



# **Lead and Copper Rule**

## **2007 Short-Term Regulatory**

## **Revisions and Clarifications**

## **State Implementation Guidance**

Office of Water (4606M)  
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# LIST OF ACRONYMS AND ABBREVIATIONS

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AL	Action Level
ANSI	American National Standards Institute
CCR	Consumer Confidence Report
CCT	Corrosion Control Treatment
CFR	Code of Federal Regulations
Cu	Copper
CWS	Community Water System
CY	Calendar Year
EPA	Environmental Protection Agency
EPTDS	Entry Point to the Distribution System
FR	Federal Register
GWUDI	Ground Water under the Direct Influence of Surface Water
LCR	Lead and Copper Rule
LCRMR	Lead and Copper Rule Minor Revisions
LSL	Lead Service Line
LSLR	Lead Service Line Replacement
M/R	Monitoring and Reporting (Violation)
MCLG	Maximum Contaminant Level Goal
mg/L	Milligrams per Liter
MPL	Maximum Permissible Level
NPDWR	National Primary Drinking Water Regulation
NTNCWS	Non-Transient Non-Community Water System
OCCT	Optimal Corrosion Control Treatment
OGC	Office of General Counsel
OGWDW	Office of Ground Water and Drinking Water
ORC	Office of Regional Counsel
OWQP	Optimal Water Quality Parameter
Pb	Lead
PE	Public Education
ppb	parts per billion
POE	Point-of-Entry (Treatment)
POU	Point-of-Use (Treatment)
PSA	Public Service Announcement
PWS	Public Water System
PWSS	Public Water System Supervision (Program)
RC	Regional Counsel
SDWA	Safe Drinking Water Act
SDWIS/ODS	Safe Drinking Water Information System/Operational Data System
SNC	Significant Non-Compliance or Significant Non-Complier
SOWT	Source Water Treatment
TT	Treatment Technique (Violation)
WIC	Women, Infants, and Children Program
WQP	Water Quality Parameter
XML	Extensible Markup Language

# INTRODUCTION

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This document provides guidance to U.S. Environmental Protection Agency (EPA) Regions, States and Tribes exercising primary enforcement responsibility under the Safe Drinking Water Act (SDWA) regarding implementation of the October 10, 2007, Lead and Copper Rule Short-Term Regulatory Revisions and Clarifications (hereafter referred to as the “Short-Term Revisions”). It also provides guidance to the public and the regulated community regarding EPA’s interpretation of the statute and regulations. This guidance is designed to implement national policy on these issues.

The SDWA provisions and EPA regulations described in this document contain legally-binding requirements. This document does not substitute for those requirements, nor is it a regulation itself. It does not impose legally-binding requirements on EPA, States, Tribes, or the regulated community and may not apply to a particular situation based upon the circumstances. EPA and State decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance, where appropriate. Any decisions regarding a particular facility will be made based on the applicable statutes and regulations. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this guidance to a particular situation. EPA will then consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation based on the law and regulations. EPA may change this guidance in the future.

This manual contains the following sections:

- **Section I - Overview**, explains the purpose of the Short-Term Revisions, the regulatory history of the Lead and Copper Rule (LCR), the development and benefits of the Short-Term Revisions, their effective and compliance dates, and key dates for implementation and State and Tribal adoption of the Short-Term Revisions.
- **Section II - Rule Requirements**, provides a detailed explanation of the seven major areas that were targeted by the Short-Term Revisions and those revisions that EPA considered but did not promulgate. This section also includes examples to help clarify these Short-Term Revisions.
- **Section III - State Reporting Requirements and SNC Definitions** highlights the new State reporting requirement and provides an overview of LCR significant non-complier (SNC) definitions.
- **Section IV - Revisions by Rule Section**, summarizes the Short-Term Revisions by federal rule.
- **Section V - Primacy Revision Application for the LCR Short-Term Revisions** includes a detailed timetable for the application review and approval process.

The appendices of this document also provide information that will be useful to States, Tribes and EPA Regions throughout the primacy revision application process.

- **Appendix A** contains the primacy revision application crosswalk for the Rule.
- **Appendix B** contains a comparison of the Short-Term Revisions against the previous version of the LCR using the redline (or red text) and strikeout features of MS Word.

- **Appendix C** contains fact sheets that explain the Short-Term Revisions.
- **Appendix D** provides a sample lead consumer notice certification form that States and systems may adapt for their use.
- **Appendix E** includes a detailed explanation and examples of how to report the new lead consumer notice violation to EPA.



# SECTION I: OVERVIEW

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## A. Purpose of the Rule Revisions

The purpose of this summary is to acquaint State decision makers and public health officials with the Lead and Copper Rule (LCR) Short-Term Revisions. These Short-Term Revisions were published in the *Federal Register* on October 10, 2007 (72 FR 57782); [www.epa.gov/safewater/lcrmr/index.html](http://www.epa.gov/safewater/lcrmr/index.html). The purpose of the Short-Term Revisions is to strengthen the implementation of the LCR in the following areas: monitoring, treatment processes, public education, customer awareness, and lead service line replacement. These changes provide more effective protection of public health by reducing exposure to lead in drinking water.

The Short-Term Revisions do not change the action levels of 0.015 milligrams per liter (mg/L) for lead and 1.3 mg/L for copper, or the maximum contaminant level goals (MCLGs) established by the 1991 LCR, which are 0 mg/L for lead and 1.3 mg/L for copper. They also do not affect the Rule's basic requirements to optimize corrosion control and, if appropriate, treat source water, deliver public education, and replace lead service lines. The Short-Term Revisions continue to exclude transient non-community water systems from the requirements of the Rule.

## B. LCR Regulatory History

EPA promulgated MCLGs and National Primary Drinking Water Regulations (NPDWRs) for lead and copper in 1991 (56 FR 26460, June 7, 1991). The goal of the LCR is to provide maximum human health protection by reducing lead and copper levels at consumers' taps to as close to the MCLGs as is feasible. To accomplish this goal, the LCR establishes requirements for community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) to optimize corrosion control and conduct periodic monitoring. Systems are required to perform public education when there are lead action level exceedances at more than 10 percent of the taps that are sampled, treat source water if it contributes significantly to lead and copper levels at the tap, and replace lead service lines in the distribution system if the lead level at the tap continues to exceed the action level after optimal corrosion control and/or source water treatment has been installed.

EPA proposed minor revisions to the LCR (LCRMR) in 1996 (60 FR 16348) and finalized these minor revisions on January 12, 2000 (65 FR 1950). These minor revisions streamlined the requirements of the LCR, promoted consistent national implementation, and reduced the reporting burden to affected entities. These minor revisions also addressed the areas of optimal corrosion control demonstration, lead service line replacement requirements, public education requirements, monitoring requirements, analytical methods, reporting and recordkeeping requirements, and special primacy considerations. The LCRMR did not change the action level, MCLG, or the rule's basic requirements.

Despite the LCRMR, some questions remained regarding 90<sup>th</sup> percentile calculations and monitoring requirements. In 2004, EPA issued two memoranda to address these questions. The March 9, 2004 memorandum from Cynthia C. Dougherty, the EPA Office of Ground Water and Drinking Water (OGWDW) Director, responded to the issue of whether a 90<sup>th</sup> percentile calculation could be determined if the minimum number of samples were not collected. This memorandum stated that in this instance, the 90<sup>th</sup> percentile level would be based on the number of samples collected. For example, if 3 samples were collected, the 90<sup>th</sup> percentile would be based on the 2.7<sup>th</sup> sample (i.e., 0.9 multiplied by the number of samples). The 90<sup>th</sup> percentile is calculated by rounding to the nearest whole number (the 3<sup>rd</sup> or highest sample result in this example) or by interpolation (using the 2<sup>nd</sup> and 3<sup>rd</sup> sample results in this example). If the 90<sup>th</sup> percentile level exceeded the action level, the system would be triggered into the required follow-up actions. In addition, the public water system (PWS) would be assigned a lead and copper tap monitoring and reporting (M/R) violation.

The second memorandum was issued on November 23, 2004 by Benjamin H Grumbles, Assistant Administrator for the EPA Office of Water. This memo clarified those LCR requirements associated with the collection and management of lead and copper samples and reiterated the guidance provided in the March 9, 2004 memo regarding 90<sup>th</sup> percentile calculations. It addressed the following questions regarding sampling: 1) samples to be used for 90<sup>th</sup> percentile calculations; 2) what PWSs should do with results from customer-requested samples; 3) what to do with samples collected outside the compliance period; 4) what constitutes a proper sample; 5) how PWSs can avoid problems with sample collection; and 6) sample invalidation criteria. EPA also prepared an accompanying fact sheet, *Clarification of Requirements for Collecting Samples and Calculating Compliance Fact Sheet* (EPA 810-F-04-001).

The Short-Term Revisions supersede the memos related to the requirements for calculating the 90<sup>th</sup> percentile level when the system has fewer than five taps and the State allows a reduction in the number of samples. The revised 40 CFR §141.86(c), clarifies the monitoring requirements for PWSs with fewer than five drinking water taps that can be used for human consumption and that meet the site-selection criteria. These systems must collect at least one sample from each tap and additional samples from those taps on different days during the monitoring period to meet the required number of sites. Alternatively, the State may grant its approval in writing to allow these PWSs to collect fewer than five samples, if all taps that can be used for human consumption are sampled. The newly added §141.80(c)(5) specifies that for systems that are allowed to collect fewer than five samples, the highest test result is the 90<sup>th</sup> percentile level. In addition, these systems would not be assigned an M/R violation. However, those PWSs that collect fewer than five samples without State written approval would be assigned an M/R violation.



These memoranda and the fact sheet can be downloaded at <http://www.epa.gov/safewater/lcrmr/compliancehelp.html>. Please note that the Short-Term Revisions supersede the guidance in these documents regarding the 90<sup>th</sup> percentile calculation when a system is allowed to collect fewer than five samples.

## **C. Development of the LCR Short-Term Revisions**

In 2004, the District of Columbia experienced incidences of elevated lead levels in drinking water, which prompted EPA to initiate a comprehensive national review of the LCR to evaluate the implementation and effectiveness of the rule. The purpose of the review was to determine whether elevated lead levels in drinking water were a national problem; if a large percentage of the population received water that exceeded the lead action level; if a significant number of systems failed to meet the action level; how well the existing LCR worked to reduce drinking water lead levels; and if the regulation was being effectively implemented, especially with respect to monitoring and public education requirements. EPA's comprehensive review consisted of several elements, including a series of workshops designed to solicit ideas, comments, and suggestions from stakeholders on particular issues; a review of monitoring data to evaluate the effectiveness of the LCR; and a review of the LCR implementation by States and water utilities. As a result of this multi-part review, EPA identified seven targeted rule changes intended to strengthen the implementation of the LCR in the areas of monitoring, consumer awareness, State notification of long term treatment changes, and lead service line replacement in the short-term. The short-term changes are expected to ensure and enhance protection of public health by reducing exposure to lead in drinking water. The final rule does not amend the portion of the regulations related to copper; however, provisions addressing copper will be considered for future revisions to the rule. EPA will propose any future regulatory changes under a separate regulatory action.

## **D. Benefits of the LCR Short-Term Revisions**

The intent of the 2007 rulemaking is to improve implementation of the LCR by clarifying monitoring requirements, improving consumer awareness, and modifying the lead service line "replaced through testing" provision. The Short-Term Revisions do not affect the action levels, corrosion control requirements, other lead service line replacement requirements, or other provisions in the existing rule that directly determine the degree to which the rule reduces risks from lead and copper.

However, the increase in administrative activities that will result from the Short-Term Revisions will generate new information (e.g., more monitoring data, some of which may show exceedances), and may prompt some systems or individuals to respond to this new information by taking measures to abate lead and copper exposures and thus reduce the associated risk. Also, the requirement that long-term treatment changes be approved by the Primacy Agency prior to implementation will provide an additional opportunity to identify possible adverse impacts due to treatment changes, which may lower the risk to consumers.

Because the precise impact of the Short-Term Revisions on the behavior of individuals and systems is not known, EPA has not quantified the changes in associated health benefits. However, EPA does expect that overall benefits from the LCR will increase, as a result of the indirect effects of the Short-Term Revisions on the actions of individual consumers and systems.

## **E. Effective and Compliance Dates**

The Short-Term Revisions were published on October 10, 2007. As of December 10, 2007, they became law (effective), thereby amending the previous version of the regulation. The compliance date for all of the provisions of this Rule is 180 days after publication in the *Federal Register* (i.e., April 7, 2008), except if by that date, the State has not adopted this rule, in which case compliance with this final rule is required the earlier of either the State's adoption of the rule, or two years after December 10, 2007. Systems for which EPA is the Primacy Agency (i.e., Wyoming, DC, and most Indian territories) and in States that incorporate EPA's drinking water regulations by reference automatically or incorporate based on the Federal publication date must begin complying with the Short-Term Revisions on April 7, 2008.

States with primacy for the drinking water program are required to adopt State regulations and submit a revised primacy application package to EPA by December 10, 2009. A State may request an extension for up to 2 years, or until December 10, 2011, if it can demonstrate that it cannot meet the December 10, 2009 deadline for reasons beyond its control, despite a good faith effort to do so. States have the flexibility of choosing early implementation, enabling the water systems to take advantage of the efficiencies in the new regulations in less than the required two years. For States that adopt this rule after six months but before two years or December 10, 2009, the Short-Term Revisions will be effect on the date that the State rule is effective.

## F. Key Dates of the Rule

Exhibit I-1 presents the timetable for implementation of the Short-Term Revisions including the schedule for States to prepare and submit a revised primacy package.

<b>Exhibit I-1. Timetable for the LCR Short-Term Revision Requirements</b>	
<b>Date</b>	<b>Requirements</b>
October 10, 2007	Rule is published in <i>Federal Register</i> [72 FR 57782].
December 10, 2007	Rule effective date. <sup>1</sup>
December 10, 2007 (recommended)	State and EPA region establish a process and agree upon a schedule for application review and approval. (See Section V for more detail.)
April 7, 2008	Rule compliance date for States adopting by reference or where EPA has primacy. <sup>2</sup>
April 10, 2008 (recommended)	State, at its option, submits <i>draft</i> primacy program revision package. (See Section V for more detail.)
July 1, 2009	All systems where EPA is the Primacy Agency, systems in States that adopt by reference automatically or during 2008, should comply with the new requirement in the Consumer Confidence Report (CCR) due July 2009 (i.e., the 2008 CCR).
Completed within 90 days of State submittal of draft	Regional (and Headquarters, if necessary) review of draft primacy revision package. (See Section V for more detail.)
December 10, 2009 <sup>3, 4</sup>	State submits final primacy program revision package. (Refer to Section V for more detail.)
July 1, 2010	All systems in States that adopt the rule in 2009 should comply with the new requirement in the CCR due July 2010 (i.e., the 2009 CCR).
December 10, 2011 <sup>5</sup>	States with approved extensions submit complete and final primacy program revision package. (See Section V for more detail.)
Completed within 90 days of State submittal of final	EPA final review and determination regarding State's final primacy program revision package. (See Section V for more detail.)
<sup>1</sup> The effective date is when the Short-Term Revisions become law and amend the previous version of the LCR. <sup>2</sup> The compliance date is when the Primacy Agency will begin implementing (and systems must begin complying with) the requirements of the Short-Term Revisions. The earliest compliance date is April 7, 2008 and will apply to those systems where EPA is the Primacy Agency or in States that adopt the Rule by reference automatically or incorporate based on the Federal publication date. <sup>3</sup> EPA suggests submitting an application by September 10, 2009, to ensure timely approval. The regulations provide until December 10, 2009, for this submittal. <sup>4</sup> The latest compliance date for all CWS and NTNCWS is December 10, 2009, which also applies to those systems in States that have not adopted the Rule by that date. <sup>5</sup> EPA suggests submitting an application by September 10, 2011 for States with approved extensions to ensure timely approval. The regulations provide until December 10, 2011, for this submittal.	



## SECTION II: RULE REQUIREMENTS

Section I described each of the federal rule sections that were revised by the Short-Term Revisions. The discussion in this section is organized by each of the following areas:

- Minimum number of samples required;
- Definitions for compliance and monitoring periods/timing of actions;
- Reduced monitoring criteria;
- Consumer notice of lead tap water monitoring results;
- Advanced notification and approval of long-term treatment changes and source additions;
- Public education requirements
- Consumer confidence report; and
- Reevaluation of lead service lines.

This section also includes an explanation of four areas on which EPA requested comment but decided not to promulgate in the Short-Term Revisions.

Exhibit II-1 provides a summary of the new requirements of the Short-Term Revisions compared to the requirements under the 1991 Rule as amended by the LCRMR

Exhibit II-1. Summary of New Requirements under the Short-Term Revisions		
Federal Citation	New Requirements under the Short-Term Revisions	Previously Required under the 1991 Rule as Amended by LCRMR
Minimum Number of Samples Required		
§141.80(c)(3)(v)	For public water systems (PWSs) collecting < 5 samples, the 90 <sup>th</sup> percentile value is the highest concentration.	PWSs could not collect < 5 samples.
§141.86(c)	PWSs with < 5 taps must collect more than 1 sample from the same site on alternate days; or with written State permission, can collect < 5 samples if all available drinking water taps are sampled.	
Compliance and Monitoring Period Definitions and Timing of Actions		
Clarification Regarding End of Monitoring Period		
§141.84(b)(1); §141.85(b)(2)(vii); §141.85(b)(4)(iii); §141.88(b)	To help clarify the timing of requirements, the end of the reduced lead and copper tap monitoring period is defined as September 30 or the last day of the State-established alternate period.	Rule did not include this clarification.
Timing Following an Action Level Exceedance		
§141.81(e)(1); §141.81(e)(2); §141.81(e)(2)(i); §141.81(e)(2)(ii)	The number of months to complete a corrosion control treatment (CCT) step (i.e., treatment recommendation, need for CCT study, State designation of CCT) is counted from the end of the monitoring period during which the action level exceedance (ALE) occurred.	Corrosion control treatment steps were counted as a specified number of months “after the exceedance occurred.”

