitoring period to meet the required number of sites.

(iv) *Site selection for community and nontransient noncommunity facilities that operate continuously.* A community water system meeting the conditions in § 109.1104(a)(2)(i)(I), or a nontransient noncommunity water system, that operates continuously and that has an insufficient number of taps commonly used for drinking water to take each first-draw sample from a different tap, may apply to the Department, in writing, to substitute nonfirst-draw samples. Upon approval by the Department in writing, these systems shall collect as many first-draw samples as possible from taps that can be used for drinking water that meet the sample site criteria specified in this paragraph. The remaining samples shall be collected at the times and from the sites identified with the longest standing times. Nonfirst-draw samples must be 1-liter in volume and collected from an interior tap that is typically used to provide water for human consumption.

(v) *Sample sites with lead service lines.* A system that has a distribution system containing lead service lines shall draw 50% of the samples it collects during each monitoring period from sites that contain lead pipes or copper pipes with lead solder, and 50% of the samples it collects during each monitoring period from sites served by a lead service line. If a water system cannot identify a sufficient number of sampling sites served by a lead service line, the system shall collect first draw samples from each site identified as being served by a lead service line.

(vi) *Sample sites with point-of-use or point-of-entry devices.* Samples may not be taken from taps that have point-of-use or sites that have point-of-entry treatment devices designed to remove inorganic contaminants.

(3) *Water quality parameter sample site selection.*

(i) *Water quality parameter distribution samples.* Water quality parameter distribution samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system and seasonal variability. Distribution sampling is not required to be conducted at sites targeted for lead and copper tap sampling under subsection (a)(1). Systems may find it convenient to conduct distribution sampling for water quality parameters at sites used for coliform sampling under § 109.303(a) (relating to sampling requirements).

(ii) *Water quality parameter entry point samples.* Samples collected at entry points shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at an entry point during periods of normal operating conditions—that is, when water is representative of all sources being used.

(4) *Sample procedure certification.* A water supplier shall certify that sample collection methods identified in subsection (h)(1) were used to collect lead and copper tap samples. This certification shall be included in the sample site location plan. When a water supplier allows the residents to collect the samples, a copy of the material distributed to residents explaining the proper collection methods, and a list of the residents who performed sampling shall be included in the sample site location plan] {Reserved}.

(h) *[Sample collection methods.*

(1) Lead and copper tap samples. Tap samples for lead and copper collected in accordance with this subchapter, with the exception of lead service line samples collected under § 109.1107(d)(3) and tap monitoring samples collected under § 109.1103(g)(2)(iv), shall be first-draw samples and the following sample collection methods shall be used:

(i) Each first-draw tap sample for lead and copper shall be 1 liter in volume and have stood motionless in the plumbing system of each sampling site for at least 6 hours.

(ii) First-draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First-draw samples from a nonresidential building shall be collected at an interior tap from which water is typically drawn for drinking.

(iii) First-draw samples may be collected by the water supplier or the water supplier may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph.

(iv) If a water supplier allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(v) Acidification of first-draw samples may be done up to 14 days after the sample is collected. After acidification, the sample shall stand in the original container for the time specified according to the approved EPA method before analyzing the sample.

(vi) For subsequent monitoring, the water supplier shall make every reasonable effort to collect each first-draw tap sample from the same sampling site from which it collected a previous sample. If the water supplier is unable to use an original sampling site, the system may collect the tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within reasonable proximity to the original site.

(2) *Water quality parameter distribution samples.* Water quality parameter distribution samples shall be collected using the following methods:

(i) Samples shall be fully flushed.

(ii) If a water supplier collects the water quality parameter distribution samples from the same location as coliform and disinfectant residual samples, the water quality parameter samples shall be collected in the following manner:

(A) Fully flush the tap and collect the coliform sample.

(B) Collect a sample to measure disinfectant residual.

(C) Collect and analyze the sample for temperature and pH.

(D) Collect the samples for the other water quality parameters.

(iii) Water quality parameter samples require two 500-ml samples to be collected. Two sample containers are required because calcium analysis shall be performed using a separate sample container in order to acidify the sample prior to measurement.

(iv) Temperature analyses shall be conducted in the field to insure accuracy.

(v) pH measurements shall be conducted in the field and made with a pH electrode and meter within 15 minutes of sample collection. The meter shall be capable of measuring to 1/10 of a unit.

(vi) If silica analyses are required, the sample shall be collected in a plastic container.

(3) *Water quality parameter entry point samples.* Water quality parameter entry point samples shall be collected using the methods identified in paragraph (2), except subparagraphs (ii) and (iii).

(4) *Source water samples.* Lead and copper source water samples shall be collected in accordance with the requirements regarding sample location, number of samples and collection methods specified in 40 CFR 141.88(a)(1) (relating to monitoring requirements for lead and copper in source water).

(5) *Lead service line samples.* Each lead service line sample shall be 1 liter in volume and have stood motionless in the lead service line for at least 6 hours. Lead service line samples shall be collected in one of the following ways:

(i) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line.

(ii) Tapping directly into the lead service line.

(iii) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line] {Reserved}.

(i) *Analytical methods.* [Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica and temperature shall] Analyses of lead, copper and WQP samples shall be conducted in accordance with [40 CFR 141.89 (relating to analytical methods) which is incorporated by reference] § 109.304. The Department will [only] consider only those lead and copper samples analyzed by a laboratory certified by the Department. Measurements for [water quality parameters] WQPs may be performed by a person meeting the [operator certification requirements of § 109.1107(c)] requirements of § 109.704 (relating to operator certification).

(j) *Invalidation of lead or copper tap water samples.* A sample invalidated under this **[paragraph] subsection** does not count toward determining lead or copper 90th percentile levels under § 109.1102(a) or toward meeting the minimum monitoring requirements of this section. **A water system shall report the results of all samples to the Department and submit all supporting documentation for samples the system believes should be invalidated.** The Department's decision and rationale for invalidating a sample **[must] will** be documented in writing.

(1) The Department may invalidate a lead or copper tap water sample if at least one of the following conditions is met:

(i) The laboratory establishes that improper sample analysis caused erroneous results.

(ii) The Department determines that the sample was taken from a site that did not meet the site selection criteria **[of this section] specified in § 109.1109(c)(1).**

(iii) The sample container was damaged in transit.

(iv) There is substantial reason to believe that the sample was subject to tampering.

(v) The Department determines the sample was not collected in accordance with the tap sampling protocol specified in subsection (a)(4)(ii). However, if a system allows members of the public to sample, the system may not challenge the accuracy of the sample results based on alleged sample collection errors or request that a sample be invalidated based on improper sample collection.

(2) [The system shall report to the Department the results of all samples, along with supporting documentation for samples the system believes should be invalidated] **{Reserved}.**

(2.1) The Department will not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.

(3) A system shall collect replacement samples for any samples invalidated under this subsection if, after the invalidation of one or more samples, the system has too few samples to meet the minimum monitoring requirements of this section.

(i) Replacement samples shall be taken as soon as possible but no later than 20 days after the Department invalidates the sample or by the end of the applicable **[monitoring] tap sampling** period, whichever occurs later.

(ii) Replacement samples taken after the end of the applicable **[monitoring period shall] tap sampling period may** not be used to meet the monitoring requirements of a subsequent monitoring period.

(iii) Replacement samples shall be taken at the same locations as the invalidated samples **[or, if that is not possible, at locations other than those already used for sampling during the monitoring period]. If the sample was invalidated under paragraph (1)(ii), or the system cannot gain access for sampling, then the replacement samples shall be taken at locations that meet the site selection criteria. Locations already used for sampling during the monitoring period may not be reused.**

(k) *Monitoring waivers for [small] systems serving 3,300 or fewer persons.* A [small] water system **serving 3,300 or fewer persons** that meets the criteria of this subsection may apply to the Department to reduce the frequency of monitoring for lead **[and] or copper, or both,** under this section to once every 9 years if it meets all of the materials criteria specified in paragraph (1) and all of the monitoring criteria specified in paragraph (2). **[A system that meets the criteria in paragraphs (1) and (2) only for lead, or only for copper, may apply to the Department for a waiver to reduce the frequency of tap water monitoring to once every 9 years for that contaminant only.] Systems meeting only the criteria for lead may apply for a lead waiver; systems meeting only the criteria for copper may apply for a copper waiver; and systems meeting the criteria for both lead and copper may apply for a full waiver.**

(1) *Materials criteria.* The system shall demonstrate that its distribution system, service lines and **[all drinking water plumbing, including plumbing conveying drinking water] premise plumbing** within all residences and buildings connected to the system, are free of lead-containing materials or copper-containing materials or both as follows:

(i) *Lead.* To qualify for a waiver of tap monitoring requirements for lead, the system shall provide certification and supporting documentation to the Department that the system is free of all lead-containing materials as follows:

(A) It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers.

(B) It is free of lead service lines, **GRR service lines, lead connectors,** lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless the fittings and fixtures meet the specifications of **[any] the most recent** standard established under **[42 U.S.C.A. § 300g-6(e) (relating to plumbing fittings and fixtures)] section 1417 of the Federal act (42 U.S.C. § 300g-6).**

(ii) *Copper.* To qualify for a waiver of the tap water monitoring requirements for copper, the system shall provide certification and supporting documentation to the Department that the system contains no copper **[pipes] premise plumbing** or copper service lines.

(2) *Monitoring criteria for waiver issuance.* The system shall have completed at least one 6-month round of **[routine] standard** tap water monitoring for lead and copper at sites approved by the Department and from the number of sites as required under subsection **[(a)(1)(v)] (a)(1.1)**. The system shall demonstrate that the 90th percentile levels for all rounds of monitoring conducted since the system became free of all lead-containing or copper-containing materials, as appropriate, meet the following criteria:

(i) *Lead levels.* To qualify for a waiver of the lead tap monitoring, the system shall demonstrate that the 90th percentile lead level does not exceed **[0.005 mg/L] the lead PQL**.

(ii) *Copper levels.* To qualify for a waiver of the copper tap monitoring, the system shall demonstrate that the 90th percentile copper level does not exceed **[0.65 mg/L] the copper PQL**.

(3) *Department approval of waiver application.* The Department will notify the system of its waiver determination, in writing, setting forth the basis of the decision and any condition of the waiver. **As a condition of a waiver, the Department may require the system to perform specific activities to avoid lead or copper concentrations of concern in tap water.** A system shall continue monitoring for lead and copper at the tap as required by this section until it receives written notification from the Department that the waiver has been approved.

(4) *Monitoring frequency for systems with waivers.*

(i) A system shall conduct tap water monitoring for the contaminant **or contaminants** waived in accordance with subsection **[(e)(1)(iii)] (a)(2.1)(i)** at the reduced number of sites identified in subsection **[(e)] (a)(2.1)** at least once every 9 years and provide the materials certification specified in paragraph (1) for the **contaminant or** contaminants waived along with the monitoring results. Monitoring shall be conducted during the last year of each 9-year compliance cycle**—for example 2010, 2019, 2028 and so forth**.

(ii) A system shall continue to monitor for any nonwaived contaminants in accordance with **[subsection (a)(1)] this section**, as appropriate.

(iii) A system with a waiver shall notify the Department, in writing, within 60 days after becoming aware that it is no longer free of lead-containing or copper-containing materials, as appropriate**], as a result of new construction or repair**.

(iv) A system with a waiver shall notify the Department, in writing, no later than 6 months prior to the addition of a new source or change in treatment. The Department may add or modify waiver conditions, if any modifications are deemed necessary to address source or treatment changes at the system.

(5) *Continued eligibility.* If the system continues to satisfy the requirements of paragraph (4), the waiver will be renewed automatically unless any of the conditions listed in **[subparagraph] subparagraphs** (i)—(iii) occurs. A system whose waiver has been revoked may reapply for a waiver when it again meets the appropriate materials and monitoring criteria of paragraphs (1) and (2).

(i) A system with a lead waiver no longer satisfies the materials criteria of paragraph (1)(i) or has a 90th percentile lead level greater than **[0.005 mg/L] the lead PQL**.

(ii) A system with a copper waiver no longer satisfies the materials criteria of **[subsection (k)(1)(ii)] paragraph (1)(ii)** or has a 90th percentile copper level greater than 0.65 mg/L.

(iii) The Department notifies the system, in writing, that the waiver has been revoked, **setting forth the basis of its decision.**

(6) *Requirements following waiver revocation.* A water system whose waiver has been revoked is subject to the **[corrosion control treatment, and lead and copper tap water monitoring requirements as follows] following:**

(i) If the system exceeds the lead or copper**[, or both,]** action level, the system shall implement **[corrosion control treatment] or reoptimize OCCT** in accordance with § 109.1102(b), and any other applicable requirements of this subchapter.

(ii) If the system **[meets both the lead and copper action levels] is at or below both the lead and copper action levels,** the system shall monitor for lead and copper **[at the tap] no less frequently than once every 3 years [in accordance with the frequency, timing and the reduced number of sample sites specified in subsection (e)] at the reduced number of sample sites specified in subsection (a)(2.1).**

(7) *Pre-existing waivers.* **A system whose waiver was approved by the Department in writing prior to November 1, 2027, is still in effect if the system can demonstrate the following:**

(i) The system is free of lead-containing and copper-containing materials in accordance with paragraph (1).

(ii) The 90th percentile lead levels and 90th percentile copper levels meet the criteria specified in paragraph (2).

(iii) The system meets the continued eligibility criteria listed in paragraph (5).

(l) Monitoring for lead in schools and child care facilities.

(1) General requirements. This subsection applies to all community water systems that serve schools or child care facilities, as defined in § 109.1 (relating to definitions), unless both the criteria in subparagraphs (i) and (ii) are met. The requirements of this subsection do not apply to a school or child care facility that is regulated as a stand-alone public water system.

(i) The school or child care facility was constructed or had full plumbing replacements on or after January 1, 2014, which is the effective date of the definition of “lead free” in section 1417 of the Federal act (42 U.S.C. § 300g-6), as amended by the Reduction of Lead in Drinking Water Act (Public Law 111–380, 124 Stat. 4131).

(ii) The school or child care facilities are not served by a lead, GRR or a lead status unknown service line.

(2) *List of schools and child care facilities.* By November 1, 2027, each community water system shall compile a list of all schools and child care facilities served by the system that meet the criteria in paragraph (1). The list shall be submitted to the Department in accordance with § 109.1107(a)(5.1)(i).

(i) The water system shall make a good faith effort to develop the list, which may include reviewing customer records and requesting lists of schools and child care facilities from the appropriate licensing agency.

(ii) At least once every 5 years, the water system shall submit a revised list to the Department or confirm that there have been no changes to the list.

(3) *Public education to schools and child care facilities.*

(i) Each community water system shall contact all schools and child care facilities identified by the system in paragraph (2) to provide the following:

(A) Information about health risks from lead in drinking water at least once every calendar year beginning November 1, 2027. This language shall be consistent with the requirements of 40 CFR 141.85 (relating to public education and supplemental monitoring and mitigation requirements), which is incorporated by reference in § 109.1104(a).

(B) Prior to December 31, 2032, notification that the elementary schools and child care facilities are eligible for lead sampling by the water system in accordance with the frequency requirements in paragraph (4). The notification shall include:

(I) A proposed schedule for sampling at the facility.

(II) Information about sampling for lead in schools and child care facilities in accordance with the most recent EPA guidance.

(C) Prior to December 31, 2032, notification that the secondary schools may request lead sampling by the water system. The notification shall be on at least an annual basis and include:

(I) Information on how to request lead sampling at the facility.

(II) Information about sampling for lead in schools and child care facilities in accordance with the most recent EPA guidance.

(ii) Between January 1, 2033, and December 31, 2033, a community water system shall notify all schools and child care facilities identified in paragraph (2) that they may request lead sampling by the water system. The notification shall be in accordance with subparagraph (i)(C)(I) and (II).

(iii) Thirty days prior to any sampling event, a community water system shall provide schools and child care facilities with instructions to identify outlets for lead sampling and prepare for a sampling event.

(iv) If an elementary school or child care facility is nonresponsive or otherwise declines to participate in the monitoring or education requirements of this section, the community water system shall provide documentation to the Department in accordance with § 109.1107(a)(5.1)(ii)(D)(I)(-d-)-(f-). For the purposes of this subsection, a school or child care facility is nonresponsive after the community water system makes at least two separate outreach attempts to contact the facility to schedule sampling and does not receive any response on either attempt.

(4) Frequency of sampling at schools and child care facilities.

(i) Samples shall be collected from at least 20% of elementary schools served by the system and 20% of child care facilities served by the system per calendar year, or according to an alternate schedule approved by the Department, until all schools and child care facilities identified under paragraph (2) have been sampled, have declined to participate or are nonresponsive. A community water system may count a refusal or nonresponse from an elementary school or child care facility, according to paragraph (3)(iv), as part of the minimum 20% sampled per year.

(ii) All elementary schools and child care facilities shall be sampled at least once, have declined sampling or have been determined to be nonresponsive in accordance with paragraph (3)(iv) by December 31, 2032.

(iii) Between January 1, 2033, and December 31, 2033, community water systems shall sample at the request of an elementary school or child care facility in accordance with this paragraph except as follows:

(A) A water system is not required to sample more than 20% of the elementary schools and child care facilities identified in paragraph (2) in any given year.

(B) A water system is not required to sample an individual elementary school or child care facility more than once in any 5-year period.

(iv) When a community water system includes an elementary school or child care facility for the first time in an update to the list of schools and child care facilities reported to the Department, the community water system shall:

(A) Conduct public education at those elementary schools and child care facilities as described in paragraph (3)(i) at least once prior to conducting sampling in accordance with paragraph (4).

(B) Consider an elementary school or child care facility nonresponsive after the community water system makes at least two separate outreach attempts to contact the facility to schedule sampling and does not receive any response on either attempt.

(v) A community water system shall sample at the request of a secondary school in accordance with paragraph (5). A community water system is not required to sample more than 20% of the secondary schools identified under paragraph (2) in any given year. A community water system is not required to sample an individual secondary school more than once in the 5-year period.

(5) Lead sampling in schools and child care facilities.

(i) Community water systems shall collect five samples per school and two samples per child care facility at outlets typically used for human consumption. The outlets cannot have POU devices except as provided in clauses (C)—(E). Samples shall be collected as follows:

(A) School samples shall be collected at the following locations:

(I) Two drinking water fountains.

(II) One kitchen faucet used for food preparation or drinking.

(III) One classroom faucet or other outlet used for human consumption.

(IV) One nurse's office faucet.

(B) Child care facility samples shall be collected at the following locations:

(I) One drinking water fountain.

(II) One at a kitchen faucet used for food preparation or drinking, a classroom faucet or other outlet used for human consumption.

(C) If any facility has fewer than the required number of outlets, the water system shall sample all outlets used for human consumption.

(D) Outlets used for sampling may not be equipped with a POU device, unless the facility has POU devices installed on all outlets typically used for human consumption.

(E) If any facility does not contain the type of outlet listed in clauses (A)—(D), the samples shall be collected from other outlets typically used for human consumption as identified by the facility to meet the required number of samples notated in this subparagraph.

(F) Samples shall be collected in accordance with the following requirements:

(I) The sample shall be collected from a cold-water tap.

(II) Each sample for lead shall be a first-draw sample.

(III) The sample shall be 250 mL in volume.

(IV) The water must have remained stationary in the plumbing system of the sampling site for at least 8 hours but no more than 18 hours.

(V) Samples shall be analyzed following analytical methods specified in subsection (i).

(ii) Staff of the community water system, school or child care facility, or other appropriately trained individuals, shall collect samples in accordance with this paragraph.

(6) Notification of results.

(i) A community water system shall provide analytical results, along with information about lead in drinking water remediation options consistent with current EPA guidance, to the school or child care facility as soon as practicable but no later than 30 days after receipt of the results.

(ii) A community water system shall provide the analytical results as soon as practicable but no later than 30 days after receipt of the results to:

(A) The local health departments and the Department of Health.

(B) The Department.

(7) Alternative school and child care lead sampling waiver. If schools and child care facilities served by a community water system are sampled for lead in drinking water under a State or local law or program, the Department may exempt the water system from the sampling requirements at those facilities by issuing a written waiver.

(i) The community water system may be exempt from the sampling requirements if one of the following criteria are met:

(A) If the sampling meets the requirements in paragraphs (4) and (5).

(B) If the sampling meets the requirements in paragraphs (4) and (5) with the exceptions of sample size and stagnation time in paragraph (5)(i)(F)(III) and (IV) and is conducted in addition to any of the following lead in drinking water remediation steps.

(I) Disconnect affected fixtures.

(II) Replace affected fixtures with certified lead free fixtures.

(III) Install and maintain POU devices certified by an ANSI-accredited certifier to reduce lead levels.

(C) If the sampling is conducted in schools and child care facilities served by the community water system less frequently than once every 5 years and that sampling is conducted in addition to any of the remediation steps in clause (B).

(D) If the school or child care facility maintains POU devices on all outlets used to provide water for human consumption.

(E) If the sampling is conducted under a grant awarded under section 1464(d) of the Federal act (42 U.S.C. § 300j-24(d)), consistent with the requirements of the grant, and at least the minimum number of samples required in paragraph (4) are collected.

(ii) The waiver duration cannot exceed the sampling period of the qualifying State or local law or program. The waiver will automatically expire after a 12-month period during which sampling is not conducted at the required number of schools or child care facilities.

(iii) The Department will issue a waiver only to the subset of schools or child care facilities listed in paragraph (2) that are sampled under an alternative program as defined in this paragraph.

(iv) The Department may issue a waiver for community water systems that conducted sampling for lead at schools and child care facilities between January 1, 2021, and November 1, 2027. The waiver would exempt the water system from completing the sampling requirements in paragraph (4) so long as the sampling under the alternative program met the criteria in subparagraph (i).

§ 109.1104. Public education and notification, supplemental monitoring and mitigation requirements.

(a) [Public] *Lead public education program.* [The water supplier for a] A water system that exceeds the lead action level based on tap monitoring conducted under § 109.1103 (relating to monitoring requirements) shall implement a public education program in accordance with this

section. The public education program **[must] shall** remain in effect until the system qualifies for discontinuation under paragraph (3).

(1) *Content.* The water **[supplier] system** shall include mandatory language established by the EPA under 40 CFR 141.85 (relating to public education and supplemental monitoring **and mitigation** requirements), which is incorporated by reference, in all of **[the printed and broadcast] the written** materials distributed through the lead public education program. Additional information presented by a system **[must] shall** be consistent with the information specified in this **[section and be in plain English that can be understood by laypersons] subsection and be in plain language that can be understood by the general public.** If appropriate or as designated by the Department, public education materials **[must] shall** be bilingual or multilingual, **in accordance with subparagraph (ii).** Systems may delete information pertaining to lead service lines, upon approval by the Department, if no lead service lines exist in the system's service area. **The Department may require the system to obtain approval of the content of written public education materials prior to delivery.**

(i) *Content of written materials.* Community water **[suppliers] systems** and nontransient noncommunity water **[suppliers] systems** shall include the mandatory language and other content requirements established under 40 CFR 141.85(a)(1) **[and (2)]**, which is incorporated by reference.

(ii) *Information for non-English-speaking populations.* **[For each non-English-speaking group that exceeds 10% of the residents for systems serving at least 1,000 people or 100 residents for systems serving less than 1,000 people, and speak the same language other than English, the written materials must contain information in the appropriate languages regarding the importance of the materials or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the materials or to request assistance in the appropriate language.] Public education written materials required by this section shall comply with the following multilingual requirements:**

(A) Contain information in Spanish regarding the importance of the notice.

(B) Contain information regarding the importance of the notice in the appropriate languages if either of the following criteria are met:

(I) A system serving at least 1,000 people has a non-English-speaking group other than Spanish that exceeds 10% of the population served.

(II) A system serving less than 1,000 people has a non-English-speaking group other than Spanish of 100 or more residents.

(C) Instead of providing information in Spanish and other languages as specified in clauses (A) and (B), the written materials may contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the notice or to request assistance.

(iii) *Submission of written materials.* [Water systems shall submit copies of all written public education materials to the Department prior to delivery.]

(A) Water systems shall submit copies of all written public education materials to the Department prior to delivery.

(B) Within 10 days following the end of each period in which the system is required to perform public education, the water system shall submit written documentation to the Department demonstrating that the system has complied with the public education program requirements of this section. The documentation shall contain a list of newspapers, radio and television stations, facilities and organizations to which the system has delivered public education materials during the most recent period.

(C) A system that previously submitted the information specified in clause (B) does not need to resubmit it if there have been no changes in the distribution list and the system certifies that the public education materials were distributed to the same list submitted previously.

(2) *Delivery.*

(i) *Community water system requirements.* Within 60 days after the end of the [monitoring] tap sampling period in which the lead action level was exceeded, [unless it is already repeating public education tasks under this subsection, the water supplier for] a community water system shall deliver the public education materials to its customers in accordance with clauses (A)—(G). [The water supplier shall repeat the tasks contained in clauses (A)—(D) and (H) every 12 months, and in clause (G) every 6 months for as long as the system exceeds the lead action level.] For systems that are on standard monitoring, the end of the tap sampling period is June 30 or December 31. For systems that are required to conduct monitoring annually or less frequently, the end of the [monitoring] tap sampling period is September 30 of the calendar year in which sampling occurs, or[,] if the Department has designated an alternate [monitoring period, the end of the monitoring period is the last day of the 4-month period in which sampling occurs] 4-month tap sampling period, the last day of that period.

(A) The water [supplier shall deliver printed] system shall deliver written materials meeting the content requirements of paragraph (1) to [all bill paying customers] each customer receiving a bill and to other service connections to which water is delivered by the system. For multifamily dwellings, the water system shall deliver the written materials to each unit or post the information at a conspicuous location.

(B) The water [supplier] system shall deliver education materials meeting the content requirements of paragraph (1) to the local [board or department of public

health that has jurisdiction over] public health agencies, even if they are not located within the water system's service area, along with an informational notice that encourages distribution to all the potentially affected consumers. The water [supplier] system shall contact the local [board or department of] public health agencies directly by phone, email or in person. The local [board or department of] public health agencies may provide a specific list of additional community based organizations serving [target] populations at greatest risk from lead exposure which may include organizations outside the service area of the water system. If a list is provided, the water supplier shall deliver education materials that meet the content requirements of paragraph (1) to all the organizations on the list.

(C) The water [supplier] system shall deliver education materials meeting the content requirements of paragraph (1) to [the] consumers and organizations most at risk, as listed in subclauses (I)—[(VI)] (VII) that are located within the water system's service area, along with an informational notice that encourages distribution to all [the organization's potentially affected customers or water system's users] potentially affected consumers:

(I) [Public and private schools or local school boards, or both] Schools, child care facilities and school boards.

(II) Women, Infants[,] and Children [or] (WIC) and Head Start Programs [whenever available].

(III) Public and private hospitals and medical clinics.

(IV) Pediatricians.

(V) Family planning clinics.

(VI) Local welfare agencies.

(VII) Obstetricians-gynecologists and midwives.

(D) [The water supplier shall make a good faith effort to locate the following organizations within the water system's service area and deliver education materials meeting the content requirements of paragraph (1) to them along with an informational notice that encourages distribution to all the organization's potentially affected customers or users. The good faith effort to contact at-risk customers must include requesting a specific contact list of the organizations in subclauses (I)—(III) from the local board or department of public health that has jurisdiction over the water system's service area:

(I) Licensed childcare centers.

(II) Public and private preschools.

(III) Obstetricians-gynecologists and midwives] {Reserved}.

(E) The water [supplier] system shall provide information [on or in] with each water bill at least quarterly for so long as the water system exceeds the lead action level. The message on the water bill [must] shall include the following statement exactly as written except for the text in brackets for which the water system [must] shall include system-specific information:

“[INSERT WATER SYSTEM NAME] found [high] elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems. For more information please [call] contact [INSERT WATER SYSTEM NAME] (or visit [INSERT [WEB SITE ADDRESS] WATER SYSTEM WEBSITE]).”

(F) The water [supplier] system shall post and retain education materials meeting the content requirements of paragraph (1) on the water system’s [web site] website if the system serves a population greater than [100,000] 50,000 for [as] so long as the system exceeds the lead action level.

(G) The water [supplier] system shall submit a press release to newspaper, radio and television stations. The submitted press release shall state that the water system found elevated levels of lead in drinking water in some homes/buildings and shall meet the content requirements of paragraph (1).

(H) In addition to the requirements of clauses (A)—[(F)] (G), community water [suppliers] systems shall implement at least three activities from the categories listed in subclauses (I)—(IX). The educational content and selection of these activities shall be determined in consultation with the Department.

(I) Public service announcements.

(II) Paid advertisements.

(III) Public area information displays.

(IV) [E-mails] Emails to customers.

(V) Public meetings.

(VI) Household deliveries.

(VII) Targeted individual customer contact.

(VIII) Direct distribution of education materials to all multifamily homes and institutions.

(VIII.1) Contact organizations representing plumbers and contractors to provide information about lead in drinking water, sources of lead and the importance of using lead free plumbing materials.

(IX) Other methods approved by the Department.

(H.1) The water system shall repeat the tasks in clauses (A)—(H) until the system is at or below the lead action level based on samples collected in accordance with § 109.1103. These repeated activities must be completed within 60 days of the end of each tap sampling period. A calculated 90th percentile concentration at or below the lead action level based on fewer than the minimum number of required samples under § 109.1103 cannot be used to meet the requirements of this subparagraph.

(I) A community water system may apply to the Department, in writing, **[to omit the text required in 40 CFR 141.85(a)(2) and]** to perform the tasks listed under subparagraph (ii) in lieu of the tasks under clauses (A)—(H) if the following apply:

(I) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to the plumbing or installing **[point-of-use] POU** treatment devices.

(II) The system provides water as part of the cost of services provided and does not charge for water consumption.

(J) A community water system serving 3,300 or fewer persons may modify its public education program as follows:

(I) The system may limit distribution of public education materials required under clauses (B) and (C) to facilities and organizations served by the system that are most likely to be visited by pregnant women and children.

(II) The system may omit the task in clause (G) if notices meeting the content requirements of paragraph (1) are distributed to every household served by the system.

(III) The system shall implement at least one of the tasks specified in clause (H).

(ii) *Nontransient noncommunity water system requirements.* Within 60 days after the end of the **[monitoring] tap sampling** period in which the lead action level was exceeded, **[the water supplier for]** a nontransient noncommunity water system shall deliver the public education materials contained in paragraph (1) to its consumers[, **unless it is already repeating public education tasks under this subsection]**. **For systems that are on standard monitoring, the end of the tap sampling period is June 30 or December 31.** For systems that are required to conduct monitoring annually or less

frequently, the end of the [monitoring] tap sampling period is September 30 of the calendar year in which sampling occurs, or[, if the Department has designated an alternate [monitoring period, the end of the monitoring period is the last day of the 4-month period in which sampling occurs] 4-month tap sampling period, the last day of that period.

(A) The water [supplier] system shall post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system [and distribute informational pamphlets or brochures, or both, on lead in drinking water to each person routinely served by the nontransient noncommunity water system] until the system is at or below the lead action level based on tap samples collected in accordance with § 109.1103. [Systems may use electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.]

(A.1) The water system shall distribute informational pamphlets or brochures, or both, on lead in drinking water to each person served by the nontransient noncommunity water system. Systems may use electronic transmission instead of or combined with printed materials if it achieves at least the same coverage.

(B) The water [supplier] system shall repeat the tasks contained in [clause (A) at least once during each calendar year in which the system exceeds the lead action level] clauses (A) and (A.1) until the system is at or below the lead action level based on tap samples collected in accordance with § 109.1103. These repeated activities shall be completed within 60 days of the end of each tap sampling period. A calculated 90th percentile concentration at or below the lead action level based on fewer than the minimum number of required samples under § 109.1103 may not be used to meet the requirements of this subparagraph.

(iii) *Extension of the 60-day delivery deadline.* Water systems may request in writing an extension of the 60-day delivery deadline[, but the water system must receive written approval from the Department prior to the 60-day deadline] to complete the tasks specified in subparagraph (i)(B)—(H) for community water systems or subparagraph (ii)(A) and (A.1) for nontransient noncommunity water systems. The water system shall receive written approval from the Department prior to the 60-day deadline for the extension to take effect.

(A) The Department may grant the extension on a case-by-case basis only if the system has demonstrated that it is not feasible to complete the tasks specified in subparagraph (i)(B)—(H) or subparagraph (ii)(A) and (A.1), as applicable, within 60 days.

(B) The tasks specified in subparagraphs (i) and (ii) shall be completed no later than 6 months after the end of the tap sampling period in which the lead action level exceedance occurred.

(3) *Discontinuation of lead public education program.* A water supplier may discontinue delivery of public education materials if the system does not exceed the lead action level during the most recent 6-month monitoring period conducted under § 109.1103. The system shall resume public education in accordance with this section if it exceeds the lead action level at any time during a future **[monitoring] tap sampling** period.

(4) *[Notification of customer monitoring. A water supplier that fails to meet the lead action level on the basis of tap monitoring conducted in accordance with § 109.1103 shall provide information regarding laboratories certified by the Department for lead and copper testing to any customer who requests it] {Reserved}.*

(4.1) Customer-requested sampling and notification of results. A water system shall collect customer-requested samples and provide notification as follows:

(i) If the lead action level is exceeded, based on tap samples collected in accordance with § 109.1103, collect first-liter and fifth-liter samples for lead in the tap water of any person served by the water system who requests it. At sites served by a lead, GRR or lead status unknown service line, the samples shall capture both water in contact with premise plumbing and water in contact with the service line.

(ii) Regardless of whether the water system exceeds the lead action level, offer to collect first-liter and fifth-liter samples for lead in the tap water of any person served by a lead, GRR or lead status unknown service line who requests it. The samples shall capture both water in contact with premise plumbing and water in contact with the service line.

(iii) Provide a consumer notice of the individual tap results from customer-requested sampling to the persons served by the water system at the specific sampling site from which the sample was taken. Water systems shall provide the consumer notice in accordance with the requirements of subsection (b).

(b) *Notification of results.* Water systems shall deliver a consumer tap notice of lead **and copper** tap water monitoring results to persons served by the water at sites that are sampled under § 109.1103.