## Exhibit II-I. Summary of New Requirements under the Short-Term Revisions

Federal Citation	New Requirements under the Short-Term Revisions	Previously Required under the 1991 Rule as Amended by LCRMR
§141.83(a); §141.88(b)	PWS must conduct initial source water monitoring and provide source water treatment (SOWT) recommendation to the State within 180 days after the end of the monitoring period in which the ALE occurred.	This information was due within 6 months after exceeding an action level (AL).
§141.84(b)(1)	The first year of lead service line replacement (LSLR) begins on the first day following the end of the monitoring period in which the lead ALE occurred after installing the required treatment(s).	First year of LSLR began on the date the lead AL was exceeded after installing the required treatment(s).
§141.85(b)(2); §141.85(b)(4)	PWSs initiating or recommending public education must deliver public education within 60 days after the end of the monitoring period in which the lead ALE occurred.	Rule required public education to be delivered within 60 days after the ALE.
§141.90(e)(1)	The material evaluation identifying the initial number of LSLs is due 12 months after the end of monitoring period in which the system is triggered into LSLR.	This information was due 12 months after the ALE.
	Defines the initial number of LSLs as the number in the distribution system during the monitoring period that triggered the PWS into LSLR ( <i>also defined in §141.84(b).</i> )	The definition of initial number of LSLs was defined in §141.84(b) only.
§141.90(e)(2)	Documentation that demonstrates compliance with replacement requirements is due 12 months after the end of the monitoring period in which the lead ALE occurred after initiating LSLR.	This information was due 12 months after the ALE.
<b>Lead and Copper Reduced Monitoring Clarifications</b>		
§141.86(d)(4)(i)	Annual monitoring begins in the next calendar year (CY) for small or medium PWSs that collect < 5 samples and meet both ALs for 2 consecutive 6-month periods.	PWSs could not collect < 5 samples. Rule did not specify when annual lead and copper tap monitoring would begin.
§141.86(d)(4)(iii)	Triennial monitoring must be conducted no later than every third CY.	Rule did not contain this language.
§141.86(d)(4)(iv) (A)	PWSs on a State-specified 4-month monitoring schedule must begin annual monitoring during the CY after the end of the second 6-month monitoring period, or after the end of the 3-year period for triennial monitoring, in which they qualify for reduced monitoring.	Rule did not specify when annual or triennial monitoring must begin for a system on a State-specified alternate 4-month monitoring schedule
§141.86(d)(4)(vi) (B)	PWSs on reduced monitoring must return to standard monitoring if they have a lead ALE or an optimal water quality parameter (OWQP) excursion. Standard monitoring must resume January 1 of the CY following the lead ALE or OWQP excursion.	Rule did not require PWSs to return to standard monitoring if they met their OWQPs but had a lead ALE; nor did it specify the date by when standard monitoring would resume.
§141.86(d)(4)(vi) (B)(f)	PWSs can resume annual monitoring in the CY following the end of the second consecutive 6-month monitoring period in which they met the lead AL and OWQPs.	Rule did not specify when reduced monitoring would begin.
§141.86(g)(4)(i)	PWSs on a 9-year monitoring waiver must collect samples no later than every ninth CY.	Rule did not include this clarification.



<b>Exhibit II-I. Summary of New Requirements under the Short-Term Revisions</b>		
<b>Federal Citation</b>	<b>New Requirements under the Short-Term Revisions</b>	<b>Previously Required under the 1991 Rule as Amended by LCRMR</b>
§141.90(a)(1)	For monitoring periods of < 6 months (e.g., 4-month tap monitoring), the monitoring period end is the last date samples can be collected during that period (e.g., Sept. 30).	Rule did not include this clarification.
<b>Water Quality Parameter Monitoring</b>		
§141.87(d)	Large PWSs must begin water quality parameter (WQP) monitoring in the first 6-month period after the State sets OWQPs.	Large PWSs were required to begin WQP monitoring on the date the State set OWQPs.
	For small or medium PWSs that exceed an AL during reduced lead and copper tap monitoring, the first 6-month WQP monitoring period is the same as the lead and copper tap monitoring period in which the ALE occurred.	Rule synchronized the <i>end</i> of the 6-month period for WQP monitoring with the <i>end</i> of the reduced lead and copper tap monitoring period during which an AL was exceeded.
§141.87(e)(2)(i)	Annual WQP tap monitoring for qualifying systems must begin during the CY following the end of the monitoring period in which the third consecutive year of 6-month monitoring occurs.  Triennial monitoring must begin no later than 3 CYs after the PWS qualifies for triennial monitoring.	Rule did not include these clarifications.
§141.87(e)(2)(ii)	Triennial WQP monitoring must be conducted no later than every third CY.	Rule did not include this clarification.
<b>Source Water Monitoring</b>		
§141.88(d)(1)(i)	PWSs on triennial source water monitoring must collect samples at least every 3 years.	Required samples to be collected once during the 3-year compliance period.
§141.88(d)(1)(ii)	The first annual source water monitoring period begins during the year in which the State sets MPLs or determined that no SOWT is needed.	Required this monitoring to begin on the date that the State set MPLs or determined that SOWT was not needed.
§§141.88(e)(1) & (e)(2)	PWSs on 9-year source water monitoring must collect samples at least every 9 years.	Required samples to be collected once during the 9-year compliance cycle.
<b>Lead and Copper Tap Reduced Monitoring Criteria</b>		
§141.86(d)(4)(ii); §141.86(d)(4)(iii)	All PWSs must meet the lead AL as a condition of reduced lead and copper tap monitoring.	PWSs could qualify for reduced monitoring based on meeting their OWQPs only.
<b>Consumer Notice of Lead Results</b>		
§141.80(g); §141.85(d)	PWSs must provide lead tap sampling results, lead health effects language, steps to reduce exposure, contact information, and the lead MCLG and AL values and definitions to persons served at tested sites within 30 days of learning of results.	PWSs were not required to notify individual homeowners of their tap monitoring results.
§141.90(f)(3)	PWSs must provide the State with a sample consumer notification and certification of its proper delivery within 3 months after the end of the applicable monitoring period.	Rule did not require lead consumer notice or the corresponding State reporting requirement.

## Exhibit II-I. Summary of New Requirements under the Short-Term Revisions

Federal Citation	New Requirements under the Short-Term Revisions	Previously Required under the 1991 Rule as Amended by LCRMR
<b>Advanced Notification/Approval of Long-Term Treatment Changes and Source Additions</b>		
§141.81(b)(iii); §141.86(d)(4)(vii); §141.86(g)(4)(iii)	PWSs on reduced lead and copper tap monitoring must report any <i>upcoming long-term</i> change in treatment or any source addition to the State and must receive prior approval before implementing the change or addition.	Rule did not specify that treatment changes had to be “long-term.” Prior State approval was not needed before implementing the change or source addition.
§141.90(a)(3)	The notification must be in writing, at a time specified by their State, or as soon as possible before making the change or addition.	PWSs were encouraged to provide prior notification but were required to provide it within 60 days after the addition or change.
<b>Public Education</b>		
§141.85(a)(1)	Requires CWSs and NTNCWSs to deliver the same mandatory language. Adds flexibility for PWSs to tailor the language for other required topics.	CWSs and NTNCWSs had separate mandatory language. Rule did not allow the PWS to tailor the language. Since all PE language was mandatory, the Rule did not include an optional provision requiring prior State review and approval of the language.
	PWSs must submit public education language for State review and approval at the State’s option.	
§141.85(a)(2)	Requires additional information to be included in CWS materials.	
§141.85(b)(1)	For PWSs serving a large percent of non-English speaking consumers, the notice must include in appropriate languages: its importance, or where to get a translated copy or needed assistance.	PWSs were required to provide materials in other languages in those communities where a significant proportion spoke a language other than English.
§141.85(b)(2)	For CWSs, adds organizations that PWSs must partner with (including those outside service area) to disseminate the message to at-risk populations as well as changes the ways information is disseminated.	Delivery was limited to organizations within service area. Rule included fewer public education activities.
§141.85(b)(2); §141.85(b)(5)	Allows State to extend 60-day timeframe for completion of public education if system has initiated public education.	This extension was not allowed.
<b>Consumer Confidence Report Rule</b>		
§141.154	All CWSs must include mandatory language about lead, health effects language, and ways to reduce exposure to lead in every CCR. CWSs may write their own educational statements in consultation with the State.	Only CWSs that detected lead above 15 ppb in > 5% of homes sampled had to provide an informational statement. CCR Rule included suggested language that was less specific in several areas.
<b>Reevaluation of Lead Service Lines</b>		
§141.84(b)(2)	PWSs that resume LSLR must update their LSL inventory to include those that were classified as “replaced through testing.”	PWSs were not required to retest lines that were considered “replaced through testing.”



Some of the Short-Term Revisions may require changes to system sampling plans. States should ensure that their water systems are aware of these revisions and that the appropriate changes are made to these plans.

## A. Minimum Number of Samples Required

The Short-Term Revisions clarify the minimum sampling requirement for water systems that have fewer than five taps and the meaning of the term “site” by amending §141.86(c). In the original 1991 LCR, the term “site” was relevant for determining the number of samples collected. However, the term was confusing as to whether it referred to the taps from which the samples were collected or the buildings in which the taps were located.

Specific revisions to §141.86(c) are:

- A clarification that sampling “sites” refer to “taps that can be used for human consumption,” such as kitchen and bathroom taps as opposed to outlets such as hose bibs or taps at utility sinks.
- A clarification that systems with fewer than five taps that can be used for human consumption must sample all taps at least once and then take repeat samples on different days until a total of five samples are obtained (except as noted in the next bullet).
- A new provision that gives States the discretion to allow water systems that have fewer than five taps to collect one sample from each tap that can be used for human consumption. To qualify for this provision, a water system may request approval from the State. The State approval must be in writing and based on the water system’s request or an on-site visit verification.

EPA has added regulatory language to two other sections that pertain to systems that receive State permission to collect fewer than five samples as follows:

- §141.80(c)(5) requires systems with fewer than five samples to use the highest test result as the 90<sup>th</sup> percentile level. If this result exceeds the action level, then the system must complete appropriate follow-up actions (e.g., public education, corrosion control treatment, and lead service line replacement).
- §141.86(d)(4)(i) allows these water systems to reduce the lead and copper sampling frequency to once per year but requires systems to collect at least one sample per tap that can be used for human consumption. *[Note: §141.86(d)(4)(iii) allows water systems to further reduce their lead and copper tap monitoring frequency to triennially. Although, the Short-Term Revisions do not include specific language allowing systems that monitor triennially to collect fewer than five samples but at least one sample per tap that can be used for human consumption, EPA interprets the regulation to allow this.]*



*States have the option of adopting the provisions pertaining to PWSs that collect fewer than 5 samples. However, States may be unable to implement these changes until they update their regulations.*

## **B. Definitions for Compliance and Monitoring Periods**

The Short-Term Revisions clarify the “compliance period” as a three-year calendar period and the “monitoring period” as the specific period in which water systems must conduct required monitoring (e.g., for systems on reduced monitoring, the four-month period of June through September or an alternate four-month period specified by the State). In addition, the Short-Term Revisions provide a number of clarifications throughout the rule to explain when compliance and monitoring periods begin and end. These clarifications help define the timing of actions following a lead or copper action level exceedance; the timing of monitoring activities related to reduced monitoring schedules; and reporting requirements, as described in more detail below.

### **B.1 Timing of Follow-up Actions**

Under the previous regulations, there was uncertainty about when a system was determined to have exceeded the action level and the corresponding deadlines for completing corrosion control studies, lead service line replacement, and public education (e.g., end of December or the end of September for systems monitoring during June through September). The Short-Term Revisions clarify that a system has exceeded an action level as of the date on which the monitoring period ended (e.g., on September 30). This clarification is also intended to ensure that the system and the State begin actions to reduce exposure (e.g., corrosion control, public education, and lead service line replacement) as soon as possible. The deadlines for completing these follow-up activities will be calculated from the date the system is determined to be exceeding the action level (i.e., the end of the monitoring period).

Exhibit II-2 lists the LCR rule sections and corresponding requirements to which EPA has added language that clarifies the timing of actions following an action level exceedance.

<b>Exhibit II-2. Time Frame for Action Level Exceedance Follow-up Activities</b>		
<b>Federal Citation</b>	<b>Requirement</b>	<b>Deadline<sup>1</sup></b>
§141.81(e)(1)	System recommends optimal corrosion control treatment (OCCT).	6 months
§141.81(e)(2)	State determines a corrosion control study is required.	12 months
§141.81(e)(2)(i)	State specifies OCCT for medium-size systems that are not required to conduct a study.	18 months
§141.81(e)(2)(ii)	State specifies OCCT for small systems that are not required to conduct a study.	24 months
§141.83(a)(1)	System completes initial source water monitoring and makes a treatment recommendation.	180 days
§141.84(b)(1)	System begins the first year of lead service line replacement. <sup>2</sup>	1 day
§141.85(b)(2)	CWS conducts public education tasks (for CWSs that are not already conducting public education) – <i>also see paragraph below.</i>	60 days
§141.85(b)(4)	NTNCWS conducts public education tasks (for NTNCWSs that are not already conducting public education) – <i>also see paragraph below.</i>	60 days
§141.88(b)	System conducts initial source water monitoring.	6 months
<sup>1</sup> Expressed as number of months or days <i>after the end of the monitoring period during which</i> the lead and/or copper action level was exceeded. <sup>2</sup> Corresponds to the monitoring period in which the PWS exceeds the lead action level after installing corrosion control treatment and/or source water treatment, whichever is later. <i>[See section B.3 for clarifications to the timing of reporting actions associated with lead service line replacement.]</i>		

The Short-Term Revisions also allow the State discretion to extend the 60-day requirement for delivering public education materials for CWSs (§141.85(b)(3)(iv)) and NTNCWSs (§141.85(b)(5)), provided that before the end of the 60-day deadline, the State has approved the extension in writing. This extension only applies if the activities are ongoing prior to the end of the 60-day deadline.

## B.2 Timing of Monitoring Requirements

EPA has also clarified the timing of monitoring activities for systems that qualify for reduced lead and copper tap, water quality parameter (WQP), and/or source monitoring or no longer meet the reduced monitoring criteria. These revisions help clarify that reduced monitoring must occur during June through September within the same calendar year or during an alternate four-month period designated by the State within the same calendar year. The previous rule language could be interpreted to allow a water system to collect compliance samples over multiple calendar years, as long as they were taken during the June–September time frame (or alternate monitoring period) and during the three-year compliance period.

The Short-Term Revisions also more clearly define the monitoring requirements for systems after the State sets OWQPs, and for those on triennial or nine-year monitoring. For example, some States interpreted triennial monitoring to mean that samples could be collected during the first, second, or third year of the three-year compliance period or over multiple years as long as the samples were collected in the summer months of June through September. In some cases, more than three years spanned between monitoring periods (e.g., samples were collected in 2002 of the compliance period 2002 through 2004, and in 2007 for the compliance period 2005 through 2007).

The revisions that clarify monitoring pertaining to lead and copper tap, WQPs, and source water are discussed in more detail below. Also refer to section B.3 regarding the clarification of timing requirements for system reporting to the States.

## **B.2.1 Lead and Copper Tap Monitoring Requirements**

### ***B.2.1.1 Requirements Applicable to CWSs and NTNCWSs***

Section 141.86(d)(4)(i) allows medium and small systems to proceed to annual monitoring at the reduced number of sites if they meet the lead and copper action levels during each of two consecutive six-month monitoring periods. Section 141.86(d)(4)(ii), as modified by the Short-Term Revisions, allows any water system that *meets the lead action level and OWQPs* for two consecutive six-month monitoring periods to monitor annually at the reduced number of sites. The Short-Term Revisions clarify the start of annual monitoring in these two sections by specifying that it must begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.



#### **EXAMPLE – Annual Monitoring**

- ★ A PWS meets both action levels and its OWQP specifications during July 1- December 31, 2008 and January 1- June 30, 2009.
- ★ Annual monitoring would begin in 2010 because the PWS completed its 2<sup>nd</sup> six-month monitoring period below the lead and copper action levels in 2009.
- ★ The PWS would collect the annual samples during June - September 2010.
- ★ The PWS would report the results to the State by October 10, 2010. [Refer to section B.3 regarding reporting clarification.]

Section 141.86(d)(4)(iii) allows medium and small systems to proceed to triennial monitoring at the reduced number of sites if they meet the lead and copper action levels during each of three consecutive years. This section, as modified by the Short-Term Revisions, also allows any water system that *meets the lead action level and OWQPs* for three consecutive years and with approval from the State to conduct triennial monitoring at the reduced number of sites. In addition, the Short-Term Revisions specify that triennial samples must be collected no later than every third calendar year.

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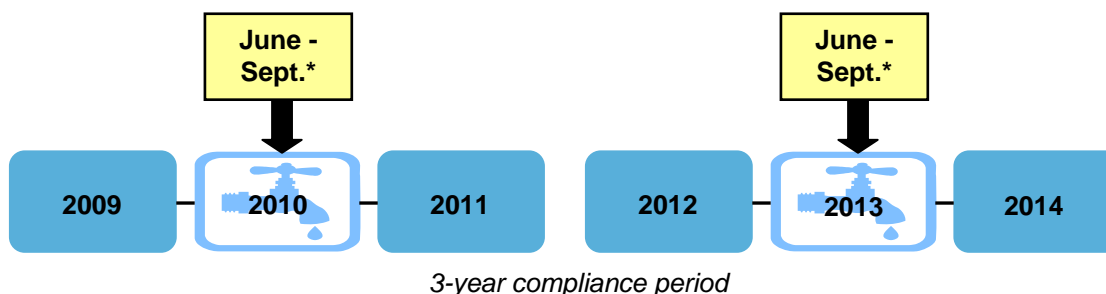
Two consecutive six-month monitoring periods in which the 90<sup>th</sup> percentile is at or below both action levels can count as the first year of the three years needed to qualify for triennial monitoring.



### EXAMPLE – Triennial Monitoring

- ★ A PWS qualifies for triennial monitoring based on meeting both action levels and its OWQP specifications.
- ★ It is required to monitor during 2009 - 2011.
- ★ The PWS collects its sample during July 2010 and reports the results by October 10, 2010.
- ★ The PWS must conduct its next round of monitoring no later than June through September of 2013. [See Exhibit II-3 below.]