(1) *Content.* The consumer notice must include the following:

(i) [The results of lead tap water monitoring for the tap that was sampled.] The tap water monitoring results of lead or copper, or both, for the tap that was tested.

(ii) An explanation of the health effects of lead or copper, or both, that meets the requirements of 40 CFR 141.85(a)(1) and 40 CFR Part 141, Subpart Q, Appendix B (relating to standard health effects language for public notification).

(iii) A list of steps consumers can take to reduce exposure to lead or copper, or both in drinking water that meets the requirements of 40 CFR 141.85(a)(1).

(iv) Contact information for the water system.

(v) The maximum contaminant level goal and the action level for lead or copper, or both and the definitions for these two terms specified by the EPA in 40 CFR 141.153(c) (relating to content of the reports).

(vi) Information on possible sources of lead in drinking water that meets the requirements of 40 CFR 141.85(a)(1).

(2) *Timing.* [Water systems shall provide the consumer notice within 30 days after the system learns of the tap monitoring results.] **Water systems shall provide the consumer notice as soon as practicable but not later than 3 business days after the system learns of the tap monitoring results. Notification by mail must be postmarked within 3 business days of the system learning of the tap monitoring results.**

(3) *Delivery.* [The consumer notice shall be delivered to persons served at the tap that was sampled either by mail or by another method approved by the Department. The system shall provide notice to all persons served by the tap that was sampled, including consumers who do not receive water bills.] **The consumer notice shall be delivered to persons served at the tap that was sampled through one of the methods identified in subparagraphs (i)—(v). The notices of lead and copper tap sampling results may be combined in one notice. For a nontransient noncommunity water system in which persons 17 years of age or under are cared for or educated, such as a school or child care facility, the water system shall also provide a consumer tap notice directly to the parent or guardian of each of those persons.**

(i) Electronically.

(ii) By mail.

(iii) By phone call or voice message. If the water system utilizes this delivery method, the system shall follow up with a written notice to consumers hand delivered or postmarked within 30 days of the system learning of the tap monitoring results.

(iv) Hand delivery.

(v) Another method approved by the Department.

(4) Reporting to the Department.

(i) Within 3 months following the end of the monitoring period in which lead tap monitoring was conducted, the water system shall submit to the Department a sample copy of the consumer notice along with a certification that the notices were distributed in accordance with this subsection.

(ii) Annually by January 30, for tap samples from the previous calendar year that are not included in subparagraph (i), the water system shall submit to the Department a sample copy of the consumer notice along with a certification that the notices were distributed in accordance with this subsection.

(c) Public notification requirements. A water [supplier] **system** shall give public notification in accordance with Subchapter D (relating to public notification) when one of the following occurs:

(1) The water supplier fails to perform monitoring and analyses as required by [§ 109.1103] this subchapter.

(2) The water supplier is not in compliance with a treatment technique established under [§ 109.1102(b) (relating to action levels and treatment technique requirements)] this subchapter.

(3) The water system exceeds the action level for lead.

(4) The water system fails to comply with the reporting requirements of § 109.1107 (relating to system management responsibilities).

(d) Notification of service lines known to contain lead or potentially containing lead. Water systems shall provide written notice to all persons served by a lead, GRR or lead status unknown service line in accordance with this subsection.

(1) Timing of notification. A water system shall provide the initial notification within 30 days of completion of the service line and connector inventory required under § 109.1109(a) (relating to service line and connector inventory, service line replacement plan and sample site plan) and repeat the notification no later than 30 days after the deadline for each annual update to the service line and connector inventory until the entire service connection is no longer a lead, GRR or lead status unknown service line. For new customers, water systems shall provide the notice at the time of service initiation.

(2) Content. The notice shall include an explanation of the health effects of lead that meets the requirements of 40 CFR 141.85(a)(1)(ii), which is incorporated by reference under subsection (a), as well as steps persons at the service connection can take to reduce exposure to lead in drinking water. The notice shall also include information specific to each type of service line in accordance with subparagraphs (i) and (ii).

(i) For persons served by a confirmed lead or GRR service line, the notice shall also include the following:

(A) A statement that the person's service line is lead or GRR.

(B) A statement that the consumer can request to have their tap water sampled in accordance with § 109.1103.

(C) Information on how to obtain a copy of the service line replacement plan or view the plan on the internet if the system is required to make the service line replacement plan available online.

(D) Information about opportunities to replace lead or GRR service lines as well as programs that provide financing solutions to assist property owners with replacement of their portion of the lead or GRR service line.

(E) A statement that the water system is required to replace its portion of a lead or GRR service line when the property owner notifies the water system that the property owner is replacing their portion of the lead or GRR service line.

(F) A statement that provides instructions for the customer to notify the water system if they disagree with the service line material categorization in the inventory.

(ii) For persons served by a lead status unknown service line, the notice shall include the following:

(A) A statement that the person's service line material is unknown but may be lead.

(B) A statement that the consumer can request to have their tap water sampled in accordance with § 109.1103.

(C) Information on how to obtain a copy of the service line replacement plan or view the plan on the internet if the system is required to make the service line replacement plan available online.

(D) Information about opportunities to verify the material of the service line.

(3) Delivery. The notice shall be provided to customers and consumers at the service connection with a lead, GRR or lead status unknown service line, by one of the following methods:

(i) Electronically.

(ii) By mail.

(iii) Hand delivery.

(iv) Another method approved by the Department.

(4) Reporting to the Department. Annually by January 30, the water system shall demonstrate to the Department that it delivered annual consumer notification and

service line information materials to customers and all persons served by the water system at the service connection with a lead, GRR or lead status unknown in accordance with this subsection for the previous calendar year. The water system shall also provide a copy of the notification and information materials to the Department.

(e) Notification of disturbance to a service line known to contain lead or potentially containing lead. Water systems that cause any disturbance to a lead, GRR or lead status unknown service line shall provide notification to customers and the persons served by that service line with information about the potential for elevated lead levels in drinking water as a result of the disturbance in accordance with this subsection.

(1) For actions taken by a water system that cause a disturbance that results in a shut off or bypass of water, or other actions that cause a disturbance such as physical action or vibration to an individual service line or group of service lines, the water system shall provide notification in accordance with this paragraph. These actions include operating a valve on a service line or meter setter, reconnecting a service line to the main or undergoing physical action or vibration, which could result in pipe scale dislodging and associated release of particulate lead. When these actions occur, the water system shall provide the following:

(i) Public education materials that meet the content requirements in 40 CFR 141.85(a)(1)(ii)—(iv) and (vi).

(ii) Contact information for the water system.

(iii) Instructions for a flushing procedure to remove particulate lead.

(2) For a disturbance that results from the replacement of an inline water meter, a water meter setter, connector or from the replacement of a water main whereby the service line pipe is physically cut, the water system shall provide the following:

(i) Public education materials that meet the content requirements in 40 CFR 141.85(a)(1)(ii)—(iv) and (vi).

(ii) Contact information for the water system.

(iii) Instructions for a flushing procedure to remove particulate lead.

(iv) A pitcher filter or POU device certified by an ANSI-accredited certifier to reduce lead, instructions to use the filter and 6 months of filter replacement cartridges.

(3) When there was a disturbance and service was shut off or bypassed, the water system shall comply with the requirements of paragraphs (1) and (2) for consumers (persons served by the water system at the service connection) before the affected service line is returned to service. When there was a disturbance, but service was not

shut off or bypassed, the water system shall comply with the requirements in this subsection as soon as possible, but not to exceed 24 hours following the disturbance.

(4) The water system shall comply with the requirements of paragraph (1) for customers associated with the service connection who are not persons served by the water system at the service connection no later than 30 days following the disturbance.

(5) A water system that conducts a partial or full replacement of a lead or GRR service line shall follow procedures in accordance with the requirements in § 109.1110(e) (relating to service line and lead connector replacement requirements). Partial or full replacement of a lead or GRR service line is not considered a disturbance for purposes of this subsection.

(6) Annually by January 30, the water system shall certify to the Department that it delivered notification to affected customers and consumers after any lead service line disturbance in accordance with this subsection for the previous calendar year, or that the water system has not caused any disturbance of a service line known to contain or potentially containing lead, during the preceding year. The water system shall provide the certification and a copy of the notification to the Department. When the water system is required to provide filters in accordance with this subsection, the system shall report the number of sites with disturbances that required filters and the number of filters provided.

(f) Outreach activities to encourage participation in full service line replacement.

(1) Community water systems that do not meet the cumulative average replacement rate as required under § 109.1110(a)(9) shall conduct at least one outreach activity in accordance with paragraph (3) to discuss their mandatory service line replacement program, opportunities for replacement and to distribute public education materials that meet the content requirements in 40 CFR 141.85(a), except 40 CFR 141.85(a)(1)(i) and (v).

(2) Water systems shall conduct the outreach activity in the first year after the system did not meet their cumulative average replacement rate and continue annually until the water system meets the cumulative average replacement rate or until there are no lead, GRR or lead status unknown service lines remaining in the inventory, whichever occurs first.

(3) For community water systems serving more than 3,300 persons, the outreach activity shall be one of the activities identified in subparagraphs (i)—(iv) or the water systems shall conduct two activities identified in subparagraphs (v)—(viii). For community water systems serving 3,300 persons or fewer, the outreach activity shall be one of the activities identified in subparagraphs (i)—(viii).

(i) Conduct a public meeting.

(ii) Participate in a community event to provide information about its service line replacement program.

(iii) Contact customers by phone call or voice message, text message, email or door hanger.

(iv) Use another method approved by the Department to discuss the service line replacement program and opportunities for replacement.

(v) Send certified mail to customers and all persons served by the water system at the service connection with a lead or GRR service line to inform them about the water system's service line replacement program and opportunities for replacement.

(vi) Conduct a social media campaign.

(vii) Conduct outreach through the media including newspaper, television or radio.

(viii) Visit targeted customers to discuss the service line replacement program and opportunities for replacement.

(4) Annually by January 30, the water system shall demonstrate to the Department that it conducted outreach activities in accordance with this subsection when failing to meet the cumulative average replacement rate for the previous calendar year. The water system shall submit to the Department a copy of the information provided during outreach activities.

(g) Notification to the local health departments and the Department of Health. All community water systems shall provide the information specified in paragraphs (1) and (2) to local health departments and the Department of Health. This information shall be provided by mail, email or another method approved by the Department, no later than July 1 of the following year.

(1) The following information regarding the Distribution System and Site Assessment activities conducted in accordance with § 109.1102(e) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements) for the previous calendar year:

(i) Location of the tap sample site that exceeded the lead action level of 0.010 mg/L.

(ii) The result of the initial tap sample.

(iii) The result of the follow-up tap sample.

(iv) The results of WQP monitoring.

(v) Any distribution system management actions or CCT adjustments made.

(2) Copies of the public education materials provided under subsections (a) and (e) for actions conducted in the previous calendar year.

(3) Annually by January 30, the water system shall certify to the Department that it delivered the Distribution System and Site Assessment information required under paragraph (1) to local health departments and the Department of Health for the previous calendar year.

(h) Additional requirements for water systems with multiple lead action level exceedances. A water system that exceeds the lead action level more than once in a rolling 5-year period, based on tap water samples collected in accordance with § 109.1103, shall comply with the requirements of this subsection. The first rolling 5-year period begins on November 1, 2027.

(1) No later than 60 days after a water system exceeds the lead action level for the second time in a rolling 5-year period, the water system shall submit a filter plan to the Department for review and approval. The water system is not required to resubmit the filter plan after additional exceedances, unless the system has made updates to the plan or otherwise requested by the Department. The filter plan shall include:

(i) A description of which methods the system will use to make filters and replacement cartridges available in accordance with paragraph (3).

(ii) A description of how the system will address any barriers to consumers obtaining filters.

(2) A water system that exceeds the lead action level at least three times in a rolling 5-year period shall conduct the activities in paragraphs (3)—(5). If a water system exceeds the lead action level at least three times within a 5-year period, the system shall conduct these actions upon the third action level exceedance even if the rolling 5-year period has not elapsed.

(3) No later than 60 days after the tap sampling period in which a water system meets the criteria of paragraph (2), a water system shall provide to all consumers pitcher filters or POU devices certified by an ANSI-accredited certifier to reduce lead, 6 months of replacement cartridges and instructions for use. A water system shall continue to make replacement cartridges available until the system can discontinue actions in accordance with paragraph (6).

(4) A water system that meets the criteria of paragraph (2) shall conduct a community outreach activity to discuss the multiple lead action level exceedances, steps the system is taking to reduce lead in drinking water, measures consumers can take to reduce their risk consistent with the content requirements of 40 CFR 141.85(a)(1)(iv) and how to obtain a filter certified to reduce lead as required in paragraph (3). This activity is in addition to the public education activities required under subsection (a)(2)(i) for

community water systems, and subsection (a)(2)(ii) for nontransient noncommunity water systems. The water system shall conduct at least one of the following activities within 6 months of the end of the tap sampling period in which the most recent lead action level exceedance occurred and every 6 months thereafter until the system no longer meets the criteria of paragraph (2).

(i) Conduct a public meeting.

(ii) Participate in a community event where the system can make information about ongoing lead exceedances available to the public.

(iii) Contact customers by phone call or voice message, text message, email or door hanger.

(iv) Conduct a social media campaign.

(v) Use another method approved by the Department.

(5) A water system that is already conducting an outreach activity listed in paragraph (4) to meet the requirements of subsection (e) may conduct one activity that meets the requirements of paragraph (4) and subsection (e), unless otherwise directed by the Department.

(6) A water system may discontinue the requirements of this subsection when the system no longer has at least three lead action level exceedances in a rolling 5-year period. A 90th percentile level at or below the lead action level, based on fewer than the minimum number of required samples under § 109.1103, may not be used to meet the requirements of this paragraph. The Department has the discretion to allow a water system to discontinue the requirements of this subsection earlier if the system has taken actions to reduce lead levels, such as reoptimizing OCCT or completing the service line replacement program, and the system is at or below the lead action level for two consecutive tap monitoring periods.

(7) Every 6 months, specifically by January 30 and July 30 of each year, the water system shall:

(i) Certify to the Department compliance with the filter requirements specified in paragraph (3) for the previous 6 months and report to the Department the number of filters provided.

(ii) Certify to the Department completion of a public outreach activity specified in paragraph (4) for the previous 6 months and submit to the Department a copy of the public education material provided to consumers.

§ 109.1105. Permit requirements.

(a) *General permit requirements.* A person may not construct, substantially modify or operate **[corrosion control treatment] CCT** facilities to comply with this subchapter without having obtained the appropriate permit approvals under Subchapter E (relating to permit requirements) and this section.

(b) *Construction permits and permit amendments.* The water **[supplier] system** shall submit an application for a public water system construction permit for a newly created system or an amended construction permit for a currently-permitted system for **[corrosion control treatment] CCT** facilities by the applicable deadline established in § **[109.1102(b)(2) (relating to action levels and treatment technique requirements), unless the system complies with paragraph (1) or (2) or otherwise] 109.1102(b) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements), unless the system** qualifies for a minor permit amendment under § 109.503(b) (relating to public water system construction permits). The permit application **[must] shall** comply with § 109.503 and contain the applicable information specified therein. **[The application must include recommended water quality parameter performance requirements for optimal corrosion control treatment as specified in § 109.1102(b)(5) and other data, information or documentation necessary to enable the Department to consider the application for a permit for construction of the facilities.]** **In addition, the application shall include the following:**

(1) *[Community water system minor permit amendments.* Until August 18, 2018, a community water supplier may submit a written request for an amended construction permit to the Department if the system satisfies the conditions under subparagraphs (i)—(iv). A request for an amended construction permit under this paragraph must describe the proposed change in sufficient detail to allow the Department to adequately evaluate the proposal.

(i) The system is a small water system.

(ii) The sources of supply for the system are not surface water sources.

(iii) Except for corrosion control treatment, the sources require treatment no greater than disinfection to provide water of a quality that meets the MCLs and treatment technique requirements established under Subchapter B (relating to MCLs, MRDLs or treatment technique requirements).

(iv) The proposed corrosion control treatment is limited to alkalinity or pH adjustment, or both] **{Reserved}**.

(1.1) A CCT feasibility study.

(1.2) A recommendation for WQPs for OCCT.

(1.3) Other data, information or documentation necessary to enable the Department to consider the application for a permit for construction of the facilities, as requested by the Department.

(2) [Nontransient noncommunity water system permits. Until August 18, 2018, a nontransient noncommunity water supplier is not required to obtain a construction permit or permit amendment under subsection (b) if the system satisfies the following specifications and conditions:

(i) The system is a small water system.

(ii) The sources of supply for the system are not surface water sources.

(iii) Except for corrosion control treatment, the sources require treatment no greater than disinfection to provide water of a quality that meets the MCLs and treatment technique requirements established under Subchapter B.

(iv) The proposed corrosion control treatment is limited to alkalinity or pH adjustment, or both.

(v) The water supplier files a brief description of the proposed treatment, including recommended water quality parameter performance requirements for optimal corrosion control treatment as specified in § 109.1102(b)(5), on forms acceptable to the Department. Descriptions of modifications shall be submitted and approved by the Department prior to construction] {Reserved}.

(3) [Beginning August 19, 2018, community water systems and nontransient noncommunity water systems required to install optimal corrosion control treatment in accordance with § 109.1102(b) shall obtain a construction and operation permit] {Reserved}.

(c) Operation permits. [Except for nontransient noncommunity water systems complying with subsection (b)(2), the] The water supplier shall obtain an operation permit or amended operation permit following completion of construction and prior to initiation of operation of [corrosion control treatment] CCT facilities. The permit will be issued in accordance with § 109.504 (relating to public water system operation permits). The Department will not issue an operation permit under this subchapter unless the water system complies with the operation and maintenance plan requirements under § 109.1107(b) (relating to system management responsibilities) and the operator certification requirements under § 109.1107(c). The [water supplier for a] community water system or nontransient noncommunity water system shall submit a request for Department designation of [optimal corrosion control treatment performance requirements in accordance with § 109.1102(b)(2)] WQPs in accordance with § 109.1102(b) and the Department will issue an amended operation permit designating the [performance requirements as specified in § 109.1102(b)(5)] WQPs as specified in § 109.1102(b)(3.1)(vi).

§ 109.1106. Design standards.

[Corrosion control treatment] CCT facilities shall be designed to satisfy the following standards unless the Department determines that the requirement is not technologically feasible or is not necessary to optimize corrosion control:

- (1) A minimum pH measured in distribution samples of at least 7.0.
- (2) **[For systems that are exempt under § 109.1105(b)(1) or (2) (relating to permit requirements) from submitting a construction permit application, a] A** minimum alkalinity measured in all distribution samples of 20 **[mg/l] mg/L**.
- (3) When orthophosphate is used, an orthophosphate concentration equal to or greater than 0.5 mg/L (as PO₄) for water systems installing OCCT and 1.0 mg/L (as PO₄) for water systems reoptimizing OCCT.**

§ 109.1107. System management responsibilities.

(a) **[Reporting] General reporting and recordkeeping requirements.** Systems shall comply with the **[following] reporting and recordkeeping requirements of this subchapter** and otherwise comply with § 109.701 (relating to reporting and recordkeeping)**[:].**

(1) ***[Sample site location plan.*** The system shall prepare a sample site location plan in accordance with § 109.1103(g) (relating to monitoring requirements), maintain the plan on record and submit the plan to the Department prior to conducting initial lead and copper tap monitoring or upon request. The water supplier shall update the following information in the plan within the first 10 days following the end of each applicable monitoring period:

- (i) Selection of different lead and copper tap sample sites from sites sampled during previous monitoring periods.
- (ii) Changes in water quality parameter distribution or entry point site selection or source water entry point site selection from sites sampled during previous monitoring periods.
- (iii) An update of the sample procedure certification required under § 109.1103(g)(4) **[Reserved]**.

(1.1) Sample site plan. The system shall prepare a sample site plan and submit the plan to the Department in accordance with § 109.1109(c) (relating to service line and connector inventory, service line replacement plan and sample site plan).

(2) ***[Reporting of monitoring results.*** The water supplier shall assure that the results of analyses conducted in accordance with § 109.1103 are reported to the Department within the first 10 days following the end of each applicable monitoring period as

stipulated by § 109.1103. Additional monitoring results beyond that required under § 109.1103 shall be kept on record by the water supplier and presented or submitted to the Department upon request.] Reporting requirements for monitoring. The water system shall ensure that the information specified in this subsection is reported to the Department within the first 10 days following the end of each applicable monitoring period under § 109.1103 (relating to monitoring requirements) for any monitoring conducted in accordance with § 109.1103(a), (b.1) and (f.1). For tap sampling periods with a duration of less than 6 months, the results should be reported within the first 10 days following the end of the tap sampling period specified in § 109.1103.

(i) [*Lead and copper tap monitoring*] Monitoring results. The following minimum information is required when reporting lead [and], copper [tap monitoring] and WQP results to the Department.

(A) The name, address and public water system identification number (PWSID) of the public water system from which the samples are taken.

(B) The drinking water contaminant ID.

(C) [The parameter name] The sample collection date.

(D) The sample [period] collection time.

(E) The sample type.

(F) The analytical methods used.

(F.1) The analysis date.

(G) The analytical results [of analyses conducted in accordance with this subchapter for lead and copper tap monitoring].

(H) The sample location.

(I) The name, address and identification number of the [certified] laboratory performing the analysis.

(ii) [*Water quality parameter monitoring results.* The following minimum information is required when reporting water quality parameter results to the Department:

(A) The name, address and PWSID of the public water system from which the samples are taken.

(B) The contaminant ID.

(C) The parameter name.

(D) The sample period.

(E) The sample type.

(F) The number of samples required and the number of samples taken.

(G) The analytical methods used.

(H) The results of analyses conducted in accordance with § 109.1103 for water quality parameters.

(I) The sample location.

(J) Whether an excursion has occurred on more than any 9 days during a 6-month monitoring period for any Department specified water quality parameter] {Reserved}.

(iii) [Source water monitoring results. The following minimum information is required when reporting source water monitoring results to the Department:

(A) The name, address and PWSID of the public water system from which the samples are taken.

(B) The contaminant ID.

(C) The parameter name.

(D) The sample period.

(E) The sample type.

(F) The number of samples required and the number of samples taken.

(G) The analytical methods used.

(H) The results of analyses conducted in accordance with this subchapter for source water monitoring.

(I) The sample location.

(J) The name, address and identification number of the certified laboratory performing the analysis] {Reserved}.

(iv) *Changes to monitoring sites.* A water system shall identify any lead and copper tap or entry point site which was not sampled during previous tap sampling periods and include an explanation of why monitoring sites have changed.

(v) *Sample procedure certification.* A water system shall certify that sample collection methods identified in § 109.1103(a)(4) and provided as part of § 109.1109(c) were used to collect lead and copper tap and entry point samples. Certification shall also include a list of the sample location identification numbers where residents collected the samples.

(2.1) *Invalidation of results.* A water system shall provide documentation for each lead and copper tap sample for which the water system requests invalidation in accordance with § 109.1103(j).

(2.2) *90th percentile lead and copper concentrations.*

(i) The Department will calculate the 90th percentile for water systems in accordance with § 109.1102(a.1) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements).

(ii) If a water system does not submit lead and copper tap samples in accordance with paragraph (2), the water system shall make all of the compliance tap water monitoring data and 90th percentile calculation results publicly available within 60 days following the end of the applicable tap sampling period. Large systems shall make these results available in a digital format. Small and medium systems shall make these results available in either a print or digital format. Water systems shall certify in writing to the Department compliance with the requirements of this subparagraph and shall retain monitoring data in accordance with paragraph (7).

(2.3) *Additional monitoring results.* A water system that collects more samples than the minimum required shall report the results to the Department in accordance with the requirements specified in paragraph (2)(i).

(2.4) *Distribution System and Site Assessment results.*

(i) Follow-up and WQP samples collected for Distribution System and Site Assessment under § 109.1102(e) shall be reported to the Department in accordance with paragraph (2)(i). If the analysis results from this monitoring are not received within 10 days following the end of the monitoring period in which the initial individual lead sample exceeded the action level, then these results shall be reported within 10 days following the month in which the analysis results were received.

(ii) The water system shall certify to the Department the number of customer refusals and nonresponses the system received for follow-up sampling required under § 109.1102(e) and information pertaining to the accuracy of the refusals and

nonresponses, within the first 10 days following the end of the applicable tap sampling period in which an individual sample exceeded the action level.

(3) [Corrosion control treatment reporting requirements.

(i) A water supplier demonstrating optimal corrosion control treatment under § 109.1102(b)(1)(ii) (relating to action levels and treatment technique requirements) shall submit information in writing sufficient for the Department to evaluate and determine whether optimal treatment has been achieved.

(ii) The water supplier for a large water system shall complete a corrosion control treatment feasibility study in accordance with § 109.1102(b)(3) and submit the study to the Department by June 30, 1994.

(iii) The water supplier for a small or medium water system required to complete a corrosion control treatment feasibility study in accordance with § 109.1102(b)(3) shall submit the study to the Department within 18 months of exceeding an action level.

(iv) Upon completion of construction or modification of corrosion control treatment the water supplier shall submit to the Department a certification of construction as required under § 109.504(a) (relating to public water system operation permits).

(v) Upon completion of required monitoring under § 109.1103(c) following construction or modification of corrosion control treatment, the water supplier shall submit to the Department a request for designation of optimal corrosion control treatment performance requirements in accordance with § 109.1102(b)(5). The request shall include as a minimum a summary of analyses conducted under § 109.1103(c) and recommended performance requirements if different from those recommended by the water supplier as part of the construction permit application process] {Reserved}.

(4) [Public education reporting requirements. A water supplier required to implement a public education program in accordance with § 109.1104(a) (relating to public education and notification) shall submit a letter to the Department demonstrating that the system has complied with the public education program requirements of this subchapter within 10 days after the end of each period in which the system is required to perform public education tasks. The letter shall contain a list of newspapers, radio and television stations, facilities and organizations to which the system has delivered public education materials during the most recent period for which the system was required to perform public education tasks] {Reserved}.

(4.1) Reporting requirements for monitoring waivers for systems serving 3,300 or fewer persons. A water system serving 3,300 or fewer persons applying for a monitoring waiver under § 109.1103(k) or subject to a waiver under § 109.1103(k)(3) shall provide the following to the Department in writing by the specified deadline.

(i) By the start of the system's first applicable tap monitoring period in § 109.1103, a water system applying for a monitoring waiver shall provide to the Department the documentation required to demonstrate that the system meets the waiver criteria of § 109.1103(k)(1) and (2).

(ii) Prior to the beginning of each tap monitoring period in which the system desires to maintain its monitoring waiver under § 109.1103(k)(2) or (4), the system shall provide to the Department the information required under § 109.1103(k)(5).

(iii) No later than 60 days after a water system with a monitoring waiver becomes aware that the system is no longer free of lead-containing or copper-containing material, or both, as appropriate, the system shall provide written notification to the Department setting forth the circumstances resulting in the lead-containing or copper-containing materials, or both, being discovered in the system and what corrective action, if any, the system plans to take to remove these materials.

(5) *[Consumer notice of lead tap monitoring results reporting requirements. The water supplier shall submit to the Department within 3 months of the end of the monitoring period in which lead tap monitoring was conducted a sample copy of the consumer notice of lead tap monitoring results along with a certification that the notices were distributed in accordance with § 109.1104(b)] {Reserved}.*

(5.1) Reporting requirements for sampling in schools and child care facilities.

(i) By November 1, 2027, a community water system shall provide to the Department a list of the schools and child care facilities it serves or certification that no schools or child care facilities are served by the water system in accordance with § 109.1103(l)(2). For systems that certify no schools or child care facilities are served by the water system, the following apply.

(A) The water system is not required to report the information in subparagraph (ii).

(B) By January 30, 2029, and annually by January 30 thereafter, the water system shall certify to the Department for the previous calendar year, that the system does not serve schools or child care facilities. When the system becomes aware it serves one or more schools or child care facilities, the system shall provide a list to the Department and begin to report the information in subparagraph (ii).

(ii) By January 30, 2029, and annually by January 30 thereafter, a community water system that serves one or more schools or child care facilities shall send a report to the Department for the previous calendar year's activity related to sampling in schools and child care facilities. The report shall include the following:

(A) Certification that the water system made a good faith effort to identify schools and child care facilities in accordance with § 109.1103(l)(2).

(I) If there are changes to the number of schools or child care facilities that a water system serves, an updated list shall be submitted at least once every 5 years in accordance with § 109.1103(l)(2)(ii).

(II) If there are no changes to the number of schools or child care facilities that a water system serves, the water system shall certify there are no changes to the list.

(B) Certification that the water system has delivered information about health risks from lead in drinking water to the schools and child care facilities they serve in accordance with § 109.1103(l)(2)(i).

(C) Certification that sampling results were provided to schools, child care facilities, local health departments and the Department of Health in accordance with § 109.1103(l)(6).

(D) For the reports covering calendar years 2028—2032, the report shall also include the following:

(I) Certification that the water system has completed the following requirements for schools and child care facilities:

(-a-) Notification and sampling requirements specified in § 109.1103(l)(1)—(6).

(-b-) The number and names of schools and child care facilities served by the water system.

(-c-) The number and names of schools and child care facilities sampled in the previous year.

(-d-) The number and names of elementary schools and child care facilities that declined sampling.

(-e-) The number and names of elementary schools and child care facilities that did not respond to outreach attempts for sampling.

(-f-) Information pertaining to outreach attempts for sampling that were declined or not responded to by the elementary school or child care facility.

(II) Certification that the water system has completed notification and sampling requirements specified in § 109.1103(l)(1)—(6) for any secondary schools.

(E) Beginning with the report covering the 2033 calendar year, the report shall also include the information in clause (D)(I)(-b-) and (-c-) and a certification that the water system completed the notification and sampling requirements specified in § 109.1103(l)(1)—(6) for elementary schools, secondary schools, and child care facilities.

(6) *[Lead service line replacement reporting.*

(i) A water system that is required to initiate lead service line replacement in accordance with subsection (d) shall, within the first 3 months of the first year of lead service line replacement, submit to the Department the following:

(A) Evidence that a materials evaluation of the system has been conducted in accordance with § 109.1103(g)(1).

(B) A schedule for replacing at least 7% of the lead service lines identified in the materials evaluation.

(C) The initial number of lead service lines in its distribution system and the portions owned by the system based on a materials evaluation, including the evaluation required under § 109.1103(g) and relevant legal authorities regarding the portion owned by the system.

(ii) For a system which is conducting lead service line replacement, the water supplier shall notify the Department in writing that the system has replaced at least 7% of the lead service lines identified in the materials evaluation, or that the results of lead sampling from individual lines scheduled for replacement do not exceed 0.015 mg/L. The notification shall be given by the end of each year of lead service line replacement and contain the following information:

(A) The name, address and public water system identification number of the public water system.

(B) The number of lead service lines scheduled for replacement during the previous year.

(C) The number and location of lead service lines actually replaced during the year.

(D) The date, location, the results of this sampling and method of sampling used, if lead service line sampling is completed in individual lead service lines] {Reserved}.

(6.1) Small water system compliance flexibility reporting requirements.

(i) Small water systems serving 3,300 or fewer and nontransient noncommunity water systems implementing the POU device option under § 109.1102(d)(4) shall comply with the following:

(A) Report the results from the tap sampling required under § 109.1102(d)(4)(v) no later than 10 days after the end of the tap sampling period.

(B) Complete a corrective action within 30 days or provide documentation to the Department explaining why the water system was unable to correct the issue within 30 days of receiving a result from a tap sample collected at an outlet with a POU device that exceeded the lead action level.

(C) Provide documentation by January 30 of each year for the previous calendar year to certify maintenance of the POU devices in accordance with § 109.1102(d)(4)(iv).

(ii) Small water systems serving 3,300 or fewer and nontransient noncommunity water systems implementing the small system compliance flexibility option to replace all lead-bearing plumbing under § 109.1102(d)(5) shall provide certification to the Department that all lead-bearing material has been replaced on the schedule established by the Department, within 1 year of obtaining Department approval.

(6.2) Service line inventory and replacements reporting requirements. Water systems shall meet the reporting requirements specified in § 109.1109 and § 109.1110 (relating to service line and lead connector replacement requirements).

(7) *Record maintenance.* The water [supplier] system shall retain on the premises of the system or at a convenient location near the premises the following:

(i) Records of all monitoring results **as specified in § 109.701(d)(1)**, which shall be kept for at least 12 years.

(ii) [A copy of a current sample site location] **Current sample site** plan, which shall be kept for the life of the facility. **Previous versions of the sample site plan shall be kept for at least 12 years from the date each version was last updated.**

(iii) [Copies of written] **Written** correspondence with the Department relating to lead service line replacement, which shall be kept for at least 12 years after the completion of the replacement of applicable lead service lines.

(iv) [Copies of written] **Written** correspondence with the Department relating to the implementation of a public education program, which shall be kept for at least 12 years after the completion of the public education program.

(v) **[Copies of written] Written** correspondence with the Department relating to permitting, construction and operation of **[corrosion control treatment] CCT**, including source water treatment, if applicable, which shall be kept for at least 12 years.

(vi) **[Plans] Design plans**, specifications and permits for water system facilities, which shall be kept for the life of the facility.

(vii) Current service line inventory, which shall be kept for the life of the facility. Previous versions of the service line inventory shall be kept for at least 12 years from the date each version was last updated.

(viii) Current lead service line replacement plan, which shall be kept for at least 12 years from the date the water system determines all lead service lines have been replaced. Previous versions of the service line replacement plan shall be kept for at least 12 years from the date each version was last updated.

(ix) Any additional reports, surveys, letters, evaluations, schedules and Department determinations from this subchapter that are not specifically identified in this paragraph shall be kept for at least 12 years.

(b) *Operation and maintenance plan.*

(1) A community water system **[which] that** completes construction or modification of **[corrosion control treatment] CCT** facilities in accordance with this subchapter shall include in its operation and maintenance plan required under § 109.702 (relating to operation and maintenance plan) information concerning the new or modified **[corrosion control treatment] CCT**.

(2) A nontransient noncommunity water system **[which] that** completes construction or modification of **[corrosion control treatment] CCT** facilities in accordance with this subchapter shall develop an operation and maintenance plan for the facilities.