### Exhibit II-3. Three-Year Compliance Period for Systems on Reduced Triennial Monitoring



\*Samples must be collected during this monitoring period or alternate State-designated period.

Section 141.86(d)(4)(vi)(B) requires water system on reduced monitoring that exceed the lead action level or do not meet their OWQP specification for more than nine days in a six-month period (i.e., have an excursion) to resume standard lead and copper tap monitoring. The Short-Term Revisions clarify that this standard monitoring must begin no later than the six-month monitoring period beginning January 1 of the calendar year following the lead action level exceedance or WQP excursion.





### EXAMPLE – Resuming Standard Monitoring

- ★ A PWS meets its OWQP specifications but exceeds the lead action level based on samples collected during July 2009.
- ★ This PWS must resume standard lead and copper tap monitoring beginning with the six-month monitoring period of January 1- June 30, 2010.

Section 141.86(d)(4)(vi)(B)(1), as modified by the Short-Term Revisions, allows a system to re-qualify for reduced annual lead and copper tap monitoring if it has two consecutive six-months rounds below the *lead action level*, meets its OWQPs, and receives written approval from the State. The Short-Term Revisions also specify that annual monitoring will begin during the calendar year immediately following the end of the second consecutive six-month monitoring period in which the system meets the reduced monitoring criteria. The example above (*i.e., Example – Annual Monitoring*) explains when annual monitoring would begin.

Section 141.86(g)(4)(i) requires small systems with full waivers to conduct reduced lead and copper tap monitoring once every nine years. The Short-Term Revisions clarify that these samples must be collected by the ninth calendar year. *[Note: This clarification was not added to §141.86(g)(4)(ii), which allows systems on partial waivers to conduct reduced lead and copper tap monitoring every nine years for the waived contaminant. However, EPA added new language to 141.86(g)(4)(i) to clarify that the reference to “every nine years” in that section means that these samples must be collected by the ninth calendar year.]*

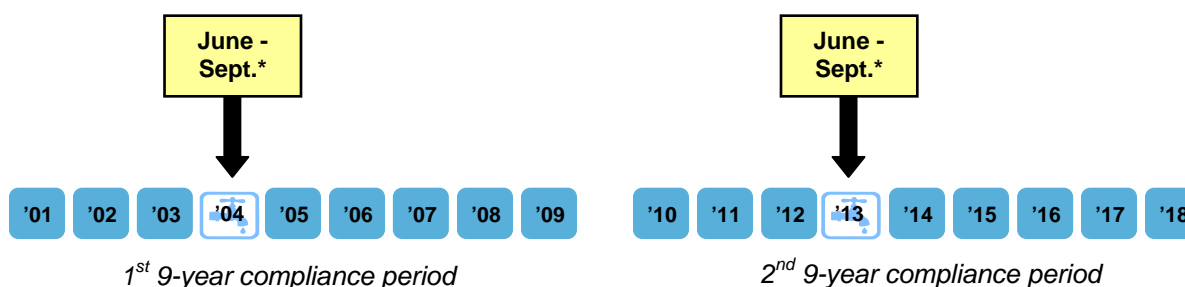


### EXAMPLE – Nine-Year Monitoring Waiver


- ★ A small PWS with a monitoring waiver is required to collect samples during 2001 - 2009.
- ★ The PWS conducts monitoring during August 2004.
- ★ Because these samples must be collected every 9 years, the next set of samples must be collected no later than June - September of 2013. *[See Exhibit II-4 below.]*



## Exhibit II-4. Nine-Year Compliance Period for Systems on Monitoring Waivers



\*Samples must be collected during this monitoring period or alternate State-designated period.

 Systems that are on reduced lead and copper tap monitoring must collect their samples during June - September in the same calendar year (i.e., monitoring cannot span multiple calendar years). For example, a system that is on triennial monitoring for 2007 through 2009 cannot take some samples in June 2007, June 2008, and June 2009 to obtain the total number of needed compliance samples.

### B.2.1.2 Requirements Applicable to NTNCWSs Only

Section 141.86(d)(4)(iv)(A) allows the State to specify a maximum alternate lead and copper tap monitoring period of four consecutive months for NTNCWSs that do not operate during June through September. The Short-Term Revisions clarify when annual and triennial reduced monitoring will begin for these systems. Specifically, monitoring will begin during the State-specified alternate months:

- in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring, and
- during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.



### EXAMPLE – Triennial Monitoring for NTNCWS on an Alternate Schedule

- ★ A NTNCWS is closed during the summer months and is required to collect lead and copper samples during April or May.
- ★ It completes its third consecutive year of monitoring that is below the action levels during May 2009.
- ★ The system is required to conduct monitoring during the period of 2010 to 2012 (i.e., the 3-year period following the year in which it qualified for triennial monitoring based on annual monitoring results).
- ★ The NTNCWS must sample no later than April or May of 2012. No more than three years can pass between triennial monitoring periods.

#### B.2.2 WQP Monitoring

The Short-Term Revisions add language to §141.87(d) that specify the first six-month WQP monitoring period begins after the State specifies OWQPs. For large water systems (those serving more than 50,000 people) or small and medium systems that are on six-month lead and copper tap monitoring, this period begins on either January 1 or July 1, whichever comes first, after the State specifies OWQPs.

For small or medium-size systems that were on reduced lead and copper tap monitoring but exceed an action level, §141.87(d) of the Short-Term Revisions require the start of the six-month WQP period to coincide with the start of the 4-month monitoring period during which the exceedance occurred. This will allow small and medium systems on reduced monitoring that exceed the action level two months to take WQP samples after the end of the 4-month monitoring period in which they had to take lead and copper tap samples. For example, a system that takes lead and copper tap samples between June and September and exceeds the action level, would have until the end of November to take WQP samples. This provision is intended primarily for systems that are not aware of the exceedance until the end of the lead and copper monitoring period. However, those systems that are aware of the action level exceedance earlier in the four-month lead and copper monitoring period should conduct their WQP monitoring once they become aware of the exceedance to better capture the water quality conditions at the time of the exceedance.



*As described above, the six-month OWQP monitoring period is June 1 through November 30 for small or medium water systems that were on reduced lead and copper tap monitoring when they exceeded the lead or copper action level. This compliance period should be used in place of the July 1 – December 31 compliance period, that is recommended for these systems on page 11 in the February 2001 guidance (EPA 815-R-99-019) “How to Determine Compliance with Optimal Water Quality Parameters as Revised by the Lead and Copper Rule Minor Revisions.” Please note that the Short-Term Revisions do not revise the basic procedure for assessing compliance with OWQPs as described in this February 2001 guidance (i.e., compliance is still based on six-month compliance periods).*

Section 141.87(e)(2)(i) allows a water system that is collecting a reduced number of WQP tap samples on a six-month schedule to reduce the frequency to annually if it meets its OWQP specifications during three consecutive years (i.e., six consecutive six-month periods). The Short-Term Revisions specify that this annual WQP tap monitoring will begin during the calendar year that immediately follows the end of the monitoring period in which the third consecutive year of six-month monitoring occurs. (*Refer to “Example – Annual Sampling” in section B.2.1.1.*)

Section 141.87(e)(2)(i) also states that a water system that meets its OWQP specifications for three consecutive years of annual monitoring can further reduce the frequency of tap WQP monitoring to triennially. The Short-Term Revisions clarify that triennial monitoring must begin within three calendar years after the system qualifies for triennial monitoring.



#### **EXAMPLE – Tap WQP Triennial Monitoring**

- ★ A PWS meets its OWQPs for the 3<sup>rd</sup> consecutive year during 2008.
- ★ This system must collect its tap WQP samples by the end of 2011 (i.e., within 3 years after it qualifies for triennial monitoring).

A system can also qualify for triennial tap WQP monitoring under the accelerated reduced monitoring provisions of §141.87(e)(2)(ii) if it meets its OWQP specifications and its 90<sup>th</sup> percentile lead and copper levels are at or below 0.005 mg/L for lead and 0.65 mg/L for copper, respectively, during two consecutive monitoring periods (6-month or annual). The Short-Term Revisions state that triennial monitoring must be completed no later than every third calendar year (e.g., if tap WQP samples were collected in 2007, the next set would be due by the end of 2010).

### **B.2.3 Source Water Monitoring**

The Short-Term Revisions clarify the timing of reduced source water monitoring after the State sets maximum permissible levels (MPLs) in source water or determines that source water treatment is not needed. Specifically, the Short-Term Revisions:

- Retain the requirement in §141.88(d)(1)(i) for systems using only ground water sources to monitor once during the three-year compliance period as defined in §141.2 (e.g., 1/1/2008 - 12/31/2010; 1/1/2011 - 12/31/2013) but clarify that this monitoring must be conducted every third calendar year.



### EXAMPLE – Triennial Source Water Monitoring

- ★ A ground water system on triennial monitoring collects a source water sample from each entry point on November 11, 2008.
- ★ It must complete its next round of monitoring by December 31, 2011.

- Retain the requirement in §141.88(d)(1)(ii) that systems using surface water or ground water under the direct influence of surface water (GWUDI) sources must conduct annual source water monitoring but clarify that the first annual monitoring period begins during the year in which the State set MPLs or determined that source water treatment is not required. Therefore, both the determination and sample collection must occur before the end of December. This clarification encourages States to make timely decisions to allow systems to meet the December 31 deadline.



### EXAMPLE – Annual Source Water Monitoring

- ★ A surface water system submits initial source water monitoring results to the State on May 15, 2008.
- ★ On October 31, 2008, the State determines that no treatment is needed.
- ★ The system must collect a sample from each entry point to the distribution system by December 31, 2008.

The Short-Term Revisions also clarify that ground water systems [§141.88(e)(1)] or surface water or GWUDI systems [§141.88(e)(2)] that qualify for reduced nine-year source water monitoring may monitor once during each nine-year compliance cycle as defined in §141.2 (e.g., 1/1/02 - 12/31/2010) if samples are collected no later than every ninth calendar year. The Short-Term Revisions do not change the reduced monitoring criteria. To qualify for nine-year monitoring, ground water systems must be below their MPLs or have lead source water levels of  $\leq 0.005$  mg/L and copper levels of  $\leq 0.65$  mg/L for three compliance periods. Surface water systems must meet these criteria for three consecutive years.



### EXAMPLE – Nine-Year Source Water Monitoring

- ★ A ground water system is on 9-year source water monitoring.
- ★ It collects a source water sample from each entry point on November 18, 2009.
- ★ The next sample must be collected by December 31, 2018 (i.e., no later than every 9<sup>th</sup> year).

## B.3 Clarification to Timing of Reporting Requirements

The Short-Term Revisions clarify the timing of reporting requirements by defining the end of the monitoring period as follows:

- §141.90(a)(1) requires water systems to submit information pertaining to lead and copper tap and WQP monitoring within the first 10 days following the end of the applicable monitoring period. The Short-Term Revisions clarify that for systems on reduced lead and copper tap monitoring, the end of the monitoring period is the last date samples can be collected (e.g., September 30 for systems on reduced monitoring, unless the State has set an alternate period). For example, a system that is required to collect samples during 2008 - 2010 and collects them during 2009, would need to report the results by October 10, 2009. The system would not have until the end of the three-year compliance period (2010) to report these results.



*Systems must collect their samples early enough in the June - September monitoring period to enable them to report their results to the State by October 10<sup>th</sup>.*

- §141.90(e)(1) requires water systems to submit their material evaluation that identifies the initial number of lead service lines in its distribution system. The Short-Term Revisions clarify that this reporting requirement is due no later than 12 months after the end of the monitoring period in which the system is triggered into lead service line replacement (i.e., an exceedance that occurs after the system installs corrosion control and/or source water treatments, whichever is later). The Short-Term Revisions also define the initial number of lead service lines as the number present in the distribution system during the monitoring period that triggered the system into lead service line replacement.
- §141.90(e)(2) specifies that the system must submit documentation that demonstrates compliance with its replacement requirements within 12 months after it exceeds the lead action level. The Short-Term Revisions clarify that this information is due no later than 12 months after the end of a monitoring period in which it exceeds the lead action level after initiating lead service line replacement.

## C. Reduced Monitoring Criteria

EPA is no longer allowing water systems that exceed the lead action level to initiate or remain on a reduced lead and copper monitoring schedule based solely on the results of their WQPs. The rule previously allowed systems eligibility for reduced monitoring even if they exceeded the lead or copper action level if they could demonstrate their corrosion control treatment was effective by meeting their OWQPs. However, as shown by the events in the District of Columbia, compliance with WQPs alone may not always indicate that corrosion control is effective, especially after a treatment or source change. Continued exceedance of the lead action level may indicate that a particular method of corrosion control treatment is not effective for a particular system and knowledge of this continued exceedance may result in the system implementing an alternative and more effective corrosion control treatment strategy. In addition, more frequent monitoring will allow States to gain a more accurate picture of lead levels in drinking water in their States. Many systems within States share water sources, have similar treatment technologies, and have similar materials in their distribution systems. States and other Primacy Agencies with knowledge of effective corrosion control for one system may be able to aid other systems within their jurisdiction in lowering lead levels in water.

The Short-Term Revisions modify the reduced monitoring provisions in §141.86(d)(4)(ii), (iii), and (vi)(B) as follows:

- Systems can monitor annually at the reduced number of sites if they meet the *lead action level* and their OWQPs for two consecutive six-month monitoring periods.
- Systems can monitor triennially at the reduced number of samples if they meet the *lead action level* and their OWQPs for three consecutive years.
- Systems on reduced monitoring that exceed the *lead action level* or have an OWQP excursion must resume standard lead and copper tap and WQP monitoring.



**A PWS that is on reduced monitoring and exceeds the copper action level is *not* required to resume standard monitoring if it meets the lead action level and its OWQP specifications.**

## D. Consumer Notice of Lead Tap Water Monitoring Results

EPA added a new notification requirement to §141.85(d) that requires all PWSs to provide consumers who occupy homes or buildings that are part of the utility's monitoring program with results when their drinking water is tested for lead (including those who do not receive water bills). These results will help occupants determine what actions to take to reduce their exposure to lead in drinking water. Although some water systems may have provided customers with testing results, they were not previously required by EPA to notify occupants of the lead levels found in their drinking water.

Sections 141.85(d)(2)-(4) specify the timing, content, and delivery methods for this notification as follows:

- §141.85(d)(2) requires the notification to be provided within 30 days of when the system learns of the results.

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*The notification applies to each lead result. Thus, a water system that collects 10 samples, must provide 10 separate notices within 30 days of receiving each result.*

- §141.85(d)(3) specifies that the notice must include: the results of lead tap water monitoring for the tap that was tested an explanation of the health effects of lead, steps consumers can take to reduce exposure to lead in drinking water, contact information for the water utility, the MCLG and the action level for lead, and the definitions for these two terms from §141.153(c) of the CCR Rule.

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*EPA recommends that the notice include the 90<sup>th</sup> percentile level if known prior to the delivery deadline.*

- §141.85(d)(4) requires the notice to be sent by mail or other State-approved method (e.g., NTNCWSs can post the results on a bulletin board in the tested facility if approved by the State).

Where testing occurs in buildings with many units (e.g., an apartment building), the notification must be provided only to units that were tested (i.e., notification does not need to extend to the entire building).



*Templates for lead consumer notice are available in the CWS and NTNCWS public education guidance documents. A copy of these guidances can be downloaded at <http://www.epa.gov/safewater/lcrmr/compliancehelp.html>*

EPA also added a corresponding reporting requirement in §141.90(f)(3). Within 3 months following the end of the monitoring period, systems must submit a sample copy of the notification and a certification that the system met the delivery requirements to their State.

F.Y.I.

*A sample certification form is provided in Appendix D.*



*Although the lead consumer notification requirements have been added to §141.85, they are distinct from other public education requirements. They apply to all CWSs and NTNCWSs, including those with 90<sup>th</sup> percentiles at or below the lead action level of 0.015 mg/L. As discussed in detail in Section III, a violation of the lead consumer notice requirements is a reporting violation and does not trigger public notification. On the other hand, a public education violation is a treatment technique violation and triggers Tier 2 public notification.*



## E. Advanced Notification/Approval of Long-Term Treatment Changes

The LCRMR required systems that are on reduced lead and copper tap monitoring to notify the State within 60 days of making a change in treatment or adding a new source. The Short-Term Revisions require water systems to receive approval from the State before adding a new source or making any long-term treatment change. When a water system makes long-term changes to its treatment process or adds a new source of water, it can unintentionally affect the system's optimal corrosion control. EPA believes that State review and approval of changes in long-term treatment or addition of a new source will provide an opportunity to minimize any potential impacts on optimal corrosion control.

The Short-Term Revisions clarify EPA's intent by stating that the notification of treatment changes apply to those that would have *long-term* impacts on water quality and in advance of the change. EPA believes that this clarification will prevent water systems from notifying the State and requesting approval for changes that are operational in nature or made on a daily basis.



*A change in treatment or source may necessitate a change in OWQP specifications and corrosion control treatment plans.*

EPA amended the provisions pertaining to systems deemed to have optimized corrosion control treatment, systems on reduced lead and copper tap monitoring, and systems with lead and copper tap monitoring waivers in §§141.81(b)(3)(iii), 141.86(d)(4)(vii), and 141.86(g)(4)(iii). The Short-Term Revisions also make a corresponding change to the reporting requirements in §141.90(a)(3) to require water systems to obtain prior approval from the State to add a new source of water or make any long-term change in water treatment process prior to implementation.

Section 141.90 also provides examples of long-term treatment changes. These examples include the addition of a new treatment process or modification of an existing treatment process such as:



*Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.*

- switching secondary disinfectants (e.g., chlorine to chloramines),
- switching coagulants (e.g., alum to ferric chloride),
- switching corrosion inhibitor products (e.g., orthophosphate to blended phosphate), and
- changing the dosage of existing chemicals if the system is planning long-term changes to its finished water pH or corrosion inhibitor residual concentration.