(3) The operation and maintenance plan for **[corrosion control treatment] CCT** facilities shall conform to the requirements of § 109.702(b) and (c) and shall also contain at least the following information:

(i) A description of the facilities.

(ii) An explanation of startup and normal operation procedures.

(iii) A routine maintenance program.

(iv) A records and reporting system.

(v) Sampling and analysis program.

- (vi) Staffing and training.
- (vii) A safety program.
- (viii) An emergency plan and operating procedures.
- (ix) Manufacturers' manuals.

(c) *Operator certification.* Community water systems and nontransient noncommunity water systems **[which] that** are required to construct or modify **[corrosion control treatment] CCT** facilities in compliance with this subchapter shall comply with the requirements under § 109.704 (relating to operator certification).

(d) ***Lead service line replacement.***

(1) *Initiation of lead service line replacement.* A system that exceeds the lead action level when conducting lead and copper tap monitoring in accordance with § 109.1103(c)(1) or (d)(1) after construction or modification of corrosion control treatment facilities shall initiate lead service line replacement. The first year of lead service line replacement begins on the first day following the end of the monitoring period in which the action level was exceeded. If monitoring is required annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which sampling occurred. If the Department has designated an alternate monitoring period in writing, the end of the monitoring period is the last day of the designated alternate monitoring period.

(2) *Replacement schedule.* The water supplier shall replace annually at least 7% of the initial number of lead service lines in place at the beginning of the first year of replacement. The number of lead service lines shall be based on the materials evaluation conducted in accordance with § 109.1103(g)(1). The Department may require a system to replace lead service lines on a shorter schedule where, because of the number of lead service lines in the system, a shorter replacement schedule is feasible. The Department will notify the water supplier in writing within 6 months of the initiation of lead service line replacement of its decision to require a shorter replacement schedule.

(3) *Lead service line sampling.* The water supplier may sample an individual lead service line to determine whether the line is contributing sufficient lead to warrant its replacement. Lead service lines shall be sampled in accordance with § 109.1103(h)(5). The water supplier is not required to replace a lead service line if none of the lead concentrations in any service line samples from that line exceeds 0.015 mg/L.

(4) *Conditions of replacement.* The water supplier shall replace the portion of the lead service line that it owns. In cases where the system does not own the entire lead service line, the system shall notify the owner of the line, or the owner's authorized agent, that

the system will replace the portion of the service line that the system owns and shall offer to replace the owner's portion of the line. A system is not required to bear the cost of replacing the privately-owned portion of the line or to replace the privately-owned portion of the line if the owner refuses to pay for the cost of replacement of the privately owned portion of the line, or if any laws prohibit this replacement. A system that does not replace the entire length of service line shall complete the following tasks:

(i) The system shall provide notice to residents of all buildings served by the line at least 45 days prior to commencing partial line replacement. The Department may allow a shorter time period for notification in the case of emergency repairs. The notice must explain that residents may experience a temporary increase of lead levels in their drinking water, along with information on measures consumers can take to minimize their exposure to lead. Residents shall be informed that the system will, at the system's expense, collect a sample from each partially-replaced lead service line that is representative of the water in the service line for analysis of lead content in accordance with § 109.1103(h)(5) within 72 hours after the completion of the partial replacement of the service line.

(ii) The system shall collect the partial lead service line replacement sample and report the results of the analysis to the owner and the residents served by the line within 3 business days of receiving the results.

(iii) Information required under subparagraphs (i) and (ii) shall be provided by mail to the residents of individual dwellings. Systems have the option to post this information in a conspicuous location in those instances where multifamily dwellings are served by the line.

(5) *Discontinuation of lead service line replacement.* A water supplier may cease replacing lead service lines if the system meets the lead action level during two consecutive 6-month monitoring periods when conducting lead and copper tap monitoring. Thereafter, if the system exceeds the lead action level, the water supplier shall recommence replacing lead service lines in accordance with paragraph (6).

(6) *Resumption of lead service line replacement.* Water systems that resume a lead service line replacement program shall update their lead service line inventory to include those sites that were previously excluded under paragraph (3). Systems shall divide the updated number of remaining lead service lines by the number of remaining years in the replacement program to determine the number that must be replaced each year. If the system has completed a 15-year lead service line replacement program, the Department will determine a schedule for replacing or retesting lead service lines that were previously tested out under the replacement program (when the system reexceeds the lead action level) {Reserved}.

§ 109.1108. Fees.

An application for the review of a [corrosion control treatment] CCT feasibility study under § [109.1102(b)(3) (relating to action levels and treatment technique requirements)] 109.1102(b) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements), a permit from the Department under this subchapter or a Department designation of [optimal corrosion control treatment] OCCT performance requirements in accordance with § [109.1102(b)(2)(ii) must] 109.1102(b) shall be accompanied by a fee in the amount specified in Subchapter N (relating to drinking water fees).

(*Editor's Note:* Section 109.1109 is proposed to be added and is printed in regular type to enhance readability.)

§ 109.1109. Service line and connector inventory, service line replacement plan and sample site plan.

(a) *Service line and connector inventory.* Water systems shall develop an inventory that identifies the materials and location of each service line and connector attached to the public water distribution system and submit the inventory to the Department by November 1, 2027. Water systems approved to operate after May 1, 2027, shall submit the inventory to the Department within 6 months of the issuance of the operation permit or noncommunity water system approval. The inventory shall meet the following requirements:

- (1) The inventory shall be submitted in a format acceptable to the Department.
- (2) The inventory shall include all service lines and identified connectors that are attached to the public water distribution system regardless of ownership status. When service line ownership is shared, the inventory shall include both the portion of the service line owned by the water system and the portion of the service line owned by the customer but would be counted as only one service line within the inventory.
- (3) When conducting the inventory of service lines and connectors in its distribution system, a water system shall use any information that was previously identified during distribution system evaluations and maintenance that describes service line and connector materials and locations. The water system shall also review the following sources of information to identify service line and connector materials for the inventory:
 - (i) Construction and plumbing codes, permits and existing records or other documentation that indicates the service line and connector materials.
 - (ii) Water system records, including distribution system maps and drawings, recent or historical records on each service line and connector, meter installation records, historical capital improvement or master plans, and standard operating procedures.
 - (iii) Records of inspections in the distribution system that indicate the material composition of service lines and connectors.

(iv) Existing water quality information, which includes the results of prior analyses indicating locations that may be particularly susceptible to high lead or copper concentrations. Historical results below lead and copper action levels are not necessarily indicative of nonlead service lines.

(v) The water system may use other sources of information not listed in subparagraphs (i)—(iv) if approved or required by the Department.

(4) Water systems shall include each connector identified under paragraphs (2) and (3) in the inventory. Connector materials shall be categorized in accordance with subparagraphs (i)—(iv):

(i) “Lead” when the connector is made of lead.

(ii) “Nonlead” when the connector is determined through an evidence-based record, method or technique not to be made of lead. Water systems are not required to identify the specific material of a nonlead connector. Water systems may use the material type as an alternative to categorizing it as a “Nonlead” connector. Water systems may identify the material as nonlead for all connectors installed after either of the following dates identified, whichever is earlier:

(A) January 6, 1991, the effective date of the Plumbing System Lead Ban and Notification Act (35 P.S. §§ 723.1—723.17).

(B) The compliance date of a local law prohibiting the use of service line materials that do not meet the 1986 definition of “lead free” in accordance with section 1417 of the Federal act (42 U.S.C. § 300g-6), as amended in 1986 (Public Law 99-339, 100 Stat. 651).

(iii) “Unknown” when the material of the connector is not known and it was installed prior to either of the dates in subparagraph (ii).

(iv) “No connector present” when there is not a connector at any point along the service line.

(v) The total number of connectors categorized as “Lead” and the total number of connectors categorized as “Unknown” shall be included in the inventory submitted to the Department in accordance with this subsection.

(5) Water systems shall include information on service line materials identified under paragraphs (2) and (3) in the inventory. Each service line, or portion of the service line when the line is split by a curb stop, meter box or other physical interruption, shall be categorized in accordance with subparagraphs (i)—(v).

(i) “Lead” when the service line is a lead service line.

(ii) “Galvanized Requiring Replacement” when the service line is a GRR service line. If the water system is unable to demonstrate that a galvanized service line was never downstream of a lead service line or lead connector, it shall be categorized as “Galvanized Requiring Replacement.”

(iii) “Nonlead” when the service line is determined through an evidence-based record, method or technique not to be lead or GRR. Water systems are not required to identify the specific material of a nonlead service line. A water system may use the material type as an alternative to categorizing it as a “Nonlead.” Water systems may identify the material as nonlead for all service lines installed after either of the dates in subparagraph (4)(ii).

(iv) “Lead Status Unknown” when the service line is not known to be lead, GRR or a nonlead service line, such as when there is not documented evidence or other information reliably supporting identification of the service line material.

(v) When a service line is split by a curb stop, meter box or other physical interruption, it shall be categorized in accordance with the following table:

<i>Segment 1 Material Type</i>	<i>Segment 2 Material Type</i>	<i>Service Line Category</i>
Lead or lead-lined	Any material or unknown material	Lead
Any material or unknown material	Lead or lead-lined	Lead
Unknown material	Any material but lead, lead-lined or galvanized	Lead Status Unknown
Any material but lead, lead-lined or galvanized	Unknown material	Lead Status Unknown
Any material but lead, lead-lined, galvanized or unknown	Any material but lead, lead-lined, galvanized or unknown	Nonlead

<i>Segment 1 Portion</i>		<i>Segment 2 Portion</i>		<i>Service Line Category</i>
<i>Lead connector upstream or line ever previously lead?</i>	<i>Material Type</i>	<i>Lead Connector Upstream?</i>	<i>Material Type</i>	
No	Any material but lead, lead-lined or unknown	No	Any material but lead, lead-lined or unknown	Nonlead
Yes or Not sure	Galvanized	Any response	Unknown material or any material but lead or lead-lined	Galvanized Requiring Replacement
Yes or Not sure	Unknown material or any material but lead or lead-lined	Any response	Galvanized	Galvanized Requiring Replacement

<i>Segment 1 Portion</i>		<i>Segment 2 Portion</i>		<i>Service Line Category</i>
<i>Lead connector upstream or line ever previously lead?</i>	<i>Material Type</i>	<i>Lead Connector Upstream?</i>	<i>Material Type</i>	
No	Unknown material or any material but lead or lead-lined	Yes or Not sure	Galvanized	Galvanized Requiring Replacement

(vi) The total number of each category of service line shall be included in the inventory submitted to the Department in accordance with this subsection.

(6) The inventory shall include a street address for each service line and associated connectors. When a street address is not available, a unique locational identifier, such as block, Global Positioning System (GPS) coordinates, intersection or landmark may be used.

(7) Water systems shall identify and track service line materials, connector materials and addresses in the inventory as they are encountered during normal operations, such as reading water meters or performing maintenance activities.

(8) The inventory shall be publicly accessible.

(i) The publicly accessible inventory shall include the information described in paragraphs (2)—(6) and be updated in accordance with paragraph (9).

(ii) Water systems serving greater than 50,000 persons shall make the publicly accessible inventory available online.

(iii) When a water system has only nonlead service lines and connectors in its inventory, the system may use a written statement for its publicly accessible information instead of the inventory, declaring that the distribution system has nonlead service lines and connectors only. The statement shall include a general description of applicable sources described in paragraph (3) used to make this determination.

(iv) Instructions to access the publicly accessible inventory, including inventories consisting only of a statement in accordance with subparagraph (iii), shall be included in the Consumer Confidence Report in accordance with § 109.416(3) (relating to CCR requirements).

(9) Water systems shall update the inventory annually with any new information acquired from applicable sources described in paragraphs (2) and (6) and any lead or GRR service line replacements, service line material inspections or lead connector replacements that may have been conducted.

(i) A water system that updates its inventory shall comply with the following requirements:

(A) Submit updated versions of the inventory to the Department by January 30, 2029, and annually by January 30 thereafter.

(B) Inventory updates shall be reflected in the publicly accessible inventory no later than the deadline to submit the updated inventory to the Department in clause (A).

(C) Water systems shall identify the material of all lead status unknown service lines by the applicable mandatory service line replacement deadline of December 31, 2037, in accordance with § 109.1110(a)(6) (relating to service line and lead connector replacement requirements).

(D) Water systems with inventories that contain only nonlead service lines and nonlead connectors, or no connectors present, are not required to provide inventory updates to the Department or the public, except as required in subparagraph (ii).

(ii) In the case that a water system meeting the requirements of subparagraph (i)(D), subsequently discovers any lead or GRR service line, or lead connector within its system, the water system shall:

(A) Notify the Department in writing within 60 days of identifying the lead or GRR service lines or lead connectors.

(B) Provide consumer notification in accordance with § 109.1104(d)(2) (relating to public education and notification, supplemental monitoring and mitigation requirements) within 30 days of identifying the lead or GRR service lines or lead connectors.

(C) Submit an updated inventory in accordance with the schedule established by the Department.

(D) Replace the lead or GRR service lines or lead connectors in accordance with § 109.1110.

(iii) Each updated inventory and subsequent updates to the publicly accessible inventory shall include the following information regarding service line material identification and replacement:

(A) The total number of lead service lines in the inventory.

(B) The total number of GRR service lines in the inventory.

(C) The total number of lead status unknown service lines in the inventory.

- (D) The total number of nonlead service lines in the inventory.
 - (E) The total number of lead connectors in the inventory.
 - (F) The total number of connectors of unknown material in the inventory.
 - (G) The total number of full lead service line replacements and full GRR service line replacements that have been conducted in each preceding program year as described in § 109.1110(a)(1).
 - (H) The total number of partial lead service line replacements and partial GRR service line replacements that have been conducted in each preceding program year as described in § 109.1110(a)(1).
- (10) If a consumer or customer (if different from the person served at that service connection) notifies the water system of a suspected incorrect categorization of their service line material in the inventory, the system shall:
- (i) Respond within 30 days of receiving the notification to make an offer to inspect the service line.
 - (ii) Certify to the Department, by January 30, 2029, and annually by January 30 thereafter, that the water system offered to inspect the service lines within 30 days of receiving the customer notification, according to subparagraph (i).
- (11) Water systems shall validate the accuracy of service lines categorized as “nonlead” as follows:
- (i) Identify a validation pool consisting of all service lines categorized as “nonlead,” excluding nonlead service lines identified by the following:
 - (A) Records showing the service line was installed after either of the following dates, whichever is earlier:
 - (I) January 6, 1991, the effective date of the Plumbing System Lead Ban and Notification Act.
 - (II) The compliance date of a local law prohibiting the use of service line materials that do not meet the 1986 definition of “lead free” in accordance with section 1417 of the Federal act, as amended in 1986 (Public Law 99-339, 100 Stat. 651).
 - (B) Visual inspection of the exterior of the pipe at a minimum of two points using one of the methods specified in subclauses (I)—(IV).
 - (I) Closed-circuit television inspection at the curb box.

(II) Visual inspection at an existing access point, such as a meter pit or service line entry to the basement.

(III) Mechanical excavation at a point greater than or equal to 18 inches from the curb stop.

(IV) Another method approved by the Department.

(C) Internal pipe closed-circuit television inspection of the full length of the service line.

(D) A combination of system reviewed records, as well as use of one of the following which confirmed each record was accurate for each portion of the service line:

(I) Statistical analysis of homogeneous areas within the distribution system through physical verification of enough lines to reach at least as many service lines as the validation pool (95% confidence level).

(II) Targeted, flushed or sequential sampling that has been approved by the Department and provides water quality information for the service line.

(III) Visual inspection at a single point. When using this method, the associated record may not be a record exclusively of the same single point along the service line.

(E) Previously replaced lead or GRR service lines.

(F) Another method or combination of methods approved by the Department.

(ii) Confirm the material of service lines of a random sample of nonlead service lines within the validation pool using the following method:

(A) Select a random sample of nonlead service lines by use of a random number generator or lottery method.

(B) Conduct a visual inspection of the pipe exterior at a minimum of two points using one of the methods specified in subparagraph (i)(B)(I)—(IV). If a water system previously conducted a visual inspection of the pipe as part of the initial categorization, the water system shall use different points when completing the validation. When the service line is split, the water system shall conduct at least one visual inspection on each portion of the service line. When the service line is split and only one portion of the service line is included in the validation pool, systems shall conduct at least one point of visual inspection on the unconfirmed portion of the service line.

(C) Validate at least as many service lines as are required in the following table:

<i>Size of validation pool</i>	<i>Number of validations required</i>
<1,500	20% of validation pool
1,500 to 2,000	322
2,001 to 3,000	341
3,001 to 4,000	351
4,001 to 6,000	361
6,001 to 10,000	371
10,001 to 50,000	381
>50,000	384

(iii) If physical access to private property is necessary to complete the validation and the water system is unable to gain access, the system is not required to conduct a validation at that site. The system shall document the attempt and replace the site by randomly selecting a new service line that meets the requirements of subparagraphs (i) and (ii) to conduct the validation.

(iv) Inventory validations shall be completed by December 31, 2034, for water systems subject to the 10-year mandatory service line replacement deadline and for water systems who have reported only nonlead service lines in their inventory, unless a shorter deadline has been established by the Department.