Additional examples of long-term treatment changes include the installation of membrane filters, ozonation, and enhanced coagulation/enhanced softening to reduce disinfectant by-product precursors. Other treatments to consider are those processes or combinations of processes that can greatly affect the pH, oxidation-reduction potential, alkalinity, or the major composition of the ionic background of the water. These include:



- Initiation of an aeration process (e.g., for radon removal).
- Initiation of disinfection.
- Installation of oxidation/removal process for iron, manganese, hydrogen sulfide, ammonia, and other similar contaminants, in a system previously having minimal or no disinfectant residual. Examples include aeration and filtration, permanganate addition, breakpoint chlorination, greensand, or biologically-active filtration followed by disinfection.
- Change from lime softening to ion exchange softening (alkalinity may increase greatly, causing corrosivity), particularly in ground water systems (more likely to have high alkalinities and thence, copper problems).
- Change from orthophosphate inhibition to pH/alkalinity adjustment as a corrosion control treatment strategy, or vice versa.
- Installation of sorptive or ion-exchange media for arsenic, radionuclide, or other contaminant removal that requires or is operated in such a way as to cause a pH decrease.

Examples of source additions include, but are not limited to:

- (1) Shifting from ground water to surface water supply
- (2) Adding any new source to a system that has different general background water quality. Examples include:
  - Switching source types.
  - Adding a treated surface water to a ground water only system.
  - Adding a new well from an aquifer with different water quality characteristic pertinent to corrosivity (e.g., alkalinity, pH, chloride, sulfate) than the current supply.



*Regularly changing among sources on a seasonal or interannual basis that have been covered by previous LCR OCCT studies and sampling, and are covered within the OCCT designation framework, do not require notification.*

In addition, to assist the State in making its determinations, EPA published “*Simultaneous Compliance Guidance Manual for the Long Term 2 and Stage 2 DBP Rules*” (EPA 815-R-07-017) in March 2007. This document can aid the State in identifying those situations where optimal corrosion control can be affected by changes in treatment or source water.



A copy of this guidance can be downloaded at  
<http://www.epa.gov/safewater/lcrmr/compliancehelp.html>

## F. Public Education Requirements

EPA revised the LCR public education requirements in §141.85. Water systems are still required to deliver public education materials after a lead action level exceedance. However, EPA made significant modifications to the content of the written public education materials (i.e., message content) and added a new set of delivery requirements. In addition, water systems must submit public education language for State review and approval at the option of the State.

This section explains how the Short-Term Revisions have impacted the message content, delivery requirements, and timing requirements. EPA also has developed two public education fact sheets summarizing the public education requirements and two public education guidance documents, *Implementing the Lead Public Education Provisions of the Lead and Copper Rule: A Guide for Community Water Systems*, and *Implementing the Lead Public Education Provisions of the Lead and Copper Rule: A Guide for Non-Transient Non-Community Water Systems*. In addition to providing a detailed explanation of the revisions to the public education requirements, the Public Education guidances explain how to design and implement an effective public education program, and include public education templates that can be adapted for use.



Detailed public education guidance documents for CWSs and NTNCWSs are available at <http://www.epa.gov/safewater/lcrmr/compliancehelp.html>.

### F.I Message Content

During EPA's national review of the LCR, many stakeholders stated that the public education requirements needed improvement. At the September 2004 EPA Public Education Expert Workshop, which was held in Philadelphia, a number of concerns were raised about the effectiveness of the existing public education language and requirements. Workshop participants stated that the mandatory language in the rule was too long, cumbersome, and complex. With some modifications, EPA has included the public education language developed by the National Drinking Water Advisory Council (NDWAC) in the Short-Term Revisions as a replacement to the prior public education requirements of the LCR. The revised public education information is more clear and concise and also encourages the public to take an appropriate course of action to reduce their exposure to lead. The health effects language section was revised by EPA to improve consumer awareness and understanding of potential effects of exposure to lead.

#### F.I.I Requirements Applicable to All Systems Exceeding the Lead Action Level

The Short-Term Revisions require CWSs and NTNCWSs to deliver the same mandatory language that consists of an opening statement, health effects language, and sources of further information (See §§141.85(a)(1)(i), (ii), and (vi) in Appendix B for exact language.) The health effects language has been revised to provide greater specificity on the health problems that can result from exposure to lead (e.g., the original health effects language indicated that lead can cause damage to the brain, while the new language specifies that this damage is associated with lower IQ in children). The revised rule also requires these water systems to include information regarding sources of lead, steps consumers

can take to reduce their lead exposure, any known reasons for elevated lead levels, and steps that the water system is taking to reduce lead levels. However, unlike the prior requirements, water systems have the flexibility to tailor these topics to fit their community and/or situation. For example, previous public education language required water systems to instruct consumers to flush their faucet for 15-30 seconds or one minute (if the home has a lead service line) before drinking the water. The Short-Term Revisions allow systems to tailor flushing directions to their specific situations.

Section 141.85(b)(1) of the Short-Term Revisions specify that the State is to make the determination as to whether the PWS serves a large proportion of non-English speaking consumers. In these instances, the education materials must include either of the following in the appropriate languages: 1) the importance of the notice; or 2) water system contact information that specifies where to obtain a translated copy of the materials or to request assistance [See text box below]. Previously, in those communities where a significant proportion of the population spoke a language other than English, water systems had to provide public education materials in the appropriate languages.

A pink sticky note with a blue pushpin at the top left corner. The text "FYI." is written in black marker.

*EPA recommends that the public education materials include language regarding the importance of both the notice and appropriate contact information.*



*Water systems must submit public education materials to the State prior to their delivery to consumers. States also may require their approval of the content of these materials prior to their delivery.*

### F.1.2 Requirements Applicable to CWSs Exceeding the Lead Action Level

CWS's public education materials must also indicate how consumers can get their water tested, and provide a discussion of lead in plumbing materials and the difference between low-lead and lead-free materials. However, §141.85(a)(7) allows CWSs that meet both of the following requirements (i.e., hereafter referred to as "special CWSs") to apply to the State in writing to forego these requirements:

- The population served cannot make improvements to plumbing or install point-of-use devices (e.g., CWS is a prison, hospital), and
- The CWS does not charge separately for water consumption.

A green sticky note with a red pushpin at the top left corner. The text "Don't FORGET!" is written in black marker, with "Don't" and "FORGET!" in all caps.

*§141.85(a)(7) allow States to waive the requirement for these CWSs to obtain prior approval.*

Exhibit II-5 provides a summary of the revisions to the public education language requirements, their corresponding federal rule citation, and to which systems the requirements apply.

<b>Exhibit II-5. Revisions to Public Education Message Content Requirements</b>		
<b>Revision</b>	<b>Corresponding Rule Section</b>	<b>Applicability</b>
Must submit public education materials to the State prior to delivery to consumers. States may require approval of the content of these materials before their delivery.	§141.85(a)(1)	CWSs and NTNCWSs
If the State determines that the PWS serves a large proportion of non-English speaking consumers, materials must include in appropriate languages: 1) the importance of the notice; or 2) contact information to obtain a translated copy of materials or request assistance.	§141.85(b)	
Public education materials must include the following mandatory language: <ul style="list-style-type: none"> <li>revised mandatory opening statement,</li> <li>health effects, and</li> <li>sources of further information.</li> </ul>	<ul style="list-style-type: none"> <li>§141.85(a)(1)(i)</li> <li>§141.85(a)(1)(ii)</li> <li>§141.85(a)(1)(vi)</li> </ul>	
Any non-mandatory language must be consistent with the requirements in paragraphs (a)(1)(i) - (vi) and in plain language that can be understood by the general public.	§141.85(a)(1)	
Must include language to discuss: <ul style="list-style-type: none"> <li>sources of lead,</li> <li>known reasons for elevated lead levels,</li> <li>steps PWS is taking to reduce lead in drinking water, and</li> <li>steps consumers can take to reduce lead in drinking water.</li> </ul> <i>Previously, prewritten text was already included. Systems can now develop their own text within the guidelines that is applicable to local situation.</i>	<ul style="list-style-type: none"> <li>§141.85(a)(1)(iii)</li> <li>§141.85(a)(1)(iv)</li> <li>§141.85(a)(1)(iv)</li> <li>§141.85(a)(1)(v)</li> </ul>	
Must include language explaining: <ul style="list-style-type: none"> <li>how consumers can get their water tested, and</li> <li>lead in drinking water and the difference between low-lead and lead-free materials.</li> </ul>	<ul style="list-style-type: none"> <li>§141.85(a)(2)(i)</li> <li>§141.85(a)(2)(ii)</li> </ul>	CWSs only*
* §141.85(a)(7) allows “special CWSs” to apply in writing to forego these public education requirements. States may waive the need for prior approval.		

## F.2 Delivery

EPA revised the delivery requirement associated with public education materials to help ensure that consumers, specifically at-risk populations, receive the information they need in a timely manner to limit their exposure to lead in drinking water. The discussion below, distinguishes between those requirements that pertain to all systems delivering public education, or to a subset of systems (e.g., CWSs serving 3,300 or fewer people). Exhibits II-5a and II-5b include a description of the revisions to the delivery requirements for CWSs and NTNCWSs, respectively, the corresponding rule citation for these requirements, the timeframe for public education delivery, and the systems to which the requirements apply.

### F.2.1 Requirements Applicable to CWSs

EPA has expanded the delivery requirements in recognition of the importance of distributing information to the at-risk populations (e.g., pregnant women, infants, and young children) on the

hazards of lead and how individuals can protect themselves from exposure to lead. In addition, since EPA believes that communicating with consumers is important in promoting public awareness, the rule requires systems to continually communicate with consumers for as long as they exceed the lead action level. Each of these delivery requirements are explained in more detail below.

### **Organizations Serving At-Risk**

**Populations:** CWSs must make a “good faith effort” to locate and deliver materials to additional organizations (i.e., licensed childcare facilities, obstetricians-gynecologists and midwives, and preschools) and to include an informational notice with the public education materials explaining the importance of sharing the information with their customers or users.



*A “good-faith effort” to contact at-risk customers can include requesting a contact list of childcare facilities, obstetricians-gynecologists, midwives, and preschools from the local health department, even if the agencies are not within the CWS’s service area.*

The Short-Term Revisions retain the requirement for CWSs to deliver public education materials to the following organizations in their area but adds a requirement to include an informational notice (as discussed in the preceding paragraph): 1) public schools or school boards; 2) Women, Infants, and Children (WIC) and Head Start programs, 3) public and private hospitals and medical clinics; 4) pediatricians; 5) family planning clinics; and 6) local welfare agencies. The Short-Term Revisions also expand this list to include delivery of public education materials and the informational notice to private schools or their school boards.

**Local Health Agencies:** EPA recognizes that local health agencies may be valuable resources for identifying additional community-based organizations that serve target populations. Previously, CWSs were required to distribute public education materials to health departments in their service area. The Short-Term Revisions require CWSs to contact their local health agencies via phone or in-person, rather than relying solely on mailing, to request their assistance in distributing information on lead in drinking water and how people can reduce their exposure to lead. Systems must contact their local public health agencies even if they are located outside the service area of the water systems. Furthermore, the local public health agencies may provide a water system with a specific list of additional community-based organizations serving target populations, which may include organizations outside the service area of the water system. If such lists are provided, systems must deliver materials to all organizations on the provided lists.



*States may want to initiate their own contacts with local health agencies to educate them on the new requirements and alert them to potential contact by the water systems.*

**Required Notification on Water Bills:** The Short-Term Revisions retain the requirements for CWSs to provide a public education statement to all bill-paying customers (see Exhibit II-5 for content) but modify the mandatory alert language to be included on the water bill, as shown in Exhibit II-6.

## Exhibit II-6. Mandatory Health Alert Language on Water Bill

*[INSERT NAME OF WATER SYSTEM] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [INSERT NAME OF WATER SYSTEM] [or visit (INSERT YOUR WEB SITE HERE)].*

The message or delivery mechanism can be modified in consultation with the State; specifically, the State may allow a separate mailing of public education materials to customers if the water system cannot place the information on water bills. This information must be provided at least quarterly for as long as the system exceeds the lead action level.

**Press Releases:** The Short-Term Revisions remove the requirement for medium and large CWSs to provide two public service announcements (PSAs) per year. Instead, CWSs must distribute two press releases as opposed to the one required by the previous LCR.

**Web Site Posting:** Systems serving a population more than 100,000 persons must also post and keep information on a publicly accessible Web site until the system tests at or below the action level.

**Additional Outreach Categories:** In order to make the public education as effective as possible, EPA is giving CWSs some flexibility in how they deliver their public education materials. Section 141.85(b)(2)(vi) requires CWSs to conduct additional outreach activities that they select from the following list in consultation with the State:

1. PSAs.
2. Paid advertisements.
3. Public area informational displays.
4. E-mails to customers.
5. Public meetings.
6. Household deliveries.
7. Targeted individual customer contact.
8. Direct material distribution to all multi-family homes and institutions.
9. Other methods approved by the State.

Systems serving more than 3,300 people are required to select three additional public education activities from one, two, or three categories on this list. Refer to the next section for delivery requirements that are unique to small CWSs.

### F.2.2 Requirements for CWSs Serving 3,300 or Fewer People

Realizing that small systems (those serving 3,300 or fewer people) may have difficulty in completing the public education delivery requirements, the Short-Term Revisions allows these systems to limit certain aspects of their public education program. These systems may limit delivery of public education materials and the informational notice to those places frequented by the most vulnerable populations without written approval from the State. EPA recognizes that small systems are typically aware of the constituents in their community and often have the capability to target specific populations through personal relationships. By removing the requirement to obtain State approval, this provision allows these systems to send public education materials to their vulnerable populations as soon as possible and reduces burden on both the system and the State.



In addition, EPA offers States the option to waive the press release requirements for small systems if they distribute notices to every household they serve. Further, these systems are required to implement a minimum of one activity from any of the nine additional outreach categories listed above and in §141.85(b)(2)(vi) as opposed to three activities for larger systems.

<b>Exhibit II-7a. Revisions to Public Education Delivery Requirements for CWSs</b>		
<b>Revisions and Corresponding Paragraph in §141.85</b>	<b>Timing<sup>1-4</sup></b>	<b>Applicability<sup>5</sup></b>
<u>Bill Paying Customers:</u> <ul style="list-style-type: none"> <li>• Deliver printed public education message on or in water bill [(b)(2)(i)].</li> <li>• Put new mandatory statement on or in water bills. <i>With State approval, PWS can change statement or delivery message.</i> [(b)(2)(iii)]</li> </ul>	<ul style="list-style-type: none"> <li>• Within 60 days &amp; repeating once every 12 months.</li> <li>• Within each billing cycle but no less often than quarterly.</li> </ul>	All CWSs.
<u>Local Health Agencies (LHAs) [(b)(2)(ii)(A)]:</u> <ul style="list-style-type: none"> <li>• Deliver printed public education material.</li> <li>• Provide “informational notice” that encourages LHAs to distribute materials to their at-risk customers.</li> <li>• Contact LHAs by phone or in person.</li> <li>• Request from LHAs, a list of additional community-based organizations serving target populations (may include those outside CWS’s service area).</li> </ul> <i>Note: LHA may be outside CWS’s service area.</i>	Within 60 days and repeating once every 12 months.	All CWSs; however, those serving ≤ 3,300 people can limit distribution to facilities and organizations most likely to be regularly visited by pregnant women and children.
<u>Organizations within Service Area [(b)(2)(ii)(B)]:</u> Deliver printed public education materials and “informational notice” (see above description) to: <ul style="list-style-type: none"> <li>• Public and private schools or school boards.</li> <li>• WIC and Head Start Programs.</li> <li>• Public and private hospitals and medical clinics.</li> <li>• Pediatricians</li> <li>• Family planning clinics.</li> <li>• Local welfare agencies.</li> </ul>		
<u>Other Organizations within Service Area [(b)(2)(ii)(C)]:</u> Make a “good faith” effort to identify* and deliver printed public education materials and “informational notice” to: <ul style="list-style-type: none"> <li>• Licensed childcare centers.</li> <li>• Public and private preschools.</li> <li>• Obstetricians-Gynecologists and Midwives.</li> </ul> <i>*Can include requesting a list of these organizations from LHAs but must deliver to ones outside service area if included on this list.</i>		

## Exhibit II-7a. Revisions to Public Education Delivery Requirements for CWSs

Revisions and Corresponding Paragraph in §141.85	Timing <sup>1-4</sup>	Applicability <sup>5</sup>
Submit press release to newspaper, television, and radio stations [(b)(2)(v)].	Within 60 days and repeating twice every 12 months on a schedule approved by the State.	<ul style="list-style-type: none"> <li>• CWSs serving &gt; 3,300 people.</li> <li>• With State permission, CWSs serving ≤ 3,300 people can distribute notices to every household instead.</li> </ul>
Implement activities from at least one category from list below (b)(2)(vi): <ul style="list-style-type: none"> <li>• Public service announcements.</li> <li>• Paid advertisements.</li> <li>• Public area informational displays.</li> <li>• E-mails to customers.</li> <li>• Public meetings.</li> <li>• Household deliveries.</li> <li>• Targeted individual customer contact.</li> <li>• Direct material distribution to all multi-family homes and institutions.</li> <li>• Other methods approved by the State.</li> </ul> <i>CWS must consult with State regarding public education content and activity selection.</i>	Within 60 days and repeating once every 12 months.	<ul style="list-style-type: none"> <li>• CWSs serving &gt; 3,300 people must implement 3 activities.</li> <li>• CWSs serving ≤ 3,300 people must implement 1 activity.</li> </ul>
Post materials on a publicly accessible Web site [(b)(2)(iv)]	Within 60 days and continuous posting.	CWSs serving > 100,000 people.
<p><sup>1</sup>§141.85(b)(2) clarifies that for CWSs that are not already conducting public education, delivery must be conducted within 60 days after the end of the monitoring period in which the exceedance occurred.</p> <p><sup>2</sup> For systems that exceeded the lead action level while on reduced lead and copper tap monitoring, §§141.85(b)(2)(vii) and (b)(4)(iii) defines the end of the monitoring period for CWSs and NTNCWSs, respectively, as September 30 of the calendar year in which the monitoring occurred or for systems on State-established alternate periods, the last day of that period.</p> <p><sup>3</sup> §141.85(b)(3)(iv) allows the State to extend the 60-day requirement on a case-by-case basis.</p> <p><sup>4</sup> The Short-Term Revisions still require continued public education delivery until the system no longer has an action level exceedance.</p> <p><sup>5</sup> “Special CWSs” such as hospitals and prisons may submit a written request to the State to follow NTNCWS delivery requirements (see Exhibit II.7b). States may waive the need for prior approval.</p>		

### F.2.3 Requirements Applicable to NTNCWSs and “Special” CWSs

The Short-Term Revisions do not modify the delivery requirements for NTNCWSs (other than to change their federal citation). These systems must still display information posters on lead in drinking water in each of the buildings that they serve and distribute materials (State may allow distribution by e-mail) to each person they serve. The Short-Term Revisions also retain the provision for “special CWSs”, such as prisons and hospitals, to apply to the State in writing (unless prior approval is waived) to use the same delivery requirements as NTNCWSs.