(v) Water systems may make a written request for a waiver of the inventory validation requirements by submitting documentation to the Department demonstrating the system has conducted an inventory validation that meets the requirements specified in subparagraphs (i)—(iii) by November 1, 2027, and obtaining written approval of the waiver from the Department.

(vi) Systems validating service lines in accordance with this paragraph shall submit the following to the Department no later than 30 days after the deadline established under subparagraph (iv):

(A) A list of the locations of any service lines categorized as nonlead that is identified to be a lead or GRR service line as well as the methods used to recategorize the service lines.

(B) The specific version and date of the inventory used to determine the number of nonlead service lines included in the validation pool. The system may not use an inventory older than the date identified in this clause to establish its validation pool.

(vii) Water systems that conduct inventory validation shall meet the requirements of this paragraph and comply with any additional actions required by the Department to address inventory inaccuracies.

(b) *Service line replacement plan.* Water systems with one or more lead, GRR or lead status unknown service lines in their distribution system shall, by November 1, 2027, submit a service line replacement plan to the Department. Water systems approved to operate after May 1, 2027, shall submit the service line replacement plan to the Department within 6 months of submitting the inventory in accordance with subsection (a). The service line replacement plan shall meet the requirements of this subsection and shall be sufficiently detailed to ensure a system is able to comply with the service line inventory requirements in subsection (a) and the service line replacement requirements in accordance with § 109.1110.

(1) The service line replacement plan shall include a description of the following:

(i) A strategy for determining the material composition of lead status unknown service lines in the service line inventory.

(ii) A standard operating procedure for conducting full service line replacement.

(iii) A strategy for informing consumers and customers before a full or partial lead or GRR service line replacement, consistent with the notification and mitigation protocol requirements specified in § 109.1110(e).

(iv) A procedure for consumers and customers to flush service lines and premise plumbing of particulate lead following disturbance of a lead, GRR or lead status unknown service line in accordance with § 109.1104(e) and following full or partial replacement of a lead or GRR service line, consistent with the notification and mitigation protocol requirements specified in § 109.1110(e).

(v) A service line replacement prioritization strategy based on factors including, but not limited to, the targeting of known lead and GRR service lines and community-specific factors, such as populations disproportionately impacted by lead and populations most sensitive to the effects of lead.

(vi) A funding strategy for conducting service line replacements. When the water system intends to charge customers for the cost to replace all or a portion of the service line because it is authorized or required to do so under State or local law or water tariff agreement, the funding strategy shall include a description of whether and how the water system intends to assist customers who are unable to pay to replace the portion of the service line they own.

(vii) A communication strategy to inform residential and nonresidential customers and consumers served by the water system about the service line replacement plan and program.

(viii) Identification of any laws, regulations, water tariff agreements, or combination thereof, that affect the water system's ability to gain access to conduct full lead and GRR service line replacement, including the citation to the specific laws, regulations or water

tariff agreement provisions. This includes identification of any laws, regulations, water tariff agreements, or combination thereof, that require customer consent or require or authorize customer cost-sharing, or both.

(ix) For a water system that identifies lead-lined galvanized service lines in the service line inventory as described in subsection (a), a strategy to determine the extent of the use of lead-lined galvanized service lines in the distribution system and categorize any lead-lined galvanized service lines as lead in accordance with the table under subsection (a)(5)(v).

(x) For a water system that is eligible for and plans to use a deferred deadline for service line replacement in accordance with § 109.1110(a)(10)(iii):

(A) Documentation to support the system's determination that it is eligible for a deferred deadline in accordance with § 109.1110(a)(10)(iii)(A).

(B) Identification of the deferred deadline and the associated cumulative average replacement rate that the system considers to be the fastest feasible, but no slower than the deadline calculated under § 109.1110(a)(10)(iii)(A), as well as the annual number of replacements required, the length of time in years and months and the date of completion for this deadline and rate.

(C) Information supporting the system's determination that replacing lead and GRR service lines by an earlier date and faster rate than provided under the deferred deadline provision in § 109.1110(a)(10)(iii) is not feasible.

(2) The service line replacement plan shall be made accessible to the public. Water systems serving greater than 50,000 persons shall make the plan available to the public online.

(3) Water systems shall annually update the service line replacement plan to include any new or updated information and submit the updates to the Department by January 30, 2029, and annually by January 30 thereafter. The water system shall make the updated plan publicly accessible no later than the deadline to submit the updated plan to the Department.

(i) If there is not new or updated information to include in the service line replacement plan, the water system may certify to the Department that the plan has no updates instead of resubmitting the plan, unless the system is replacing service lines in accordance with a deferred deadline and subparagraph (ii) applies. The certification shall be received by January 30, 2029, and annually by January 30 thereafter.

(ii) If there is not new or updated information to include in the service line replacement plan and the water system is replacing service lines in accordance with a deferred deadline under § 109.1110(a)(10)(iii), every 3 years after the initial submission of the plan, the system shall update the information specified in paragraph (1)(x) to support why the system continues to need the deferred deadline and resubmit the plan to the Department.

(iii) Water systems may provide instructions on how to access the updated plan online instead of providing the entire updated plan to the Department.

(iv) A water system that submits an updated inventory with only nonlead service lines is no longer required to resubmit the service line replacement plan or certify to the Department that the plan has no updates.

(c) *Sample site plan.* Each water system shall develop a sample site plan which includes lead and copper tap sample site locations, WQP sample site locations at the entry point or entry points and in the distribution system, and a copy of the tap sampling protocol that is provided to individuals who are collecting samples. The water system shall complete the steps in paragraphs (1)—(3) and submit the sample site plan to the Department no later than the applicable date to begin lead and copper tap monitoring under § 109.1103 (relating to monitoring requirements) and upon request. The Department may require modifications to submitted sample site plans.

(1) *Identification of tap sampling sites.* Each water system shall identify a pool of tap sampling sites that will allow the water system to collect the minimum number of lead and copper tap samples required in § 109.1103.

(i) Each water system shall use information collected as part of the service line inventory under subsection (a) regarding the material of service lines and connectors to identify sampling tiers according to subparagraph (ii).

(ii) Sampling tiers for lead and copper tap sampling shall be assigned in accordance with clauses (A)—(E), with Tier 1 being the highest tier and Tier 5 being the lowest tier.

(A) Tier 1 sampling sites are single-family structures with premise plumbing made of lead or served by a lead service line, or both. A single-family structure is a building constructed as a single-family residence that is currently used as either a residence or a place of business.

(B) Tier 2 sampling sites are buildings, including multiple-family residences, with premise plumbing made of lead or served by a lead service line, or both.

(C) Tier 3 sampling sites are served by a lead connector, a GRR service line or contain galvanized premise plumbing identified as never having been downstream of a lead service line. Tier 3 for community water systems includes only single-family structures.

(D) Tier 4 sampling sites contain copper premise plumbing with lead solder installed before January 6, 1991, the effective date of the Plumbing System Lead Ban and Notification Act. Tier 4 for community water systems includes only single-family structures.

(E) Tier 5 sampling sites are representative of sites throughout the distribution system. A representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(iii) Water systems shall identify locations in the sample site plan by selecting from sites in the highest tier as defined in subparagraph (ii), unless the site has been found to be unavailable as specified in subparagraph (iv). A system without a large enough number of sites from a higher tier to meet the number of sites required in § 109.1103 may identify sites from the next highest tier. For community water systems where Tier 2 sites comprise at least 20% of the residential structures served by the water system, Tier 2 sites may be sampled even when Tier 1 sites are available.

(iv) Sites are considered unavailable if a customer refuses to participate in sampling or a system has made at least two outreach attempts at a site and has not received a response. The number of unavailable sites from which the system requested customer participation for sampling during the tap sampling period shall be submitted to the Department in accordance with paragraph (4)(ii). Systems may continue conducting outreach at sites considered unavailable and may subsequently add these sites to the sample site plan for any reason, such as receiving a service initiation request from a new property owner or occupant, or receiving a new consumer request for sampling.

(v) A water system that has Tier 1 and Tier 2 sites shall collect all samples for monitoring under § 109.1103 from those sites. A water system that cannot identify enough Tier 1 and Tier 2 sites to meet the minimum number of sites required in § 109.1103 shall collect samples from every available Tier 1 and Tier 2 site, unless a site is unavailable as specified in subparagraph (iv), and collect the remaining samples from the next highest identified tier sites available, as determined in accordance with the tiering requirements under subparagraph (ii).

(vi) A water system that has fewer than five sites with taps that can be used for human consumption meeting the sample site criteria of this paragraph shall collect at least one sample from each tap and then collect additional samples from those taps on different days during the tap sampling period to meet the required number of sites listed in § 109.1103.

(vii) Sample sites cannot include sites with installed POE devices or taps with POU devices designed to remove inorganic contaminants, except at water systems using permitted POE or POU devices to meet other primary and secondary drinking water standards at all service connections as under § 109.1102(d)(4) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements).

(viii) This subparagraph applies to a nontransient noncommunity water system, or community water system that meets the criteria of § 109.1104(a)(2)(i)(I), that has an insufficient number of drinking water taps that meet the 6-hour minimum stagnation time for first-liter or first-liter and fifth-liter paired samples. All samples collected under this

subparagraph shall meet the tap sampling protocol requirements in § 109.1103(a)(4), except for the minimum stagnation period identified in § 109.1103(a)(4)(ii)(D).

(A) The system may apply to the Department, in writing, to request substitution of first-liter or first-liter and fifth-liter paired samples with samples that do not meet the 6-hour minimum stagnation time. The written request shall include documentation identifying the stagnation times and locations for enough samples to meet the required number of sites in § 109.1103.

(B) Upon written approval by the Department, the system shall collect as many first-liter or first-liter and fifth-liter paired samples as possible from interior taps used for consumption. The remaining tap samples needed to meet the required number of sites listed in § 109.1103 shall be collected from the sites with the longest stagnation times and at the times specified in the written request.

(2) *WQP sample sites.*

(i) *WQP distribution system samples.* Sites shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system and seasonal variability. Sites may be at locations targeted for lead and copper tap sampling identified under paragraph (1). Sites used for total coliform sampling under § 109.701(a)(5) (relating to reporting and recordkeeping) may be selected by the system.

(ii) *WQP entry point samples.* Samples collected at the entry points shall be representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at the entry point during periods of normal operating conditions and when water is representative of all sources being used as specified in the comprehensive monitoring plan required under § 109.718 (relating to comprehensive monitoring plan).

(3) *Tap sampling protocol.* The water system shall include in its sample site plan a copy of the tap sampling protocol, which meets the requirements of § 109.1103(a)(4), and that is provided to individuals who are collecting samples. If the water system seeks to modify its sample collection instructions, it shall submit the updated version of the tap sampling protocol to the Department for review prior to the next tap sampling period.

(4) *Sample site plan updates.* A water system that seeks to update the tap sampling protocol, tap sampling locations or WQP sample locations shall update the sample site plan and submit a copy of the updated plan to the Department.

(i) Water systems with lead, GRR or lead status unknown service lines in the service line inventory developed under subsection (a) shall re-evaluate the tap sampling locations used in its sampling pool prior to each round of tap sampling conducted by the system, or annually, whichever is more frequent. If updates to the sample site plan are necessary

following a re-evaluation of tap sample locations, the plan shall be updated and submitted to the Department prior to the start of the next tap sampling period.

(ii) Water systems that cannot identify enough Tier 1 and 2 sampling sites from the current service line inventory to meet the minimum number of sample sites specified in § 109.1103, as required under paragraph (1)(v), shall submit documentation in support of the conclusion that there are an insufficient number of available Tier 1 and Tier 2 sites, including documentation of applicable customer refusals for sampling, prior to the next tap sampling period.

(iii) Water systems with OCCT that make changes to WQP sample locations shall update the sample site plan and submit it to the Department prior to conducting sampling in accordance with the updated plan.

(*Editor's Note: Section 109.1110 is proposed to be added and is printed in regular type to enhance readability.*)

§ 109.1110. Service line and lead connector replacement requirements.

(a) *Mandatory full service line replacement.* Water systems shall replace all lead and GRR service lines under the control of the water system unless the replacement would leave in place a partial lead or GRR service line.

(1) *Program year.* The first mandatory service line replacement program year is from November 1, 2027, to December 31, 2028. Each subsequent program year is on a calendar year basis from January 1 to December 31.

(2) *Identification of authority to access.* This section does not establish the criteria for determining whether a system has access to conduct full service line replacement. Any laws, regulations, water tariff agreements, or combination thereof, to gain access to conduct full service line replacement shall be identified in the service line replacement plan required under § 109.1109(b) (relating to service line and connector inventory, service line replacement plan and sample site plan).

(3) *Access to conduct full service line replacement.* When a water system has access, such as legal access or physical access to conduct full service line replacement, the service line is considered to be under the water system's control. Therefore, the water system shall replace the service line according to this section.

(4) *Lack of access to conduct full service line replacement.* When a water system does not have access to conduct full service line replacement, the water system is not required to replace the line.

(i) The water system shall document the reasons that it does not have access and include any laws, regulations, water tariff agreements, or combination thereof, that affect the

water system's ability to gain access to conduct full replacement of lead and GRR service lines.

(ii) The water system shall submit the documentation required under subparagraph (i) to the Department by January 30, 2029, and annually by January 30 thereafter.

(5) *Reasonable effort to obtain consent.* If property owner consent is needed for a water system to have legal access to conduct full service line replacement, the water system shall make a reasonable effort, as defined in subparagraph (i), to obtain property owner consent. If a water system does not obtain consent after making a reasonable effort to obtain it from a property owner, then the water system is not required to replace any portion of the service line at that address unless there is a change in ownership of the property as described in subparagraph (ii).

(i) A "reasonable effort" shall include at least four attempts to engage the property owner using at least two different methods of communication specified in clauses (A)—(H) before the applicable deadline of mandatory service line replacement described in paragraph (6). The Department may require systems to conduct additional attempts and may require specific outreach methods to be used. Acceptable methods of communication include the following:

- (A) In-person conversation.
- (B) Phone call.
- (C) Text message.
- (D) Email.
- (E) Written letter.
- (F) Postcard.
- (G) Information left at the door such as a door hanger.
- (H) Any other method approved by the Department.

(ii) Within 6 months of any change in ownership of the property, the water system shall offer full service line replacement to the new property owner. Systems may use new service initiation or service transfer to a new customer to identify when there is a change in ownership. Within 1 calendar year of a change in ownership of the property, the system shall make a reasonable effort, as defined in subparagraph (i), to obtain the property owner's consent. If the water system is unable to obtain consent from the current property owner after making a reasonable effort to obtain it, the water system is not required to replace the line. This subparagraph continues to apply until all lead and GRR service lines are replaced.

(iii) The system shall submit to the Department by January 30, 2029, and annually by January 30 thereafter, documentation of each reasonable effort conducted where the system was not able to obtain property owner consent, when consent is required by laws, regulations, water tariff agreements, or any combination thereof.

(6) *Replacement deadline.* Water systems shall begin to implement a mandatory service line replacement program no later than November 1, 2027, and shall replace all lead and GRR service lines under their control no later than December 31, 2037, unless the system is subject to a different deadline under paragraph (10).

(7) *Calculation of the replacement pool.* To calculate the initial replacement pool, systems shall add the total number of lead, GRR and lead status unknown service lines in the service line inventory submitted under § 109.1109(a).

(i) The water system shall include service lines that are not under the control of the system in the replacement pool.

(ii) Annually, at the beginning of each program year, water systems shall update the replacement pool according to the counts of specific types of recategorized service lines in the inventory as follows:

(A) Unknown service lines that are identified as nonlead service lines shall be subtracted from the replacement pool. Unknown service lines that are identified as lead or GRR service lines shall be recategorized appropriately in the inventory and replacement pool, but they do not change the number of service lines in the replacement pool because recategorization does not remove these service lines from the replacement pool.

(B) Nonlead service lines discovered to be lead or GRR service lines shall be added to the replacement pool.

(C) Lead or GRR service lines discovered to be nonlead service lines shall be subtracted from the replacement pool. The water system may not subtract lead or GRR service lines from the replacement pool when they are replaced.

(D) Each entire service line must count only once for purposes of calculating the replacement pool.

(8) *Annual number of replacements required.* To calculate the number of lead and GRR service lines a system is required to replace in a given program year, the number of service lines in the replacement pool calculated at the beginning of each program year shall be divided by the total number of program years remaining until the deadline to complete mandatory service line replacement, as specified under paragraph (6).

(9) *Replacement rate.* Water systems shall meet a minimum cumulative average annual replacement rate for completing mandatory service line replacement in accordance with this paragraph.

(i) *Annual replacement rate.* A water system shall replace lead and GRR service lines at an average annual replacement rate of at least 10%, unless the system is subject to a different replacement deadline under paragraph (10).

(A) A system that has a shortened replacement deadline, as determined under paragraph (10)(i) or (ii), shall replace lead and GRR service lines at an average annual replacement rate calculated by dividing 100 by the number of years needed to meet the shortened deadline determined by the Department, expressed as a percentage.

(B) A system that has a deferred deadline, as determined under paragraph (10)(iii), shall calculate the minimum cumulative average replacement rate by dividing 100 by the number of years needed to achieve replacing 39 annual replacements per 1,000 service connections, expressed as a percentage.