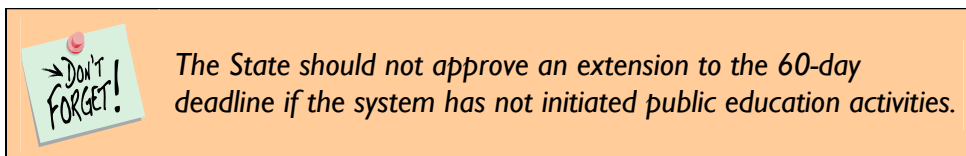


## Exhibit II-7b. Revisions to Public Education Delivery Requirements for NTNCWSs

Revisions and Corresponding Paragraph in §141.85	Timing <sup>1-4</sup>	Applicability <sup>5</sup>
Post informational posters on lead in drinking water in a public place or common area in each of the buildings [(a)(4)(i)].	Within 60 days and repeat annually during each calendar year lead action level exceeded.	NTNCWSs and “Special CWSs.”
Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the NTNCWS. <i>States may allow use of electronic transmission in lieu of or in combination with printed materials.</i> [(a)(4)(ii)]		NTNCWSs and “Special CWSs.”
<sup>1</sup> §141.85(a)(4) clarifies that for NTNCWSs that are not already conducting public education, delivery must be conducted within 60 days after the end of the monitoring period in which the exceedance occurred. <sup>2</sup> §141.85(a)(2)(viii) defines the end of the monitoring period as September 30 of the calendar year in which the monitoring occurred or for systems on State-established alternate periods, the last day of that period. <sup>3</sup> §141.85(a)(5) allows the State to extend the 60-day requirement on a case-by-case basis. <sup>4</sup> “Special CWSs” such as hospitals and prisons may submit a written request to the State to follow NTNCWS delivery requirements listed above. States may waive the need for prior approval.		

### F.3 Timing

The Short-Term Revisions retain the requirement for water systems that exceed the lead action level and are not already conducting public education to complete required activities within 60 days after the end of the monitoring period in which the exceedance occurred. However, §§141.85(b)(3)(iv) and (b)(5) of the Short-Term Revisions allow States to extend the timeframe for CWSs and NTNCWSs, respectively, to complete the public education activities on a case-by-case basis if the extension is approved in writing by the State in advance of the 60-day deadline. This ensures that the system and the State begin public education actions to reduce exposure as soon as possible, but allows these actions to continue past the 60-day timeframe on a case-by-case basis as needed for effective implementation.



As illustrated in Exhibits II-7a and II-7b, most public education requirements must be repeated annually until the system no longer exceeds the lead action level. Some activities must be conducted more frequently as follows:

- CWS provide the mandatory informational statement (see Exhibit II-6) on or in water bills with each billing cycle but no less frequently than quarterly;
- CWSs must deliver press releases twice every 12 months on a schedule agreed upon with the State; and
- CWSs serving more than 100,000 people must retain material on a publicly accessible Web site.

## G. Consumer Confidence Report

The Short-Term Revisions modify the requirements of the CCR Rule in §141.154. Previously, all water systems that detected lead above the action level in more than 5 percent of the homes sampled had to include a short informational notice about lead in their CCR. EPA is requiring all CWSs to provide information in their CCRs on lead in drinking water irrespective of whether the system detected lead in any of its samples.

EPA believes that exposure to lead can be a localized phenomenon and has revised the rule based on concerns that exposure to lead may be taking place, even though the action level is not exceeded; consumers, therefore, currently may not receive sufficient information on how to reduce their exposure to lead.

This short educational statement will help to ensure that all vulnerable populations or their caregivers receive information (at least once a year) on how to reduce their risk to lead in drinking water (see Exhibit II-8 for this statement). EPA incorporated NDWAC's recommended changes to the informational notice, which clarify the risk of lead in drinking water, include basic steps on how to reduce exposure to lead in drinking water, and provide sources of additional information.

Additionally, requiring all systems to have one statement will simplify compliance with this provision of the rule for the systems and the States. However, the CCR revisions allow a system to write its own educational statement, but only in consultation with the State. For example, the system may wish to revise the flushing time of "30 seconds to 2 minutes" if it conflicts with the flushing information in its public education materials or to add the phone number for the Safe Drinking Water Hotline (1-800-426-4791).

### Exhibit II-8. Short Informational Statement

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.



*CWSs in States where EPA is the Primacy Agency or have adopted the Short-Term Revisions by December 2008 must begin including this lead informational statement in CCRs that are due to consumer by July 1, 2009 (i.e., the 2008 CCR). Otherwise, CWSs must begin to include this information in the 2009 CCR.*

## H. Reevaluation of Lead Service Lines

Lead service line replacement is intended as an additional step to reduce lead exposure when corrosion control treatment is unsuccessful. The provision in §141.84(c), allows systems to leave in place an individual lead service line if the lead concentration in all service line samples from that line is less than or equal to 0.015 mg/L. It is intended to maximize the exposure reduction achieved per service line replaced by avoiding the disruption and cost of replacing lines that are not leaching elevated levels of lead. However, samples taken from a lead service line cannot predict future conditions of the system or of the service line. Systems can discontinue a lead service line replacement program by meeting the lead action level for two consecutive 6-month monitoring periods.

The Short-Term Revisions require water systems to reconsider any lines previously determined to not require replacement (i.e., “replaced through testing”) when they exceed the action level again in the future and resume the lead service line replacement program. Specifically, the newly added subsection (2) in §141.84(b) requires water systems to update their inventory of lead service lines to include those that were classified as “replaced through testing.” The system will then divide the updated number of remaining lead service lines by the number of remaining years in the program to determine the number of lines that must be replaced per year (see example to the right). In the event that a system completed its 15-year (or accelerated) replacement program but has lead service lines that were considered replaced through testing, the State will determine a schedule for replacing or retesting lines these lines should the system have a subsequent lead exceedance.



### EXAMPLE - Reconsidering Lines "Replaced through Testing"

- A PWS exceeded the lead action level in July – December 2005 after installing corrosion control treatment, and thus is triggered into lead service line replacement (LSLR).
- It began with 60 lead service lines in its inventory.
- During 2006 and 2007, 3 lines were physically replaced and 4 lines were replaced through testing (for a total of 7 lines over these two years).
- During the monitoring period of Jan. – June and June – Dec. 2007, the system was below the lead action level and therefore, discontinued LSLR.
- The PWS began annual monitoring in 2008.
- In 2009, it exceeded the lead action level.
- The PWS is triggered back into LSLR on Oct. 1, 2009 (i.e., the day after the end of the monitoring period in which the exceedance occurred).
- The PWS has 57 lead service lines in its inventory to be considered (because it must include the 4 previously considered “replaced through testing”).
- It must replace 57 lines over the remaining 13 years or 4 to 5 lines per year.

*Note that any retested or newly tested lines that are at or below 0.015 mg/L are considered replaced.*

F.Y.I.

*A PWS must reconsider and retest the lines “replaced through testing” each time it is required to resume its lead service line program.*

## I. Other Issues Related to the LCR

In the July 18, 2006 proposed Short-Term Revisions (137 FR 40828), EPA requested comment on the following four areas for which the Agency has decided not to make any further rule changes: site selection in areas with water softeners and point-of-use (POU) treatment units; defining plumbing component replacement, and POU and point-of-entry (POE) treatments as optimal corrosion control treatment; and synchronization of WQP monitoring with lead and copper tap monitoring. Each of these is discussed in more detail below.

### I.1 Site Selection in Areas with POE and POU Treatment Units

Many homes have whole house (i.e., POE) water softeners or treatment units at the kitchen tap (i.e., POU), even though the system is not installing and maintaining these units. Section 141.86(a)(1) states that sampling sites may not include faucets that have POU or POE treatment devices designated to remove inorganic contaminants. However, some areas of the country may find that the prevalence of POE water softeners restricts the ability of the water system to find homes where these units are not installed. This scenario is discussed in EPA's *Lead and Copper Rule Guidance Manual Volume 1: Monitoring* that was published in September 1991. Figure 3-2 in that manual described preferred sampling pool categories for targeted sampling sites. Category F.2 was listed as an exception case for water systems that only have sites where water softeners have been installed. This situation has been observed in the mid-western United States. The guidance states that these systems should select the highest risk sites (newest lead solder or lead service lines) and monitor at those locations even though the water softener is present.

EPA requested public comment on whether the LCR should be amended to allow sampling at locations with POU/POE devices used to remove inorganic contaminants in exceptional cases (such as systems with high prevalence of water softeners), and if so, how high risk sites in these locations should be identified. EPA specifically requested comment on whether the Agency should codify the guidance provision discussed above.

EPA decided not to revise the LCR with respect to monitoring at sites with POE and POU devices. The Agency has decided that the current §141.86(a)(5) provides flexibility as follows, "A community water system with insufficient tier 1, tier 2, and tier 3 sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For the purpose of this paragraph, 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." A comparable provision for NTNCWS is provided in §141.86(a)(7). EPA believes that the current rule provisions and guidance on this issue are sufficient at this time.

### I.2 Plumbing Component Replacement as Optimal Corrosion Control Treatment

EPA requested comment as to whether plumbing replacement should be specifically defined as a corrosion control technique, or explicitly identified as an alternative to corrosion control optimization for small and medium systems. EPA also requested comment on whether 12 months is sufficient time for a small or medium system to replace plumbing components and proposed to allow 24 months to complete the replacement before the State would determine if these systems must conduct a corrosion control study.

EPA also listed a number of questions that would need to be resolved before listing plumbing component replacement as a corrosion control technique or an alternative to corrosion control as follows:

1. What materials should be used for replacement materials, since “lead-free” products still contain lead?
2. What components would be replaced—just end-point devices such as faucets or would it also include in-line devices, such as valves and water meters?
3. What would be the enforceable WQPs for this alternative to corrosion control?
4. How would excursions from the OWQPs be measured?
5. If these techniques are listed under §141.81(c)(1) as corrosion control techniques, would all systems need to evaluate them as part of the corrosion control study?
6. For systems that fail to meet the action level, would the State still need to specify the minimum pH values, even though the system may not be adjusting pH?

Some water systems may choose to replace plumbing fixtures, pipes, and components to greatly reduce the amount of lead or copper in tap water to a level below the action level. Generally this approach only applies to water systems that have 100% ownership over the plumbing infrastructure (e.g., some NTNCWSs such as schools and other institutions). Small or medium water systems can use fixture replacement with existing provisions of the LCR to become optimized. Under §141.81(b)(1), these systems are deemed to have optimized corrosion control if they meet the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with §141.86. Thus, water systems, where 100% of the plumbing fixtures and components are directly controlled by the system, could replace them and be optimized once the system met the action level for two consecutive six-month monitoring periods.

However, because fixture replacement is not currently a type of corrosion control treatment, when a system exceeds the action level, it must initiate the treatment steps under §141.81(e) that require the evaluation of corrosion control options and the recommendation of optimal corrosion control treatment. EPA believes that there is sufficient flexibility under the current rule for systems that replace plumbing to qualify as optimized under §141.81(b)(1) without having to undertake an unnecessary evaluation of corrosion control options. Under §141.81(e)(2), after an initial action level exceedance, the system has 12 months (or two monitoring periods) before the State makes a determination about requiring a corrosion control study. Under §141.81(e)(2)(ii), where the State does not require a system to conduct a corrosion control study, a system has 24 months after the action level exceedance (or four monitoring periods) before the State specifies optimal corrosion control treatment. As a result, a water system could replace the plumbing and conduct monitoring to demonstrate that it is below the action level for two consecutive six-month monitoring periods within this 24-month period, although to do this, they would have to complete the plumbing replacement within 12 months of exceeding the action level.

In the final Rule, EPA decided not to list a fixture replacement strategy as optimal corrosion control for several reasons. As stated above, EPA believes that there is sufficient flexibility under the existing rule for some systems to pursue a fixture replacement strategy without having to undertake unnecessary treatment evaluation. Further, fixture replacement may not be successful in reducing lead below the action levels if some lead sources remain in the plumbing system. In addition,



plumbing fixture replacement is not a corrosion control technique and therefore, would not have OWQPs that could be set by the State if the system continued to exceed the action level.

### **I.3 POU and POE Devices as Optimal Corrosion Control Treatment**

EPA requested comment as to whether use of POU or POE devices should be specifically defined as a corrosion control technique, or explicitly identified as an alternative to corrosion control optimization for small systems. EPA also requested comment on whether 12 months is sufficient time for a small system to install POU devices and proposed to allow 24 months to complete this installation before additional corrosion control treatment steps would be required. Further, EPA identified similar questions to those identified for fixture replacement that would need to be resolved before listing POU or POE as an alternative to corrosion control (refer to questions 3 through 6 in the previous section).

The SDWA identifies POU and POE devices as potential compliance technologies for small systems if they meet the following requirements: 1) they are owned, controlled and maintained by the PWS or its contractor to ensure proper operation and maintenance and compliance with the treatment technique; 2) they are equipped with mechanical warnings to ensure that customers are automatically notified of operational problems; and (3) if the American National Standards Institute (ANSI) has issued product standards applicable to a specific type of POU or POE treatment unit, individual units of that type will not be accepted for compliance with a treatment technique requirement unless they are independently certified in accordance with such standards.

EPA believes that small systems can use POU or POE devices, if they meet the SDWA requirements discussed above for their use, to comply with the LCR under existing provisions of the rule. Under §141.81(b)(1), a small or medium-size system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with §141.86. Thus, small water systems where POU devices are installed and meet the SDWA requirements could be optimized once the system met the action level for two consecutive six-month monitoring periods after their installation at all sites. Although small water systems can use POU or POE devices to meet the lead or copper action level, this method of compliance is not specified in the current LCR as a corrosion control technique. As a result, the same issue arises as discussed above with respect to plumbing replacement.

EPA decided not to list POU or POE installation as optimal corrosion control treatment for several reasons. First, EPA believes that sufficient flexibility exists under the current rule for small systems to utilize POU or POE devices to meet the action level and be deemed optimized under §141.81(b)(1). Where a State does not require a corrosion control study, systems have 24 months after an action level is exceeded before the State specifies optimal corrosion control treatment. POU or POE installation would need to be completed within 12 months of exceeding the action level in order to complete two consecutive six-month monitoring periods before the State specifies optimal corrosion control. In those instances where a study is required, small systems have a maximum of 36 months after an action level is exceeded before the State specifies this treatment. Second, unless the POU option was limited to only those systems that control 100% of the distribution system, the system may not be able to secure participation from all sites and may need to install corrosion control. Third, EPA is concerned that lead-containing plumbing materials (e.g., faucets, solder joints) may be in place after the POE device and could still contribute high lead levels if the water is corrosive.

## I.4 Synchronization of WQP Monitoring

The final issue on which EPA requested comment was synchronization of WQP sampling with lead and copper tap sampling. Large systems would be required to take their required lead and copper samples at the same time they take their required WQP samples. Small and medium systems would be required to synchronize this monitoring during those monitoring periods in which they are required to collect WQP samples after the State sets OWQPs. This synchronization would allow water systems to associate changes in WQP levels with lead and copper levels and help systems monitor the effectiveness of their corrosion control program.

While many commenters supported the scientific rationale for this proposed change, a number of comments received expressed concern over which synchronization timeframe would be appropriate and the feasibility of implementing a synchronized sampling approach. Several large systems noted that this synchronization would be difficult to coordinate because homeowners collect the lead and copper tap samples and the utility does not know the exact date that they will collect samples. Some commenters noted that current WQP sampling requirements for systems on reduced monitoring require these systems to take their WQP samples throughout the year in order to capture seasonal variability. Also, because WQP monitoring for small and medium systems may be limited to those monitoring periods during which the water systems exceed an action level, these systems often delay WQP monitoring until lead and copper tap monitoring has been completed and the 90<sup>th</sup> percentile level has been calculated. Due to the complexity of issues, challenges with implementation, and potential burden, EPA has decided not to revise the LCR to require WQP synchronization at this time, but will revisit this issue in future revisions to the rule.





## SECTION III: PRIMACY STATE REPORTING REQUIREMENTS AND SNC DEFINITIONS

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This section provides an explanation of how the Primacy State reporting requirements have been revised in response to the Short-Term Revisions and an overview of the SNC definitions for the LCR.

### A. Summary of Revised Primacy State Reporting Requirements

The purpose of this summary is to provide State Primacy Agencies with an understanding of how their reporting requirements have been impacted by the Short-Term Revisions. This guidance updates some of the reporting requirements presented in Appendix B of the October 2001 *State Implementation Guidance for the Lead and Copper Rule Minor Revisions* (EPA 816-R-01-021).



A copy of the October 2001 guidance can be downloaded at <http://www.epa.gov/safewater/lcrmr/compliancehelp.html>.

#### A.1 How Have State Reporting Requirements Changed?

The Short-Term Revisions have minimally impacted Primacy State reporting requirements under 40 CFR 142.15. To address these revisions, EPA has added one new violation type (to bring the total to 11) and revised the violation definitions for three violation types. EPA has not revised any of the milestone reporting requirements. These reporting changes are discussed in more detail below.

**New Violation Code:** EPA has added a new violation code to identify those water systems that do not meet the lead consumer notice requirements. Specifically, §§141.80(g) and 141.85(d) require all water systems

to provide consumer notification of lead tap water monitoring results to individuals served at sites that were




*The lead consumer notice requirement applies to all systems regardless of their lead levels.*

tested within 30 days of learning the results. As previously discussed in section II.D, the notice must also include an explanation of the health effects of lead; steps consumers can take to reduce exposure to lead in drinking water; water utility contact information; the MCLG and the action level for lead; and the definitions for these two terms from the CCR Rule. The lead consumer notice must be delivered by mail or by another State-approved method (e.g., posting by NTNCWSs) to people served by the tested tap, including consumers who do not receive water bills.