(ii) *Cumulative percent of service lines replaced.* To calculate the cumulative percent of service lines replaced at the end of each mandatory service line replacement program year, water systems shall divide the total number of lead and GRR service lines replaced thus far in the program by the number of service lines within the replacement pool determined under paragraph (7), expressed as a percentage.

(A) When calculating the cumulative average annual replacement rate, water systems may include only full service line replacements of lead or GRR service lines when counting the number of service lines replaced. Whenever the system conducts a replacement of either a portion of or an entire lead or GRR service line, the replacement counts as a full service line replacement only if, after the replacement, the entire service line can be categorized as nonlead in the service line inventory.

(B) For purposes of mandatory service line replacement, systems shall count each entire service line once, including when the service line is split, with a single material categorization as determined under § 109.1109(a)(5).

(C) A full service line replacement is counted when a nonlead service line is installed for use and the lead or GRR service line is disconnected from the water main or other service line. If the lead or GRR service line is disconnected from the water main or system-owned portion of the service line but not removed, the water system shall be subject to a law, regulation, water tariff agreement or have a written policy, or any combination thereof, to preclude the water system from reconnecting the lead or GRR service line to the water main or other service line.

(D) A full service line replacement may be counted when a system physically disconnects a service line that is not in use and the water system does not install a

new nonlead service line because there is no service line in use (for example, at an abandoned property). If the disconnected lead or GRR service line is not removed, the water system shall be subject to a law, regulation, water tariff agreement or have a written policy that precludes the water system from reconnecting the disconnected service line and requires a new nonlead service line be installed if active use is to resume.

(E) Water systems may not count the following as a full service line replacement:

(I) When the service line is partially replaced as defined in § 109.1 (relating to definitions).

(II) When a lead, GRR or unknown service line is determined to be a nonlead service line.

(III) When only a lead connector is replaced.

(IV) When pipe lining or coating technologies are used while the lead or GRR service line remains in use.

(V) When a water system does not replace a lead or GRR service line because it is not under the control of the system.

(iii) *Cumulative average replacement rate.* The annual replacement rate shall be assessed annually as a cumulative average. The first cumulative average replacement rate shall be assessed at the end of the third program year and then annually at the end of each program year thereafter.

(A) The cumulative average replacement rate is calculated by dividing the most recent cumulative percent of service lines replaced, calculated in accordance with subparagraph (ii), by the number of completed program years.

(B) For each program year it is required to be calculated, the cumulative average replacement rate must be greater than or equal to the annual replacement rate as defined in subparagraph (i).

(C) A water system is not required to meet the cumulative average replacement rate if all of the following conditions are met:

(I) After November 1, 2027, the system has replaced all lead and GRR service lines in the replacement pool, as determined under paragraph (7), that are under the control of the system.

(II) All unknown service lines in the inventory have been identified.

(III) The system has documented and submitted to the Department the reasons the system currently does not have access to conduct full replacement of the remaining lead and GRR service lines in the replacement pool as specified in paragraph (4). When lead and GRR service lines come under the control of the system, the water system is required to replace the service lines. This subclause continues to apply until all lead and GRR service lines are replaced.

(D) For a system that has a shortened replacement deadline, as determined under paragraph (10)(i), the first cumulative average replacement rate shall be assessed at the end of the program year that is at least 1 year after the shortened deadline determination. If the shortened replacement deadline is less than 3 years, the cumulative average replacement rate shall be assessed on a schedule determined by the Department.

(10) *Shortened and deferred replacement deadlines.* A water system may complete mandatory service line replacement under a shortened or deferred deadline as specified in this paragraph.

(i) When the Department determines that a shortened replacement deadline is feasible for a water system based on the number of lead and GRR service lines in a system's inventory, the system shall replace service lines by the Department-determined deadline and by a faster minimum replacement rate in accordance with paragraph (9)(i)(A).

(A) The Department will make this determination in writing and notify the system of its finding.

(B) A shortened deadline may be established at any time throughout a system's replacement program if the Department determines a shorter deadline is feasible.

(ii) A water system with lead or GRR service lines that can complete full service line replacements in 5 years or less in accordance with this subparagraph, can defer installing or reoptimizing OCCT.

(A) A water system is not required to complete the steps under § 109.1102(b)(2.1) and (2.2) (relating to lead and copper action levels, 90th percentile calculation and treatment technique requirements) if the system meets all the requirements listed in subclauses (I)—(III).

(I) A water system shall meet the following applicable deadlines to complete mandatory service line replacement:

(-a-) A water system shall complete the service line replacement requirements in 5 years or less from the date of the end of the tap sampling period in which the system first exceeds the lead action level.

(-b-) A large water system without CCT shall complete the service line replacement requirements in 5 years or less from the date of the end of the tap sampling period in which the system's 90th percentile results first exceed the lead PQL.

(-c-) Any water system with less than 5 years remaining to complete mandatory service line replacements shall complete the service line replacements by December 31, 2037, unless a shortened deadline has been required under subparagraph (i).

(II) At a minimum, a water system shall replace lead and GRR service lines each year at an annual rate calculated in accordance with paragraph (9)(i)(A). For purposes of calculating the annual rate, the system shall replace all lead and GRR service lines remaining in the system's inventory at the tap sampling period end date in which the system first exceeds the lead action level or in which the system first exceeds the lead PQL.

(III) By the end of the 5-year-or-less period in subclause (I), the system shall have replaced all lead and GRR service lines in their replacement pool calculated in accordance with paragraph (7), identified the material of all lead status unknown service lines, completed the inventory validation requirements in accordance with § 109.1109(a)(11), and replaced all unknown status lines found to be lead or GRR service lines.

(B) A water system that does not meet the requirements specified in clause (A) shall meet the requirements under § 109.1102(b)(2.1) or (2.2), as applicable, starting immediately after the system fails to meet the annual removal requirements under clause (A)(II).

(C) Water systems with CCT shall continue to operate and maintain CCT while completing the mandatory service line replacement requirements in this subparagraph.

(D) At the end of each year of the 5-year-or-less period, the system shall submit written documentation to the Department that includes the number of lead and GRR service lines removed that year, and whether the minimum annual replacement rate in clause (A)(II) was met.

(E) After completing service line replacement in accordance with the requirements of this subparagraph, if the system either exceeds the lead action level or the lead PQL at the end of a subsequent tap sampling period, whichever is applicable, a water system shall meet the requirements under § 109.1102(b)(2.1) or (2.2).

(iii) A water system may defer service line replacement past the mandatory deadline to replace all lead and GRR service lines under their control no later than December 31, 2037, if the system meets the following criteria:

(A) If a water system replacing 10% of the total number of known lead and GRR service lines in a system's replacement pool results in an annual number of service line replacements by the water system that exceeds 39 per 1,000 service connections, the system may complete replacement of all lead and GRR service lines by a deadline that corresponds to the system conducting 39 annual replacements per 1,000 service connections at a cumulative average replacement rate assessed in accordance with paragraph (9)(iii). This subparagraph is also applicable if a water system with service lines newly under their control, after previously not having control, is required to conduct more than 39 annual replacements per 1,000 service connections.

(I) The number of annual replacements corresponding to 39 annual replacements per 1,000 service connections is calculated by multiplying the number of service connections in a system by 0.039.

(II) The number of years needed to complete replacement is the total number of known lead and GRR service lines in a system's replacement pool divided by the number of annual replacements calculated under subclause (I).

(B) A water system that is eligible for and plans to use a deferred deadline shall include information in the system's initial service line replacement plan and subsequent updates to the plan in accordance with § 109.1109(b)(1)(x). The system shall identify an annual replacement rate that is no less than 39 annual replacements per 1,000 service connections.

(C) As soon as practicable, but no later than the end of the second program year and every 3 years thereafter, the Department will determine in writing whether the deferred deadline and associated cumulative average replacement rate the system documented in the service line replacement plan are the fastest feasible to conduct mandatory service line replacement and either approve the continued use of this deferred deadline and replacement rate as the fastest feasible for the system, or set a shorter deferred deadline and identify an associated replacement rate to ensure the system is replacing service lines at the fastest feasible rate for the system. The Department will consider information that includes, but is not limited to, the system's submissions of the service line inventory and replacement plan in accordance with § 109.1109 and information collected from other water systems conducting mandatory service line replacement. The Department may require the system to provide additional information to consider in its assessment of the continued use of a deferred deadline and the fastest feasible replacement rate.

(D) In the first 2 program years, the system shall comply with the annual replacement rate identified in its initial service line replacement plan, unless the Department determines a faster rate is feasible sooner. In subsequent program years, the system shall comply with the applicable deferred deadline and associated replacement rate identified in the Department's written determination of the deadline and replacement rate in clause (C).

(11) *Discovery of lead or GRR service line.* If a lead or GRR service line is discovered when the system's inventory is comprised of only nonlead service lines, the system shall complete the following requirements:

(i) Update the replacement pool calculated under paragraph (7).

(ii) Conduct a full service line replacement of the affected service line as soon as practicable, but no later than 180 days after the date the service line is discovered.

(A) When a system determines that it is not practicable to conduct full service line replacement within 180 days after the date of discovery, such as freezing ground conditions, the system may request Department approval for an extension of no later than 1 year after the date the service line was discovered to replace the affected service line.

(B) The request for an extension shall be made no later than 90 days after the date of discovery of the affected service line.

(b) *Replacement of lead connectors when encountered by a water system.*

(1) The water system shall replace a lead connector when encountered during planned or unplanned water system infrastructure work, unless the connector is not under the control of the system, such as when the system does not have and cannot obtain access to conduct the connector replacement.

(i) Upon replacement of a connector that is attached to a lead or GRR service line, the water system shall follow risk mitigation measures for disturbances as specified in § 109.1104(e)(2) (relating to public education and notification, supplemental monitoring and mitigation requirements).

(ii) Following replacement of a lead connector, the water system shall update the information on the connector material and location in its inventory in accordance with § 109.1109(a)(4).

(2) The water system shall comply with any laws, regulations, water tariff agreements, or any combination thereof, that require additional connectors to be replaced.

(c) *Customer-initiated service line replacement.* If any laws, regulations, water tariff agreements, or any combination thereof, do not prevent customers from conducting partial lead or GRR service line replacements, the water system shall meet the following requirements:

(1) If the water system is notified by the customer that the customer intends to conduct a partial lead or GRR service line replacement, the water system shall:

(i) Replace the remaining portion of the lead or GRR service line at the same time as, or as soon as practicable after the customer-initiated replacement, but no later than 45 days from the date the customer conducted the partial replacement.

(ii) Provide notification and risk mitigation measures in accordance with subsection (e), as applicable, before the affected service line is returned to service.

(iii) Notify the Department within 30 days if it cannot meet the deadline in subparagraph (i) and complete the replacement no later than 180 days from the date the customer conducted the partial replacement.

(2) If the water system is notified or otherwise learns that a customer-initiated replacement occurred within the previous 6 months and left in place the system-owned portion of a lead or GRR service line, the water system shall:

(i) Replace any remaining portion of the affected service line within 45 days from the day of becoming aware of the customer-initiated replacement.

(ii) Provide notification and risk mitigation measures in accordance with subsection (e) within 24 hours of becoming aware of the customer replacement.

(iii) Notify the Department within 30 days if it cannot meet the deadline in subparagraph (i) and complete the replacement no later than 180 days from the date the system learns of the customer-initiated replacement.

(3) When a water system is notified or otherwise learns of a customer-initiated replacement of a lead or GRR service line that occurred more than 6 months in the past, the water system is not required to complete the lead or GRR service line replacement of the system-owned portion according to this subsection. The remaining portion of the lead or GRR service line shall be identified in the inventory in accordance with § 109.1109(a) and replaced in accordance with subsection (a).

(d) *Requirements for conducting partial service line replacements.* Water systems are prohibited from conducting a partial lead or GRR service line replacement, as defined under § 109.1, unless it is conducted as part of an emergency repair or in coordination with planned infrastructure work that impacts service lines, excluding planned infrastructure work solely for the purposes of lead or GRR service line replacement. When a water system has access to conduct full service line replacement as specified in subsection (a), the water system shall fully replace the service line. When a water system meets the criteria of this subsection and conducts a partial service line replacement, the following requirements shall be met:

(1) The system shall comply with the notification and mitigation requirements specified in subsection (e).

(2) The system shall include a dielectric coupling separating the remaining service line and the newly installed service line to prevent galvanic corrosion unless the replaced service line is made of plastic.

(e) *Protocols for notification and mitigation for full and partial service line replacements.* Water systems shall comply with the requirements identified in paragraphs (1)—(4) for full and partial lead or GRR service line replacement in accordance with the time frames in paragraph (5).

(1) Provide written notification that meets the following requirements:

(i) Explains that consumers may experience a temporary increase of lead levels in their drinking water due to the replacement.

(ii) Meets the content requirements of 40 CFR 141.85(a)(1)(ii)—(iv) (relating to public education and supplemental monitoring and mitigation requirements).

(iii) Includes contact information for the water system.

(iv) When multifamily dwellings or multiple nonresidential occupants are served by the affected service line, the water system may elect to post the information at a conspicuous location instead of providing individual written notification to all persons served in residential and nonresidential units.

(2) Provide a written procedure for consumers to flush service lines and premise plumbing of particulate lead following the replacement of a lead or GRR service line.

(3) Provide the consumer with a pitcher filter or POU device that is ANSI certified to reduce lead, 6 months of replacement cartridges and instructions for use. If the affected service line serves more than one residential or nonresidential unit, such as a multiunit building, the water system shall provide a pitcher filter or POU device, 6 months of replacement cartridges and use instructions to every residential and nonresidential unit in the building.

(4) Offer to the consumer to collect a follow-up tap sample for lead between 3 months and 6 months after completion of any full or partial replacement of a lead or GRR service line. Follow-up samples shall be collected after at least 6 hours of stagnation, following the tap sampling protocol under § 109.1103(a)(4) (relating to monitoring requirements). The water system shall provide the results of the sample to the consumer in accordance with § 109.1104(b).

(i) Following a full replacement, the tap sample shall be a first-liter sample.

(ii) Following a partial replacement, the tap sample shall be first-liter and fifth-liter paired samples.

(5) Water systems shall comply with the following time frames for providing notification and mitigation protocols for full and partial lead or GRR service line replacements.

(i) *Full service line replacement.* A water system that conducts a full lead or GRR service line replacement shall meet notification and mitigation requirements in accordance with the following time frames:

(A) Provide written notification as specified in paragraph (1) to the persons served by the affected service line before the affected service line is returned to service and to the owner or the owner's authorized agent, no later than 30 days following completion of the replacement.

(B) Meet the notification and mitigation requirements specified in paragraphs (2) and (3) before the affected service line is returned to service.

(C) Meet the follow up tap sampling requirements in accordance with the time frames specified in paragraph (4).

(ii) *Planned partial service line replacement.* Whenever a water system plans to partially replace a lead or GRR service line in coordination with planned infrastructure work that impacts service lines, the water system shall meet notification and mitigation requirements in accordance with the time frames specified in clauses (A)—(C). If property owner consent is needed for a water system to have legal access to conduct full service line replacement, the water system shall make a reasonable effort to obtain property owner consent to replace the remaining portion of the service line in accordance with subsection (a)(5). The reasonable effort shall be completed before the partial service line replacement.

(A) Provide written notification as specified in paragraph (1) to the property owner, or the owner's authorized agent, as well as consumers served by the affected service line at least 45 days prior to the replacement.

(B) Meet the notification and mitigation requirements specified in paragraphs (2) and (3) before the affected service line is returned to service.

(C) Meet the follow up tap sampling requirements in accordance with the time frames specified in paragraph (4).

(iii) *Emergency partial service line replacement.* A water system that conducts a partial replacement of a lead or GRR service line due to an emergency repair shall comply with the following requirements:

(A) Provide notification and mitigation measures as specified in paragraphs (1)—(3) to the persons served by the affected service line before it is returned to service.

(B) Meet the follow up tap sampling requirements in accordance with the time frames specified in paragraph (4).

(C) Offer to the property owner, or the owner's authorized agent, to replace the partial service line created by the emergency repair within 45 days.

(f) *Reporting to demonstrate compliance to the Department.* To demonstrate compliance with subsections (a)—(e), a water system shall report to the Department the information identified in this subsection. This information shall be provided in writing by January 30, 2029, and annually by January 30 thereafter, unless an alternate time frame is specified.

(1) Water systems conducting mandatory service line replacement in accordance with subsection (a) shall submit the following information to the Department:

(i) Information from the most recent updated inventory submitted under § 109.1109(a), in accordance with the table provided under § 109.1109(a)(5)(v):

(A) The total number of lead service lines in the inventory.

(B) The total number of GRR service lines in the inventory.

(C) The total number of lead status unknown service lines in the inventory.

(D) The total number of nonlead service lines in the inventory.

(E) The total number of lead connectors in the inventory.

(F) The total number of connectors of unknown material in the inventory.

(G) When ownership of the service line is shared, the system shall report the information in clauses (A)—(F) counting each full service line only once.

(ii) The total number of full lead service line replacements and full GRR service line replacements that have been conducted in the preceding program year and the address associated with each replaced service line.

(iii) The total number of partial lead service line replacements and partial GRR service line replacements that have been conducted in the preceding program year and the address associated with each partially replaced service line.