Section 141.90(f)(3) requires systems to submit to the State a sample copy of the lead consumer notification and a certification that the notification meets the delivery requirements of §141.85(d) within three months after the end of the monitoring period. Systems that fail to meet the timing,

content, and delivery requirements of §141.85(d) or reporting requirements in §141.90(f)(3) will be in violation of the lead consumer notice requirements.



*The 30-day notice applies to each lead sample result. Therefore, a system that collected 10 samples would provide 10 separate notices within 30 days of receiving each result. It would provide the State with a sample notice and one certification within 3 months after the end of the monitoring period.*

It is important to keep in mind that although the requirements for consumer notification are included under §141.85, they are considered separate from public education requirements. All systems regardless of whether they have a lead action level exceedance must provide this notification. A violation of these requirements constitutes a separate violation from those systems that do not meet the public education requirements. In addition, a lead consumer notice violation is a type of reporting violation; whereas a public education violation is a treatment technique (TT) violation. A system that fails to meet its lead consumer notice requirements is not required to deliver public notification. A system must deliver Tier 2 public notification for failure to meet its public education requirements.



*For more information on public notification requirements, go to:*  
<http://www.epa.gov/safewater/pn.html>.

Exhibit III-1 provides an explanation of the violation type code, contaminant code, and definition for a lead consumer notice violation. Examples of how to report this violation to EPA's Safe Drinking Water Information Systems/Operational Data System (SDWIS/ODS) are provided in Appendix E.

Exhibit III-1. Consumer Notification Violation			
Violation Type Code	Contaminant Code	Violation Name	Definition
66	5000	Lead Consumer Notice	<b>Failure to meet any of the following:</b> <ul style="list-style-type: none"> <li>• Provide notice of lead results to individuals served by taps used for lead and copper tap monitoring in accordance with §141.85(d)(1);</li> <li>• Meet the timing requirements for providing the notice in accordance with §141.85(d)(2);</li> <li>• Meet the content requirements in §141.85(d)(3);</li> <li>• Meet the delivery requirements in §141.85(d)(4); and</li> <li>• Meet the reporting requirements in §141.90(f)(3) to send a sample notification and certification to the State.</li> </ul>

## **What to Remember About this Violation:**

- One single lead consumer notice violation (type 66) is reported to SDWIS/ODS regardless of the reason or reasons for the violation.
- The begin date of the violation is always 3 months plus one day after the end of the applicable monitoring period (i.e., the day after the certification is due to the State).

Therefore:

<i><b>If the monitoring period is:</b></i>	<i><b>The violation begin date would be:</b></i>
January – June	October 1 of the same calendar year
June – September	January 1 of the next calendar year
July – December	April 1 of the next calendar year

- The end date of the violation is defaulted by SDWIS/ODS to December 31, 2025.
- The end date will automatically be replaced when the State reports the date that the system has “returned to compliance.”
- A system returns to compliance when it meets the content requirements in §141.85(d)(3), the delivery requirements in §141.85(d)(4), and the reporting requirements to the State in §141.90(f)(3) .
- Return to compliance (i.e., “compliance achieved”) is reported as an SOX (State) or less commonly by EPA as EOX (federal) action type.
- The period of violation ends when either the SOX/EOX actions are reported and linked to the violation.
- If the system returns to compliance before the violation is required to be reported, do not use the end date of December 31, 2025. Instead, use the date that the system returned to compliance.



*For those systems where EPA is the Primacy Agency or in States that adopt the Rule by reference, the lead consumer notice requirements will become effective on April 7, 2008. For these systems, the earliest that a “66” violation could be reported to SDWIS/ODS is Nov. 15, 2008. This assumes that the system is monitoring during Jan. - June 2008, and receives some of its lead and copper results after April 7, 2008. The State would become aware of the violation on Sept. 30, 2008 when the certification is due (either because the certification is late or based on the information provided in the certification). The violation would be reported on Nov. 15, 2008.*

## A.2 Which Violation Definitions Have Been Revised?

The October 2001 LCRMR reporting guidance provided definitions for each of the 10 pre-existing violation types. In addition, to the new lead consumer notice violation, the Short-Term Revisions impact the violation definitions for following three violation types: follow-up or routine lead and copper M/R (52), study/treatment recommendation (57), and public education (65); however, their reporting requirements have not changed.

Exhibit III-2 below provides a comprehensive list of LCR violation definitions including the new lead consumer notice violation. Those violation types that have been revised are shaded in blue.

### Exhibit III-2. LCR Violation Definitions as Revised by the Short-Term Revisions

#### **LEAD CONSUMER NOTICE (Violation Code: 66)**

**NEW**

##### **Failure to meet any of the following:**

- Provide notice of lead results to individual served by taps used for lead and copper tap monitoring in accordance with §141.85(d)(1);
- Meet the timing requirements for providing the notice in accordance with §141.85(d)(2);
- Meet the content requirements in §141.85(d)(3);
- Meet the delivery requirements in §141.85(d)(4); or
- Meet the reporting requirements in §141.90(f)(3)

#### **INITIAL LEAD AND COPPER TAP M/R (Violation Code: 51)<sup>1</sup>**

##### **Failure to meet any of the following:**

- Use appropriate sampling procedures in accordance with §§141.86(a) and (b);
- Collect the required number of samples during the specified time frame in accordance with §§141.86(c) and (d)(1);
- Ensure samples are analyzed properly in accordance with §141.89(a), **or**
- Submit all required monitoring information on time in accordance with §141.90(a).

##### **If you adopted the LCRMR sample invalidation and monitoring waivers provisions, the violation definition also includes systems that:**

- Do not meet replacement sample requirements for invalidated samples as described in §141.86(f)(4) where these samples are needed to meet minimum sampling requirements;
- Do not meet the conditions of their monitoring waivers in §141.86(g) or provide required information in §§141.90(a)(4)(i)-(iv);<sup>2</sup>
- Do not provide sample information needed for you to perform the 90th percentile calculation as outlined in §141.90(h); **or**
- Collect non-first draw samples that do not meet the criteria in §141.86(b)(5).

<sup>1</sup>This violation type is no longer applicable to most systems and now only applies to new systems or system that were not previously required to conduct lead and copper tap monitoring.

<sup>2</sup>The October 2001 reporting guidance incorrectly listed the citation as §§141.90(a)(4)(ii) – (iv).

## Exhibit III-2. LCR Violation Definitions as Revised by the Short-Term Revisions

### **FOLLOW-UP OR ROUTINE LEAD AND COPPER TAP M/R (Violation Code: 52)**

#### **Failure to meet any of the following:**

- Use appropriate sampling procedures in accordance with §§141.86(a) and (b);
- Collect required number of samples during the required time frames in accordance with §§141.86(c) & (d)(2)-(4);
- Ensure samples are analyzed properly in accordance with §141.89(a);
- Submit all required monitoring information on time in accordance with §141.90(a);
- Do not meet replacement sample requirements for invalidated samples as described in §141.86(f)(4) where these samples are needed to meet minimum sampling requirements, *if your regulations include this provision*;
- Do not meet the conditions of their monitoring waivers in §141.86(g) or provide required information in §141.90(a)(4)(i)-(iv), *if your regulations include this provision*;
- Do not provide sample information needed for the State to perform the 90<sup>th</sup> percentile calculation as outlined in §141.90(h);
- Collect non-first draw samples that do not meet the criteria in §141.86(b)(5), *if your regulations include this provision*;
- For systems on reduced monitoring, fail to report a long-term change in treatment, or an addition of a new source, within the time frame which you specify or as early as possible in accordance with §§141.81(b)(3)(iii), 141.86(d)(4)(vii), 141.86(g)(4)(iii), & 141.90(a)(3), *if your regulations include this provision*;
- Do not receive prior State approval before implementing the long-term change or adding the new source in accordance with §§141.81(b)(3)(iii), 141.86(d)(4)(vii), 141.86(g)(4)(iii), & 141.90(a)(3), *if your regulations include this provision*; or
- For systems on reduced monitoring, and placed on alternate lead and copper tap schedules, fail to meet the monitoring deadline when transitioning to the alternate period, *if your regulations include this provision*.

### **INITIAL, FOLLOW-UP, OR ROUTINE WQP M/R (Violation Code: 53)**

#### **Failure to meet any of the following:**

- Use appropriate sampling procedures in accordance with §§141.87(a)(1), (b)-(c);
- Collect required number of samples in accordance with §141.87(a)(2) or (c);
- Ensure samples are analyzed properly in accordance with §141.89(a); **or**
- Submit all required monitoring information on time in accordance with §141.90(a)

#### **If you adopted the LCRMR provision that allowed representative WQP monitoring for ground water systems, the definition also includes ground water systems that:**

- Do not meet their State-approved sampling plan for collecting WQPs at representative entry point locations in accordance with §§141.87(a)(5) & (c)(2).

### **INITIAL, FOLLOW-UP, OR ROUTINE SOURCE WATER M/R (Violation Code: 56)**

#### **Failure to meet any of the following:**

- Use appropriate sampling procedures in accordance with §§141.88(a)(1) and (2);
- Collect required number of source water samples in accordance with §§141.88(a)(1) - (c)(3);
- Ensure samples are analyzed properly in accordance with §141.89(a); **or**
- Submit all required sampling information on time in accordance with §141.90(b).

### **STUDY/ TREATMENT RECOMMENDATION (Violation Code: 57)**

#### **For an OCCT Study/Recommendation violation, failure to meet any of the following:**

- Submit an OCCT recommendation on time in accordance with §§141.82(a) and 141.90(c)(2);
- Submit an “acceptable” study on time in accordance with §§141.82(c) and 141.90(c)(3); **or**
- Provide additional information needed by the State to make an OCCT determination in accordance with §141.82(d)(2).

#### **For an SOWT Recommendation violation, failure to meet the following:**

- Submit a SOWT recommendation no later than 180 days after the end of the monitoring period during which the lead or copper action level was exceeded in accordance with §§141.83(a)(1) & 141.90(d)(1).

## Exhibit III-2. LCR Violation Definitions as Revised by the Short-Term Revisions

### **TREATMENT INSTALLATION/DEMONSTRATION (Violation Code: 58)**

**For an OCCT Installation violation, failure to meet any of the following:**

- Have the State-designated treatment properly installed and operating in accordance with §141.82(e);
- Submit a certification of proper installation and operation in accordance with §141.90(c)(4), **or**
- Demonstrate that OCCT already exists in accordance with §§141.81(b)(1)-(3) and 141.90(c)(1).

**For an SOWT Installation violation, failure to meet any of the following:**

- Properly install and operate SOWT in accordance with §§141.83(b)(3) and (5), **or**
- Submit certification to the State of proper SOWT installation and operation, in accordance with §141.90(d)(2).

### **WQP ENTRY POINT *or* TAP NONCOMPLIANCE (Violation Code: 59)**

**Failure to:**

- Maintain OWQP minimum or ranges in accordance with §141.82(g).

**If you adopted the OWQP compliance method from the LCRMR, the violation definition also includes failure to:**

- Meet daily values for more than 9 days in a 6-month monitoring period in accordance §141.82(g).

### **MAXIMUM PERMISSIBLE LEVEL (MPL) NONCOMPLIANCE (Violation Code: 63)**

**Failure to:**

- Meet either State-designated or approved MPL in accordance with §141.83(b)(5).

### **LEAD SERVICE LINE REPLACEMENT (LSLR) (Violation Code: 64)**

**Failure to meet any of the following:**

- Replace the required amount of lead service lines (LSLs) by the annual deadline, in accordance with §§141.84(a) & (b); **or**
- Report the required LSL information on time, in accordance with §141.90(e) that demonstrates that the replacement rate was met.

**In cases of where the system does not replace the entire LSL (i.e., “partial LSLR replacement”), the LCRMR expanded the definition to include failure to:**

- Provide notice and guidance to residents at least 45 days before LSLR begins (unless you allow a shorter notification period);
- Collect a tap sample within 72 hours of completing the partial LSLR;
- Mail and/or post results of the analysis to the owner and residents within 3 days of receipt of the results; **or**
- Report information that you deem necessary to assess whether the system met its partial LSLR monitoring and notification requirements.

### **PUBLIC EDUCATION (Violation Type: 65)**

**Failure to meet any of the following:**

- Provide public education that meets the content requirements in §§141.85(a);
- Meet the public education delivery requirements of §141.85(b).
- Report required public education information on time, within 10 days after the end of the period in which public education was required, in accordance with §141.90(f)(1) & (2).

## **B. Significant Noncompliers (SNCs)**

### **B.1 What is a SNC?**

A Significant Noncomplier (SNC) is a system that has more serious, frequent, or persistent violations. The SNC designation is reserved for those systems that are considered to pose the most serious threats to public health.


## B.2 Have the SNC Definitions Been Revised as a Result of the Short-Term Revisions?

The Short-Term Revisions do not affect the three SNC types or their definitions.

## B.3 What Are the SNC Definitions for the Three SNC Types?

Exhibit III-3 lists the three types of SNCs, the system to which these SNCs apply, and their corresponding definitions.

Exhibit III-3. Lead and Copper Rule SNC Definitions		
SNC Type	Systems Affected	Definition
Initial lead and copper M/R	All System Sizes	A system which failed to meet all monitoring and reporting requirements
Installation/Demonstration (OCCT and/or SOWT)	Only systems with 90 <sup>th</sup> percentile lead levels of $\geq$ 0.030 mg/L	System with this violation & 90 <sup>th</sup> percentile lead level of $\geq$ 0.030 mg/l in the most recent monitoring period
Public Education	Only systems with 90 <sup>th</sup> percentile lead levels of $\geq$ 0.030 mg/L	System with this violation & 90 <sup>th</sup> percentile lead level of $\geq$ 0.030 mg/l in the most recent monitoring period

 A system that does not meet its lead consumer notice requirements would be assigned an “66” violation and would not become an SNC.







## SECTION IV: REVISIONS BY RULE SECTION

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This section provides a summary of those rule provisions that have been revised by the LCR Short-Term Revisions and is organized by federal rule section (e.g., §141.80). A more detailed explanation of the Short-Term Revisions was provided in Section II. In addition, Appendix B provides the verbatim rule language of the Short-Term Revisions compared to the previous LCR language.

The provisions of the Short-Term Revisions fall into two general categories: 1) those provisions that States must adopt to retain primacy because they are more stringent than the current requirements and; 2) those that are not more stringent, but allow flexibility and improvements in implementation. The latter revisions are identified below with the symbol . EPA includes in the “more stringent” category all the changes in the Short-Term Revisions that clarify when specific actions must take place (e.g. clarifications concerning “monitoring periods” and “compliance periods”) because the ambiguity in the LCR may have lead to less stringent implementation of those provisions. EPA is also including as “more stringent” most of the changes to the public education provisions because those provisions work together to collectively provide more comprehensive public education than the previous version of the rule. This designation is also used in the Primacy Revisions Crosswalk in Appendix A. States are not required to adopt the less stringent changes to maintain primacy. However, some States may not be able to implement these changes until they update their own regulations.





*Large systems serve more than 50,000 people.*


*Medium systems serve 3,301 – 50,000 people.*

*Small systems serve 3,300 or fewer people.*

### Section 141.80 General Requirements

-  **(a)(2):** Deletes effective dates of the LCR that no longer apply.
-  **(c)(3)(v):** New section, which specifies for PWSs that collect fewer than 5 tap water samples (allowed under §141.86(c)), the 90<sup>th</sup> percentile level is the highest sample result.
- (g):** Requires systems to provide a consumer notice of lead tap water monitoring results to all consumers served by taps used for compliance monitoring.

### Section 141.81 Applicability of Corrosion Control Treatment Steps to Small, Medium-Size and Large Water Systems

-  **(b)(3)(iii):** Limits the notification of a treatment change by water systems that are deemed to have optimized corrosion control to “upcoming long-term treatment changes.” *Note: States are not required to adopt that portion of the new requirement that limits prior notification and approval to only treatment changes that are long-term in nature.*

Paragraph (b)(3)(iii) also adds a new requirement for the State to review and approve the addition of a new source or long-term change in treatment before the system can implement the addition or change. *Note: States must adopt the requirement for prior review and approval of the treatment change or source addition.*

**(e)(1):** Clarifies that a system exceeding an action level must recommend optimal corrosion control treatment within six months after *the end of the monitoring period during which* it exceeds an action level.

**(e)(2):** Clarifies that the State must decide whether a system is required to conduct a corrosion control study no later than 12 months after *the end of the monitoring period during which* the system exceeds an action level.

**(e)(2)(i):** Clarifies that for medium-size systems that are not required to conduct corrosion control studies, the State will specify optimal corrosion control treatment within 18 months after *the end of the monitoring period during which* the system exceeds an action level.

**(e)(2)(ii):** Clarifies that for small systems that are not required to conduct corrosion control studies, the State will specify optimal corrosion control treatment within 24 months after *the end of the monitoring period during which* the system exceeds an action level.

### **Section 141.82 Description of Corrosion Control Treatment Requirements**

The Short-Term Revisions do not modify the provisions in this section.

### **Section 141.83 Source Water Treatment Requirements**

**(a):** Clarifies the deadline for completing initial lead and copper source water monitoring and making a treatment recommendation to the State. The new language requires these activities to be completed no later than 180 days after the end of the monitoring period during which an action level was exceeded instead of within 6 months of an action level exceedance.

### **Section 141.84 Lead Service Line Replacement Requirements**

**(b)(1):** Clarifies that 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. Also specifies that for systems that exceeded the lead action level while on a reduced monitoring schedule, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or for systems on a State-specified alternate lead and copper tap monitoring period, the end of the monitoring is the last day of that period.

**(b)(2):** Section 141.84(c) allows water systems to test the lead concentration of an individual lead service line. If the lead concentration in all service line samples from that line does not exceed 0.015 mg/L, the system is not required to replace this line and the line counts as being replaced. The new paragraph (b)(2) requires systems that resume a lead service line replacement program to update their lead service line inventory to include those sites that previously were deemed “replaced through testing”. Paragraph (b)(2) also requires systems to 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 per year. If a system has completed a 15-year or an accelerated lead service line replacement program, the State will determine a schedule for replacing or retesting lines.