(iv) The total number of lead connectors that have been replaced or removed in the preceding program year and the address associated with each replaced or removed lead connector.

(v) The number of service lines in the replacement pool updated at the beginning of the preceding program year in accordance with subsection (a)(7).

(vi) The total number of lead status unknown service lines determined to be nonlead in the preceding program year.

(vii) The address of each service line categorized as nonlead discovered in the preceding program year to be a lead or GRR service line and the methods originally used to categorize the material of the service line.

(viii) The applicable deadline for completion of service line replacement and the expected date of completion of service line replacement.

(ix) The total number of lead and GRR service lines not replaced because the system does not have access to conduct full service line replacement.

(2) The water system shall certify to the Department that it replaced any encountered lead connectors in accordance with subsection (b) or that it encountered no lead connectors during the program year.

(3) The water system shall certify that it completed all customer-initiated lead and GRR service line replacements in accordance with subsection (c).

(4) The water system shall certify to the Department that it conducted the notification and mitigation requirements for any partial and full service line replacements in accordance with subsection (e) or that it conducted no replacements of lead or GRR service lines during the program year.

(5) A system that collects samples following a partial or full lead or GRR service line replacement required under subsection (e)(4) shall report the results to the Department within the first 10 days following the month in which the system receives the results, or as specified by the Department. Systems shall also report any additional information as specified by the Department, and in a time and manner prescribed by the Department, to verify that all partial lead and GRR service line replacement activities have taken place. Follow-up lead samples collected due to monitoring after service line replacement in accordance with this section may not be included in the 90th percentile calculation.



Pennsylvania
**Department of
Environmental Protection**

September 14, 2026

David Sumner
Executive Director
Independent Regulatory Review Commission
555 Walnut Street, Suite 804
Harrisburg, PA 17101

Re: Proposed Rulemaking: Safe Drinking Water Revised Lead and Copper Rule Improvements
(#7-576)

Dear Mr. Sumner:

Pursuant to Section 5(a) of the Regulatory Review Act, please find enclosed a copy of the Safe Drinking Water Revised Lead and Copper Rule Improvements proposed rulemaking for review by the Independent Regulatory Review Commission (Commission). The Environmental Quality Board adopted this rulemaking on June 9, 2026. This proposal is scheduled for publication in the *Pennsylvania Bulletin* on September 26, 2026, with a 60-day public comment period ending on November 25, 2026.

The proposed rulemaking strengthens regulations to reduce lead and copper in drinking water provided by public water systems, including: requiring water systems to develop and complete a service line inventory to locate lead pipes in their distribution system and replace all lead service lines; lowering the lead action level; expanding corrosion control treatment requirements; improving tap sampling; monitoring lead in the drinking water of schools and child care facilities; increasing public education; and adding requirements to reduce lead exposure.

To retain primary enforcement responsibility (primacy) for public water systems in Pennsylvania under the federal Safe Drinking Water Act, the Department must adopt all new and revised National Primary Drinking Water Regulations. This rulemaking would allow the Department to retain primacy by ensuring that Pennsylvania's regulations are at least as stringent as those promulgated by the United States Environmental Protection Agency in the National Primary Drinking Water Regulations for Lead and Copper: Improvements, also known as the Lead and Copper Rule Improvements.

As set forth in the Regulatory Review Act, the Department will consider any comments and recommendations made by the Commission, as well as the House Environmental and Natural Resource Protection Committee, the Senate Environmental Resources and Energy Committee and the public, prior to final adoption of the enclosed rulemaking.

Mr. David Sumner

- 2 -

September 14, 2026

Please contact me by e-mail at laurcampbe@pa.gov or by telephone at 717.772.5830 if you have any questions or need additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Laura Campbell". The signature is fluid and cursive, with the first name "Laura" being more prominent than the last name "Campbell".

Laura Campbell
Regulatory Coordinator

Enclosures

From: [Eyster, Emily](#)
To: [Campbell, Laura](#); [Osenbach, Matt](#)
Cc: [Troutman, Nick](#); [Imgrund, Lauren](#); [Nezat, Taylor](#); [Reiley, Robert A.](#); [Griffin, Laura](#)
Subject: Re: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)
Date: Monday, September 14, 2026 9:54:26 AM
Attachments: [image001.png](#)

RECEIVED

Independent Regulatory
Review Commission

Received. Thanks Laura!

September 14, 2026

Emily Eyster
Legislative Director, Office of Senator Carolyn T. Comitta
Executive Director, Senate Environmental Resources and Energy Committee
Cell: (717) 756-4702
Phone: (717) 787-5709
www.pasenatorcomitta.com

From: Campbell, Laura <laurcampbe@pa.gov>
Sent: Monday, 14 September 2026 09:33:00
To: Eyster, Emily <emily.eyster@pasenate.com>; Osenbach, Matt <mosenbach@pasen.gov>
Cc: Troutman, Nick <ntroutman@pasen.gov>; Imgrund, Lauren <limgrund@pa.gov>; Nezat, Taylor <tnezat@pa.gov>; Reiley, Robert A. <rreiley@pa.gov>; Griffin, Laura <laurgriffi@pa.gov>
Subject: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)

EXTERNAL EMAIL

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Safe Drinking Water Revised Lead and Copper Rule Improvements proposed rulemaking (7-576) for review by the Senate Environmental Resources and Energy Committee. The rulemaking documents are attached in a zip folder and the cover letters for Senator Yaw and Senator Comitta are attached separately.

A copy of the transmittal sheet is attached for your records – the House and Senate Committee chairs are receiving the rulemaking electronically.

Please confirm receipt of this rulemaking by replying to all recipients.

Thank you,

Laura



Laura Campbell | Regulatory Coordinator | *She/Her/Hers*

Department of Environmental Protection | Policy Office

Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17105
Mobile: 717-772-5830
dep.pa.gov

RECEIVED

Independent Regulatory
Review Commission

September 14, 2026

PRIVILEGED AND CONFIDENTIAL COMMUNICATION The information transmitted is intended only for the person or entity to whom it is addressed and may contain confidential and/or privileged material. Any use of this information other than by the intended recipient is prohibited. If you receive this message in error, please send a reply e-mail to the sender and delete the material from any and all computers.

This message and any attachment may contain privileged or confidential information intended solely for the use of the person to whom it is addressed. If the reader is not the intended recipient then be advised that forwarding, communicating, disseminating, copying or using this message or its attachments is strictly prohibited. If you receive this message in error, please notify the sender immediately and delete the information without saving any copies.

From: [Marisa Thomas](#)
To: [Campbell, Laura](#); [Franzese, Evan B.](#); [Shupe, Hayley](#)
Cc: [Imgrund, Lauren](#); [Griffin, Laura](#); [Nezat, Taylor](#); [Reiley, Robert A.](#)
Subject: RE: [EXTERNAL]: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)
Date: Monday, September 14, 2026 9:41:32 AM
Attachments: [image001.png](#)

RECEIVED

Independent Regulatory
Review Commission

September 14, 2026

Received.

Marisa Thomas

Administrative Assistant II

Office of State Representative Brenda Pugh

120th Legislative District

422 Irvis Office Building

Harrisburg, PA 17120-2092

Phone: (717) 787-3798

Office of State Representative Jack Rader

176th Legislative District

423 Irvis Office Building

Harrisburg, PA 17120-2176

Phone: (717) 787-7732

From: Campbell, Laura

Sent: Monday, September 14, 2026 9:33 AM

To: Marisa Thomas ; Franzese, Evan B. ; Shupe, Hayley

Cc: Imgrund, Lauren ; Griffin, Laura ; Nezat, Taylor ; Reiley, Robert A.

Subject: [EXTERNAL]: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)

Importance: High

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Safe Drinking Water Revised Lead and Copper Rule Improvements proposed rulemaking (7-576) for review by the House Environmental and Natural Resource Protection Committee.

The rulemaking documents are attached in a zip folder and the cover letters for Representative Vitali and Representative Rader are attached separately.

A copy of the transmittal sheet is attached for your records – the House and Senate Committee chairs are receiving the rulemaking electronically.

Please confirm receipt of this rulemaking by replying to all recipients.

Thank you,

Laura



Laura Campbell | Regulatory Coordinator | *She/Her/Hers*
Department of Environmental Protection | Policy Office

Rachel Carson State Office Building

400 Market Street | Harrisburg, PA 17105

Mobile: 717-772-5830

dep.pa.gov

PRIVILEGED AND CONFIDENTIAL COMMUNICATION The information transmitted is

From: [Shupe, Hayley](#)
To: [Campbell, Laura](#); [Marisa Thomas](#); [Franzese, Evan B.](#)
Cc: [Imgrund, Lauren](#); [Griffin, Laura](#); [Nezat, Taylor](#); [Reiley, Robert A.](#)
Subject: Re: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)
Date: Monday, September 14, 2026 9:50:54 AM
Attachments: [image001.png](#)

RECEIVED

Received.

Independent Regulatory
Review Commission

Thank you!

September 14, 2026

Hayley Shupe

Legislative Assistant | PA House Democratic Caucus

Representative Greg Vitali | District 166

30 East Wing | PO Box 202166 | Harrisburg PA, 17120

Phone: (717)-787-7647 | **email:** hshupe@pahouse.net

"Our greatest glory is not in never failing, but in rising up every time we fail." - R.W.E

From: Campbell, Laura

Sent: Monday, September 14, 2026 9:32 AM

To: Marisa Thomas ; Franzese, Evan B. ; Shupe, Hayley

Cc: Imgrund, Lauren ; Griffin, Laura ; Nezat, Taylor ; Reiley, Robert A.

Subject: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Safe Drinking Water Revised Lead and Copper Rule Improvements proposed rulemaking (7-576) for review by the House Environmental and Natural Resource Protection Committee.

The rulemaking documents are attached in a zip folder and the cover letters for Representative Vitali and Representative Rader are attached separately.

A copy of the transmittal sheet is attached for your records – the House and Senate Committee chairs are receiving the rulemaking electronically.

Please confirm receipt of this rulemaking by replying to all recipients.

Thank you,

Laura



Laura Campbell | Regulatory Coordinator | *She/Her/Hers*
Department of Environmental Protection | Policy Office

Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17105
Mobile: 717-772-5830
dep.pa.gov

PRIVILEGED AND CONFIDENTIAL COMMUNICATION The information transmitted is intended only for the person or entity to whom it is addressed and may contain confidential and/or privileged material. Any use of this information other than by the intended recipient is prohibited. If you receive this message in error, please send a reply e-mail to the sender

From: [Bulletin](#)
To: [Campbell, Laura](#)
Cc: [Imgrund, Lauren](#); [Griffin, Laura](#); [Reiley, Robert A.](#); [Adeline E. Gaydosh](#); [A.J. Mendelsohn](#)
Subject: [External] Re: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)
Date: Monday, September 14, 2026 11:08:24 AM
Attachments: [image001.png](#)

ATTENTION: This email message is from an external sender. Do not open attachments or click links from unknown senders. To report suspicious email, use the [Report Phish button](#) in Outlook.

Good morning, Laura,

Confirming receipt and publication in the 9/26 issue of the *Pennsylvania Bulletin*.

Have a good day!

Adeline

Adeline Gaydosh | Legal Assistant

agaydosh@palrb.us | 717.783.3984

Legislative Reference Bureau

Pennsylvania Code & Bulletin Office

647 Main Capitol Building

Harrisburg, PA 17120

RECEIVED

Independent Regulatory
Review Commission

September 14, 2026

From: Campbell, Laura <laurcampbe@pa.gov>
Sent: Monday, September 14, 2026 10:05 AM
To: Bulletin <bulletin@palrb.us>; A.J. Mendelsohn <amendelsohn@palrb.us>; Adeline E. Gaydosh <agaydosh@palrb.us>
Cc: Imgrund, Lauren <limgrund@pa.gov>; Griffin, Laura <laurgriffi@pa.gov>; Reiley, Robert A. <rreiley@pa.gov>
Subject: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Safe Drinking Water Revised Lead and Copper Rule Improvements proposed rulemaking (7-576). The rulemaking documents are attached in a zip folder. This is the official filing of proposed rulemaking 7-576. Preamble and annex files were provided on August 21, 2026, for initial processing.

A copy of the transmittal sheet is attached for your records – the House and Senate Committee chairs are receiving the rulemaking electronically.

Please confirm receipt of this rulemaking by replying to all recipients.

Thank you,

Laura

RECEIVED

Independent Regulatory
Review Commission

September 14, 2026



Laura Campbell | Regulatory Coordinator | *She/Her/Hers*
Department of Environmental Protection | Policy Office

Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17105
Mobile: 717-772-5830
dep.pa.gov

PRIVILEGED AND CONFIDENTIAL COMMUNICATION The information transmitted is intended only for the person or entity to whom it is addressed and may contain confidential and/or privileged material. Any use of this information other than by the intended recipient is prohibited. If you receive this message in error, please send a reply e-mail to the sender and delete the material from any and all computers.

From: [Osenbach, Matt](#)
To: [Campbell, Laura](#); [Eyster, Emily](#)
Cc: [Troutman, Nick](#); [Imgrund, Lauren](#); [Nezat, Taylor](#); [Reiley, Robert A.](#); [Griffin, Laura](#)
Subject: RE: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)
Date: Monday, September 14, 2026 9:51:06 AM
Attachments: [image001.png](#)

RECEIVED

Good morning,

Independent Regulatory
Review Commission

Message received.

September 14, 2026

Thanks Laura!

Matt Osenbach
Director, Environmental Resources & Energy Committee
Office of State Senator Gene Yaw (R-23)
362 Main Capitol Building, Senate Box 203023
Harrisburg, PA 17120
T: (717) 787-3280
F: (717) 772-0575
www.SenatorGeneYaw.com

Sign up to receive Sen. Yaw's E-Newsletter [HERE](#).

[Email Disclaimer Policy - This email and any files transmitted with it are intended solely for the use of the individual or entity to whom they are addressed. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.]

From: Campbell, Laura <laurcampbe@pa.gov>
Sent: Monday, September 14, 2026 9:33 AM
To: Eyster, Emily <emily.eyster@pasenate.com>; Osenbach, Matt <mosenbach@pasen.gov>
Cc: Troutman, Nick <ntroutman@pasen.gov>; Imgrund, Lauren <limgrund@pa.gov>; Nezat, Taylor <tnezat@pa.gov>; Reiley, Robert A. <rreiley@pa.gov>; Griffin, Laura <laurgriffi@pa.gov>
Subject: Delivery of Proposed Rulemaking - Safe Drinking Water Revised Lead and Copper Rule Improvements (7-576)
Importance: High

ⓘ CAUTION : External Email ⓘ

This Message Is From an External Sender

This message came from outside your organization.

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Safe Drinking Water Revised Lead and Copper Rule Improvements proposed rulemaking (7-

576) for review by the Senate Environmental Resources and Energy Committee. The rulemaking documents are attached in a zip folder and the cover letters for Senator Yaw and Senator Comitta are attached separately.

A copy of the transmittal sheet is attached for your records – the House and Senate Committee chairs are receiving the rulemaking electronically.

Please confirm receipt of this rulemaking by replying to all recipients.

Thank you,

Laura



RECEIVED

Independent Regulatory
Review Commission

September 14, 2026

Laura Campbell | Regulatory Coordinator | *She/Her/Hers*
Department of Environmental Protection | Policy Office

Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17105
Mobile: 717-772-5830
dep.pa.gov

PRIVILEGED AND CONFIDENTIAL COMMUNICATION The information transmitted is intended only for the person or entity to whom it is addressed and may contain confidential and/or privileged material. Any use of this information other than by the intended recipient is prohibited. If you receive this message in error, please send a reply e-mail to the sender and delete the material from any and all computers.

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE
REGULATORY REVIEW ACT**

I.D. NUMBER: 7-576

SUBJECT: SAFE DRINKING WATER REVISED LEAD AND COPPER RULE
IMPROVEMENTS

AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

RECEIVED

Independent Regulatory
Review Commission

TYPE OF REGULATION

September 14, 2026

X Proposed Regulation

Final Regulation

Final Regulation with Notice of Proposed Rulemaking Omitted

120-day Emergency Certification of the Attorney General

120-day Emergency Certification of the Governor

Delivery of Tolled Regulation

a. With Revisions

b.

Without Revisions

FILING OF REGULATION

DATE

SIGNATURE

DESIGNATION

*HOUSE COMMITTEE ON ENVIRONMENTAL & NATURAL
RESOURCE PROTECTION*

9.14.2026

Hayley Shupe

(via electronic delivery)

MAJORITY CHAIR

Representative Greg Vitali

9.14.2026

Marisa Thomas

(via electronic delivery)

MINORITY CHAIR

Representative Jack Rader, Jr.

*SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES
AND ENERGY*

9.14.2026

Matt Osenbach

(via electronic delivery)

MAJORITY CHAIR

Senator Gene Yaw

9.14.2026

Emily Eyster

(via electronic delivery)

MINORITY CHAIR

Senator Carolyn Comitta

INDEPENDENT REGULATORY REVIEW COMMISSION

EXECUTIVE DIRECTOR

David Sumner

(via electronic delivery)

~~ATTORNEY GENERAL (for Final Omitted only)~~

9.14.2026

Adeline Gaydosh

(via electronic delivery)

LEGISLATIVE REFERENCE BUREAU (for Proposed only)