**(f):** Updates the paragraph to reference the newly added §141.84(b)(2). *Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*

### **Section 141.85 Public Education and Supplemental Monitoring Requirements**

**Introductory text:** Adds a requirement for all water systems (including those with 90<sup>th</sup> percentile lead samples at or below the lead action level) to provide a consumer notice of the lead tap water monitoring results to all individuals served by the sites from which samples were collected. Also references the requirement in paragraph (c), *Supplemental monitoring and notification results*, which require PWSs that exceed the lead action level to sample the tap water of any consumer who requests it.

**(a)(1):** Requires CWSs and NTNCWSs to follow the same requirements regarding the content of written public education materials in paragraph (a)(1). Previously, separate CWS and NTNCWS public education content requirements were specified in paragraphs (a)(1) and (a)(2), respectively, and specific broadcast language for CWSs was provided in paragraph (b). The Short-Term Revisions also require systems to include mandatory language as written in paragraphs (a)(1)(i) (opening statement), (ii) (health effects of lead), and (vi) (contact information), and system-specific information for the text in brackets in these paragraphs. Specifies that non-mandatory language be in plain language that can be understood by the general public and be consistent with the requirements in paragraphs (a)(1)(i) through (vi). Adds a requirement for systems to submit written public education materials to the State prior to delivery and allows the State to require approval of these materials prior to delivery.

**(a)(1)(i):** Replaces the “Introduction” with a mandatory opening statement that stresses the importance of reading the public education materials.

**(a)(1)(ii):** Revises the mandatory health effects language to provide greater specificity on the health problems that can result from exposure to lead.

**(a)(1)(iii)(A)-(C):** Replaces the mandatory “Lead in drinking water” language with suggested topics that explain sources of lead in drinking water. These topics include: an explanation of what lead is, possible sources of lead in drinking water and how lead enters it (including information on lead-containing plumbing materials), and other important sources of lead in addition to drinking water (e.g., paint).

**(a)(1)(iv)(A)-(E):** Replaces the mandatory “Steps you can take to reduce your exposure to lead in drinking water” language with suggested topics that explain these steps. Recommended steps to include are: flushing the tap, concerns about using hot water (especially for preparing baby formula), explaining that boiling water does not reduce lead levels, use of alternate sources or treatment, and testing children’s blood for lead.

**(a)(1)(v):** Requires public education materials to explain the reason(s) for elevated levels of lead in the system’s drinking water (if known) and steps the water system is taking to reduce the lead levels in homes/buildings.

**(a)(1)(vi):** Revises the mandatory contact information to be included in public education materials that was previously specified in paragraphs (a)(1)(iv)(D) and (a)(2)(iv)(D).

**(a)(2)(i) & (ii):** Specifies additional language requirements for CWSs that include: how consumers can get their water tested, lead in plumbing components, and the difference between low-lead and lead-free materials. Note that under the previous LCR, §141.85(a)(2) contained the mandatory NTNCWS public education language.

**(b):** Deletes the mandatory language requirements for broadcast materials and replaces this language with revised public education delivery requirements that were previously specified in §141.85(c).

**(b)(1):** Requires the public education materials of systems that serve a large proportion of non-English speaking consumers, as determined by the State, to include information in the appropriate language(s) regarding the importance of the notice, or where they may obtain a translated copy of the public education materials or request assistance. Previously, systems were required to provide public education materials in other languages in those communities where a significant proportion spoke a language other than English.

**(b)(2):** Clarifies when public education materials must be delivered for CWSs that exceed the lead action level and are not already repeating public education tasks. These systems must deliver public education materials within 60 days after *the end of the monitoring period in which* the exceedance occurred.

**(b)(2)(i):** Specifies that CWSs must deliver public education materials to all bill-paying customers.

**(b)(2)(ii)(A):** Expands delivery of public education materials to local public health agencies (including those outside of the CWS's service area). The materials must be accompanied by an informational notice that encourages the agencies to distribute these materials to their potentially affected customers or the CWS's users. The CWS also must contact these agencies in person or by phone to request a specific list of additional community-based organizations serving target populations, which may include organizations outside the service area of the water system. If a list is provided, the CWS must deliver public education materials to all organizations on the provided lists. Note: Previously, this paragraph contained the requirement for CWSs to provide newspaper notification. This requirement has been modified and moved to paragraph (b)(2)(v).

**(b)(2)(ii)(B):** Maintains the requirement for CWSs to contact customers who are most at risk by delivering materials to the following organizations within their service area: 1) public schools or school boards; 2) Women, Infants, and Children (WIC) and Head Start programs; 3) public and private hospitals and medical clinics; 4) pediatricians; 5) family planning clinics; and 6) local welfare agencies. The Short-Term Revisions also require CWSs to provide an informational notice that encourages these organizations to distribute these materials to all their potentially affected customers or CWS's users and to also send the public education materials and information notice to private schools or their school boards.

**(b)(2)(ii)(C):** Adds a requirement for CWSs to make a "good faith effort" to locate and to deliver materials to licensed childcare centers; public and private preschools; and obstetricians-gynecologists; and midwives within their service area. The CWS must also provide an informational notice that encourages distribution to all the organization's potentially affected customers or CWS's users. A "good faith effort" may include requesting a contact list of these organizations from the local public

health agencies. However, in this instance the CWS must also deliver materials to any of these organizations that are outside its service area.

**(b)(2)(iii):** Requires CWSs to provide mandatory language on or in its water bill that notifies consumers that high lead levels were found at some homes and how to obtain more information. This information must be provided at least quarterly for as long as the system continues to exceed the lead action level. The water system must contact the State to modify the message or delivery mechanism (e.g., request that this information be mailed separately).

**(b)(2)(iv):** Adds a new requirement for CWSs that serve a population of more than 100,000 people to post public education materials on a publicly accessible Web site.

**(b)(2)(v):** Requires CWSs to submit a press release to newspaper, television, and radio stations. Previously CWSs had to provide PSAs to radio and television stations in addition to press releases.

**(b)(2)(vi):** Adds a requirement for CWSs to implement at least three activities from any of the following nine categories: 1) PSAs; 2) paid advertisements; 3) public area informational displays; 4) e-mails to customers; 5) public meetings; 6) household deliveries; 7) targeted individual customer contact; 8) direct material distribution to all multi-family homes and institutions; and 9) other methods approved by the State. The educational content and selection of these activities must be determined in consultation with the State.

**(b)(2)(vii):** For the purposes of delivering public education materials, defines the end of the monitoring period for CWSs that exceeded the lead action level during reduced lead and copper tap monitoring to be September 30 of the calendar year in which the sampling occurred, or, if the State has established an alternate monitoring period, the last day of that period.

**(b)(3):** Requires CWSs to repeat the requirements in paragraphs (b)(3)(i) through (iv) for as long as the system continues to exceed the lead action level.

**(b)(3)(i):** Requires CWSs to repeat the tasks in paragraphs (b)(2)(i), (ii) and (vi) every 12 months.

**(b)(3)(ii):** Requires CWSs to repeat the tasks in paragraph (b)(2)(iii) with each billing cycle.

**(b)(3)(iii):** Requires CWSs that serve a population of more than 100,000 to post and retain material on a publicly-accessible Web site as required in paragraph (b)(2)(iv).

**(b)(3)(iv):** Requires CWSs to repeat the task in paragraph (b)(2)(v) twice every 12 months on a schedule agreed upon with the State.



Paragraph (b)(3)(iv) also provides an allowance for States to extend the activities in paragraph (b)(2) beyond the 60-day requirement if the extension is approved in writing by the State in advance of the 60-day deadline. *Note: This extension is only appropriate if the system has initiated public education activities prior to the end of the 60-day deadline.*

**(b)(4):** Clarifies when public education materials must be delivered for NTNCWSs that exceed the lead action level and are not already repeating public education tasks. Specifically, NTNCWSs must


deliver public education materials within 60 days *after the end of the monitoring period in which the exceedance occurred.*

**(b)(4)(i):** Moves the requirements for NTNCWSs to post informational posters on lead in drinking water from §141.85(c)(4)(i). *Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*


**(b)(4)(ii):** Moves the requirements for NTNCWSs to distribute informational pamphlets or brochures on lead in drinking water to each person they serve and/or to use email if allowed by the State §141.85(c)(4)(ii). *Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*


**(b)(4)(iii):** For the purposes of public education delivery, defines the end of the monitoring period for NTNCWSs on reduced lead and copper tap monitoring as September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.


**(b)(5):** Requires NTNCWSs to repeat the task in paragraph (b)(4) at least once during each calendar year in which they exceed the lead action level.


 Paragraph (b)(5) also provides an allowance for States to extend the activities in paragraph (b)(4) beyond the 60-day requirement if the extension is approved in writing by the State in advance of the 60-day deadline. *Note: This extension is only appropriate if the system has initiated public education activities prior to the end of the 60-day deadline.*


**(b)(6):** Moves the specifications for when a PWS can discontinue or recommence the delivery of public education materials from §141.85(c)(5). *Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*

 **(b)(7):** Allows a CWS to apply to the State (unless the State has waived this requirement) to exclude the text in paragraph (a)(2) and use the delivery requirements specified for a NTNCWS if its population is unable to make improvements to plumbing or install point-of-use devices; and it does not separately charge for water consumption. *Note: A similar provision was allowed under the LCRMR.*

 **(b)(8):** Allows a CWS that serves 3,300 or fewer people to limit its public education program to the requirements in paragraphs (b)(8)(i) through (iii).

 **(b)(8)(i):** These CWSs must implement at least one activity from the list of nine categories in paragraph (b)(2)(vi) (versus the requirement of three for larger CWSs).

 **(b)(8)(ii):** These CWSs may limit the distribution of public education materials required under paragraph (b)(2)(ii) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

 **(b)(8)(iii):** Allows States to waive the requirement in paragraph (b)(2)(v) for these CWSs to provide press releases if they distribute notices to every household they serve.



**(c):** Moves the “Supplemental monitoring and notification of results” provision from §141.85(d).

*Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*

**(d):** Contains the introductory text to the lead consumer notice requirements.

**(d)(1):** Adds a new requirement for all PWSs (regardless of whether they exceed the lead action level) to provide individual lead tap results to people who receive water from sites that were sampled (i.e., lead consumer notice).

**(d)(2):** Requires the lead consumer notice to be delivered no later than 30 days after the water system learns of the tap monitoring results.

**(d)(3):** Specifies that the lead consumer notice must include: the lead tap water monitoring results, an explanation of the health effects of lead, steps consumers can take to reduce exposure to lead in drinking water, water utility contact information, the MCLG and the action level for lead, and the definitions for these two terms from the Consumer Confidence Report (CCR) Rule.

**(d)(4):** Requires the lead consumer notice to be delivered by mail or by another State-approved method (e.g., posting by NTNCWSs) to people served by the tested tap, including consumers who do not receive water bills.

### **Section 141.86 Monitoring Requirements for Lead and Copper in Tap Water**

**(c):** Clarifies monitoring requirements for PWSs with fewer than five drinking water taps that can be used for human consumption. These systems must collect at least one sample from each tap and collect additional samples from those taps on different days during the monitoring period.

✪ Alternatively, §141.86(c) allows the State to provide written approval for these systems to collect fewer than five samples if all taps that can be used for human consumption are sampled.

✪ **(d)(4)(i):** Adds language allowing systems that collect fewer than five samples (*as allowed under §141.86(c)*) and meet the lead and copper action level for two consecutive six-month monitoring periods to monitor annually. *[Note: If the State adopts this provision, it should also adopt the corresponding changes to §141.86(c).]*

Paragraph (d)(4)(i) also specifies that reduced monitoring will begin during the calendar year immediately following the second consecutive six-month monitoring period in which the system is at or below both action levels. *[Note: This provision in §141.86(d)(4)(i) **must** be adopted.]*

**(d)(4)(ii):** No longer allows systems that are required to collect WQPs to qualify for reduced annual lead and copper tap monitoring based on meeting their State-approved WQP ranges and values (i.e., optimal WQPs or OWQPs). Instead, systems must meet both the *lead action level* and their OWQPs during two, consecutive six-month monitoring periods. Also specifies that reduced monitoring will begin during the calendar year immediately following the end of the second consecutive six-month monitoring period, in which the system qualifies for reduced monitoring.

F.Y.I.

*PWSs that exceed the copper action level, but do not exceed the lead action level and are in compliance with their OWQPs can qualify for or remain on reduced lead and copper tap monitoring.*

**(d)(4)(iii):** Specifies that systems that are required to collect WQPs must meet both the *lead action level* and their OWQP ranges and values during three consecutive years of monitoring to qualify for reduced lead and copper triennial monitoring. Also clarifies that systems must collect their triennial samples no later than every third calendar year. *[Note: Although the Short-Term Revisions do not include specific language allowing systems that monitor triennially to collect fewer than five samples but at least one sample per tap that can be used for human consumption, EPA interprets the rules to allow this.]*


**(d)(4)(iv)(A):** Clarifies when monitoring must begin for a system that is on a State-specified alternate reduced monitoring period for lead and copper (i.e., system collects samples in four-month period other than June - September). The monitoring must begin during the State-specified period: in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring; and during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.

F.Y.I.

*If your State regulations do not allow for monitoring waivers, you are not required to adopt the revisions in §141.86(g)(4)(i) & (iii).*

**(d)(4)(vi)(B):** Requires system on reduced monitoring to return to standard monitoring if it fails to meet the lead action level during any four-month monitoring period or OWQP requirements for more than nine days in any six-month period. Also specifies that standard tap water sampling must begin no later than the six-month period beginning January 1 of the calendar year following the lead action level exceedance or WQP excursion.

**(d)(4)(vi)(B)(I):** Specifies the time period for a water system that qualifies to resume annual monitoring (i.e., meet both action levels and OWQPs for two consecutive six-month monitoring periods, and receive written State approval). The sampling must begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

 **(d)(4)(vii):** Limits the notification of a treatment change by water systems that are on reduced lead and copper tap monitoring to “upcoming long-term treatment changes.” *Note: States are not required to adopt that portion of the new requirement that limits prior notification and approval to only treatment changes that are long-term in nature.*

Paragraph (d)(4)(vii) also adds a new requirement for the State to review and approve the addition of a new source or long-term change in treatment before the system can implement the addition or change. *Note: States must adopt the requirement for prior review and approval of the treatment change or source addition.*



**(g)(4)(i):** Specifies that systems on full lead and copper tap monitoring waivers are to collect samples no later than every ninth calendar year. *[Note: This clarification was not added to §141.86(g)(4)(ii), which allows systems on partial waivers to conduct reduced lead and copper tap monitoring every nine years for the waived contaminant. However, the addition of language to (g)(4)(i) defining “every nine years” to mean that these samples must be collected by the ninth calendar year is an interpretation which applies to the entire section.]*



**(g)(4)(iii):** Limits the notification of a treatment change by water systems that are on a full or partial tap monitoring waiver to “upcoming long-term treatment changes.” *Note: States are not required to adopt that portion of the new requirement that limits prior notification and approval to only treatment changes that are long-term in nature.*

Paragraph (g)(4)(iii) also adds a new requirement for the State to review and approve the addition of a new source or long-term change in treatment before the system can implement the addition or change. *Note: States must adopt the requirement for prior review and approval of the treatment change or source addition.*

### **Section 141.87 Monitoring Requirements for Water Quality Parameters**

**(d):** Clarifies when the first six-month WQP monitoring period begins after the State specifies OWQPs. For large systems or medium and small systems on standard lead and copper tap monitoring, the first six-month period begins on either January 1 or July 1, whichever comes first, after the State specifies the optimal values. For small and medium-size systems, that were on reduced lead and copper tap monitoring, the start of the first-six month WQP monitoring period is the same as the beginning of the lead and copper tap monitoring period (e.g., for system monitoring during June - September, 2009, the start of the six-month monitoring period is June 1, 2009).

**(e)(2)(i):** Specifies that annual reduced WQP monitoring for qualifying systems begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of six-month monitoring occurred (e.g., PWSs qualifies for annual monitoring during six-month period of January 1 - June 30, 2009, annual monitoring starts June 1, 2010). Also specifies that triennial reduced WQP monitoring must begin no later than three calendar years after the end of the monitoring period in which the system qualifies for triennial monitoring (e.g., PWS qualifies for triennial monitoring in 2009; triennial monitoring must be conducted no later than 2012).

**(e)(2)(ii):** Specifies that triennial WQP tap monitoring must be conducted at least every three calendar years.

### **Section 141.88 Monitoring Requirements for Lead and Copper in Source Water**

**(b):** Specifies that initial source water monitoring must be conducted no later than 180 days after *the end of the monitoring period during which* the lead or copper action level was exceeded. If the exceedance occurred during reduced monitoring, defines the end of the monitoring period to be September 30 of the calendar year in which the sampling occurs, or if the State has established an alternate monitoring period, the last day of that period.

**(d)(i):** Specifies that triennial source water samples must be collected every third calendar year.

**(d)(ii):** Specifies that the first annual source water monitoring period must begin during the year in which the State specifies maximum permissible source water levels or determine that no source water treatment is needed.

**(e)(1):** Specifies that systems using only ground water that qualify for nine-year source water monitoring must collect these samples no later than every ninth calendar year.

**(e)(2):** Specifies that systems using surface water (or a combination of surface water and ground water) that qualify for nine-year source water monitoring must collect these samples no later than every ninth calendar year.

### **Section 141.89 Analytical Methods**

**(a)(iii):** Provides the correct citation of §141.88(a)(1)(iv) for source water composite samples

**(a)(iv):** Provides the correct citation of §141.89(a)(1) for analytical specifications that must be met by laboratories.

### **Section 141.90 Reporting Requirements**

**(a)(1):** Retains the requirement for systems to report tap water monitoring for lead and copper and WQP information within the first 10 days following the end of each applicable monitoring period. Clarifies the meaning of the “end of the monitoring period” for those periods that are less than six months (e.g., reduced lead and copper tap monitoring period is four months). In these instances, the end of the monitoring period is the last date samples can be collected during that period.

**(a)(2):** Updates the public education citations in this paragraph to be §141.85(b)(7). *Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*

**(a)(3):** Specifies the timeframe for systems that are monitoring less frequently than semi-annually to submit written documentation that describes the addition of a new source or long-term change in water treatment. This documentation must be at a time specified by the State, or if no specific time is designated, then as early as possible prior to the addition of a new source or any long-term change in water. Previously, systems had to notify the State within 60 days after the addition of a new source or change in water treatment.

Requires States to review and approve the addition of a new source or long-term change in treatment before it is implemented by the water system. Previously, States had the discretion to require prior approval. Also includes examples of long-term treatment changes.

**(e)(1):** Specifies that within 12 months after *the end of a monitoring period in which* a system exceeds the lead action level, it must submit written documentation to the State of the material evaluation that identifies the initial number of lead service lines in the distribution system. Also clarifies that the initial number of lead service lines equals those lines in the distribution system when the system was triggered into lead service line replacement (i.e., the monitoring period in which the PWS exceeded the lead action level after installing corrosion control treatment and/or source water treatment, whichever is later).

**(e)(2):** Specifies that the system must submit documentation that it has met its replacement requirements no later than 12 months after *the end of a monitoring period in which* it exceeds the lead action level and every 12 months thereafter.

**(f)(1)&(i):** Updates the citations in these paragraphs to correspond to the newly renumbered public education delivery requirements in paragraph (b)(2). *Note: These revisions are not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*

**(f)(3):** Adds a new requirement for systems to mail a sample copy of the consumer notification of tap results and a certification that they met the distribution requirements to the State. This reporting requirement is due no later than three months following the end of the monitoring period.

### **Section 141.91 Recordkeeping Requirements**

The Short-Term Revisions do not modify the provisions in this section.

### **Section 141.154 Required Additional Health Information**

**(d)(1):** Adds language that amends the lead information to be reported in the CCR.

**(d)(2):** Adds language to allow a PWS to write its own educational statement in consultation with the State.

### **Section 142.14 Records Kept by States**

**(d)(8)(xi):** Updates the public education citations in this paragraph to correspond to the newly renumbered delivery requirements in §§141.85(b)(7)(i) and (ii). *Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.*

### **Section 142.15 Reports by States**

The Short-Term Revisions do not modify the provision in this section. However, EPA has added a new violation code to facilitate tracking of water system compliance with the new lead consumer notification requirements in §§141.80(g), 141.85(d), and 141.90(f)(3). Refer to Section III and Appendix E of this manual for more detail regarding this reporting requirement.

### **Section 142.16 Special Primacy Requirements**

The Short-Term Revisions do not modify the provisions in this section.



*You are not required to adopt the starred provisions. However, some States may not be able to implement these changes until they update their regulations.*



# SECTION V: PRIMACY REVISION APPLICATIONS

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## A. State Primacy Program Revision

40 CFR Part 142 sets out requirements for States to obtain or retain primary enforcement responsibility (primacy) for the Public Water System Supervision (PWSS) Program as authorized by SDWA Section 1413. The 1996 SDWA Amendments update the process for States to obtain or retain primacy. On April 28, 1998, EPA promulgated the Primacy Rule to reflect these statutory changes (63 FR 23361).

Pursuant to 40 CFR 142.12, Revision of State Programs, complete and final requests for approval of primacy program revisions to adopt new or revised EPA regulations must be submitted to the EPA Administrator no later than 2 years after promulgation of the new or revised federal regulations (see Exhibit V-1). For the Short-Term Revisions, EPA is allowing 26 months for this submission (i.e., 2 years after the December 10, 2007 effective date of the rule). Until those applications are approved, EPA regions have responsibility for directly implementing the LCR Short-Term Revisions. The State and EPA can agree to implement the Rule together during this period. However, if a State is eligible for interim primacy, it will have full implementation and enforcement authority. States that have primacy for all existing NPDWRs are considered to have interim primacy for any new or revised regulation. Interim primacy for the Short-Term Revisions would begin on the date the final and complete primacy program revision application is submitted or the effective date of the new State regulation (whichever is later), and ends when EPA makes a final determination.

A State may be granted an extension of time, up to 2 years, to submit its application package. During any extension period, an agreement outlining the State's and EPA's responsibilities is required.

The provisions of the Short-Term Revisions fall into two general categories:

1. Provisions that States must adopt to retain primacy; and
2. Provisions that are not more stringent, but allow flexibility and improvements in implementation. States are not required to adopt these changes to maintain primacy. Some States may not be able to implement these changes until they update their own regulations.

**Provisions That Must Be Adopted** — These provisions became effective on December 10, 2007 and States must incorporate them into their drinking water regulations. Because the effective date for these provisions is well in advance of the deadline for State adoption of these revised requirements, EPA will take steps to enter into implementation agreements with States to ensure that the new requirements are implemented.

**Provisions Designed to Improve Implementation** — These provisions are effective on December 10, 2007 at the federal level. These provisions were identified in Section IV and are also marked with the symbol 🌟 in the Primacy Revision Crosswalk (see Appendix A). State regulations with more stringent requirements remain in effect in most States until the States adopt their own regulations in response to the Short-Term Revisions. EPA anticipates that States will work with their water systems to ensure that the water systems understand which requirements will be enforced in their State.

## Exhibit V-I. State Rule Implementation and Revision Timetable for the Lead and Copper Rule Short-Term Revisions

EPA/State Action	Time Frame
Rule published by EPA	October 10, 2007
Effective Date <sup>1</sup>	December 10, 2007
State and region establish a process and agree upon a schedule for application review and approval (optional)	December 10, 2007 (recommended)
Compliance Date <sup>2</sup>	April 7, 2008
State, at its option, submits <i>draft</i> primacy program revision package including: Preliminary Approval Request Draft State Regulations and/or Statutes Regulation Crosswalk	April 10, 2008 (recommended)
EPA regional office (and Headquarters, if necessary) review draft	Completed within 90 days of State submittal of Draft (recommended)
State submits final primacy program revision package including: Adopted State Regulations Regulation Crosswalk §142.10 Primacy Update Checklist	December 10, 2009 <sup>3</sup>
States with approved extensions submit complete and final primacy program revision package	December 10, 2011 <sup>4</sup>
EPA final review and determination: Regional review (program and Office of Regional Counsel (ORC)) Headquarters concurrence and waivers (OGWDW) Public Notice Opportunity for hearing EPA's Determination	Completed within 90 days of State submittal of Final package (45 days region) (45 days headquarters) <sup>5</sup>

<sup>1</sup> The effective date is when the Short-Term Revisions become law and amend the previous version of the LCR.

<sup>2</sup> The compliance date is when the Primacy Agency will begin implementing (and systems must begin complying with) the requirements of the Short-Term Revisions. The earliest compliance date is April 7, 2008 and will apply to those systems where EPA is the Primacy Agency or in States that adopt the Rule by reference automatically or incorporate based on the Federal publication date.

<sup>3</sup> EPA suggests submitting a Primacy application by September 10, 2009, to ensure timely approval. The regulations provide until December 10, 2009, for this submittal.

<sup>4</sup> EPA suggests submitting a Primacy application by September 10, 2011 for States with approved extensions to ensure timely approval. The regulations provide until December 10, 2011, for this submittal.

<sup>5</sup> EPA Headquarters will review at least one State application per region.

## A.1 The Revision Process

EPA recommends a two-step process for approval of State primacy program revisions. The steps consist of submission of a draft request (optional) and submission of a complete and final request for program approval. Exhibit V-2 diagrams these processes and their timing.

**Draft Request** — The State may submit a draft request for EPA review and tentative determination. The request should contain drafts of all required primacy application materials (with the exception of a draft Attorney General’s Statement). A draft request should be submitted as soon as practicable; EPA recommends submitting it within 6 months of rule promulgation. EPA will make a tentative determination as to whether the State program meets the applicable requirements. EPA intends to make a tentative determination within 90 days of submission.

**Complete and Final Request** — This submission must be in accordance with §142.12(c)(1)(i). EPA has waived the requirement for the Attorney General’s Statement of Enforceability. The State should also include its response to any comments or program deficiencies identified in the tentative determination (if applicable). Submission of only a final request may make it more difficult for States to address any necessary changes within the allowable time for State rule adoption.

EPA recommends that States submit their complete and final revision package within 23 months of rule promulgation (by September 10, 2009). This will ensure that States will have interim primacy as soon as possible and will prevent backlogs of revision applications to adopt future federal requirements.

The State and EPA region should agree to a plan and timetable for submitting the State primacy program revision application as soon as possible after rule promulgation—ideally within 2 months after promulgation.

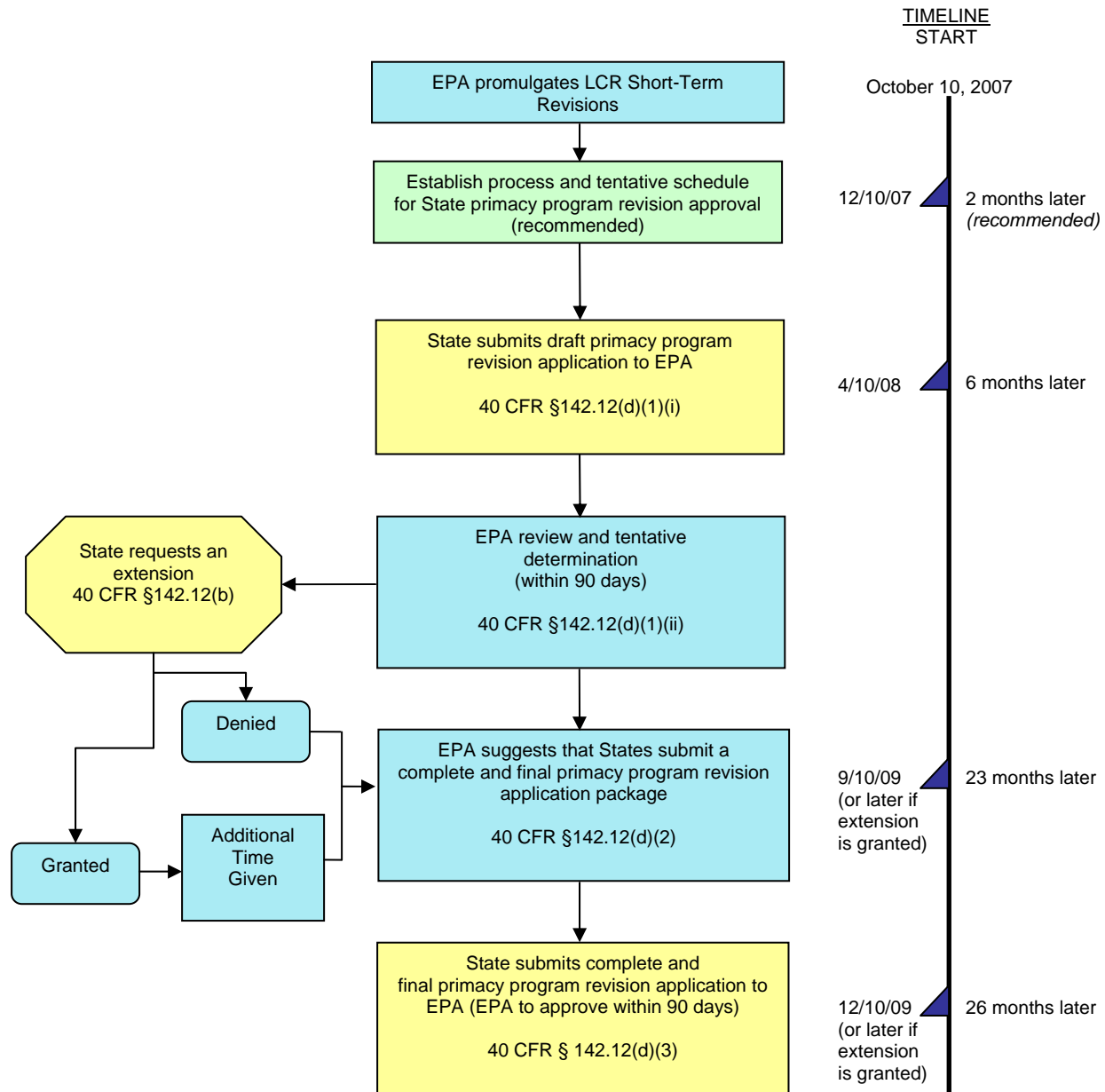
**Revisions Extension** — A State may be granted an extension of time, up to 2 years, to submit its application package. This process is discussed in more detail in section V-B.

## A.2 The Final Review Process

Once a State application is complete and final, EPA has a regulatory (and statutory) deadline of 90 days to review and approve or disapprove the revised program. OGWDW will conduct a detailed review of the first State package from each region. The regional office should submit its comments with the State’s package within 45 days for review by Headquarters. OGWDW waives concurrence on all other State programs in that region, although EPA HQ retains the option to review additional State programs, as appropriate. The Office of General Counsel (OGC) has delegated its review and approval to the Regional Counsel (RC).

To meet the 90-day deadline for packages undergoing Headquarters review, the review period is equally split by giving both the EPA regions and Headquarters 45 days to conduct their respective reviews. For the first package in each region, EPA regional offices should forward copies of the primacy program revision applications and their evaluations to the Drinking Water Protection Division Director in OGWDW no later than 45 days after State submittal. The Drinking Water Protection Division Director will take the lead on the Headquarters review process.

## Exhibit V-2. Recommended Review Process for State Request for Approval of Primacy Program Revisions





## **B. State Primacy Program Revision Extensions**

### **B.1 The Extension Process**

Under §142.12(b), States may request that the 2-year deadline for submitting the complete and final packages for EPA approval of primacy program revisions be extended for up to 2 additional years in certain circumstances. The extension request must be submitted to EPA within 2 years of the date that EPA published the regulation. The Regional Administrator has been delegated authority to approve extension applications. Concurrence by Headquarters on extensions is not required.

Therefore, the State must either adopt regulations pertaining to the Short-Term Revisions and submit a complete and final primacy program revision application or request an extension of up to 2 years by December 10, 2009.

### **B.2 Extension Request Criteria**

For an extension to be granted under §142.12(b), the State must demonstrate that it is requesting the extension because it cannot meet the original deadline for reasons beyond its control and despite a good faith effort to do so. A critical part of the extension application is the State's proposed schedule for submission of its complete and final request for approval of a revised primacy program. The application must also demonstrate at least one of the following:

- (i) The State currently lacks the legislative or regulatory authority to enforce the new or revised requirements;
- (ii) The State currently lacks adequate program capability to implement the new or revised requirements; or,
- (iii) The State is requesting the extension to group two or more primacy program revisions in a single legislative or regulatory action.

In addition, the State must be implementing the EPA requirements to be adopted in its primacy program revision within the scope of its current authority and capabilities.

### **B.3 Conditions of the Extension**

Until the State Primacy Revision Application has been submitted, the State and EPA regional office will share responsibility for implementing the primary program elements as indicated in the extension agreement. The State and the EPA regional office should discuss these elements and address terms of responsibility in the agreement.

These conditions will be determined during the extension approval process and are decided on a case-by-case basis. The conditions must be included in an extension agreement between the State and the EPA regional office.

Conditions of an extension agreement may include:

- Informing PWSs of the new EPA (and upcoming State) requirements and the fact that the region will be overseeing implementation of the requirements until it approves the State primacy program revisions or until the State submits a complete and final revision package if the State qualifies for interim primacy.
- Collecting, storing, and managing laboratory results, public notices, and other compliance and operation data required by the EPA regulations.
- Assisting the region in the development of the technical aspects of enforcement actions and conducting informal follow-up on violations (telephone calls, letters, etc.).
- Providing technical assistance to PWSs.
- For States whose request for an extension is based on a lack of program capability adequate to implement the new requirements, taking steps agreed to by the region and the State to remedy the deficiency during the extension period.
- Providing the region with all the information required under §142.15 for State reporting.

Exhibit V-3 provides a checklist the EPA region can use to review State extensions or to create an extension agreement. The bolded blue text in brackets should be replaced with State-specific information.

Until the State has primacy, EPA is the primacy enforcement authority. However, historically States have played a role in implementation for various reasons - most importantly, States have the local knowledge and expertise and have established relationships with their systems.

The State and EPA should be viewed as partners in this effort, working toward two very specific public health-related goals. The first goal is to achieve a high level of compliance with the regulation. The second goal is to facilitate efficient co-regulation during the transition period before the State has primacy, including interim primacy, for the Rule. In order to accomplish these goals, education, training, and technical assistance will need to be provided to water suppliers on their responsibilities under the LCR Short-Term Revisions.

## Exhibit V-3. Example Extension Request Checklist

[Date]

[Regional Administrator]

Regional Administrator

U.S. EPA Region [Region]

[Street Address]

[City, State, Zip]

RE: Request/Approval for an Extension Agreement

Dear [Regional Administrator]:

The State of [State] is requesting an extension to the date that the final primacy program revisions are due to EPA for the Lead and Copper Rule (LCR) Short-Term Revisions until [insert date – no later than December 10, 2011], as allowed by 40 CFR 142.12 and would appreciate your approval. This extension is being requested because the State of [State]:

- ☐ Is planning to group two or more primacy program revisions into a single legislative or regulatory action.
- ☐ Currently lacks the legislative or regulatory authority to enforce the new or revised requirements.
- ☐ Currently lacks adequate program capability to implement the new or revised requirements.

[State Department/Agency] will be working with EPA to implement the Short-Term Revisions within the scope of its current authority and capability, as outlined in the six areas identified in §142.12(b)(3)(i-vi):

i) Inform PWSs of the new EPA (and upcoming State) requirements and that EPA will oversee implementation of the requirements until EPA approves the State revision.

State	EPA	
_____	_____	Provide copies of regulation and guidance to other State agencies, public water systems (PWSs), technical assistance providers, associations, or other interested parties.
_____	_____	Educate and coordinate with State staff, PWSs, the public, and other water associations about the requirements of this regulation.
_____	_____	Notify affected systems of their requirements under the Short-Term Revisions.
_____	_____	Other:

ii) Collect, store and manage laboratory results, public notices, and other compliance and operation data required by the EPA regulations.

State	EPA	
_____	_____	Devise a tracking system for PWS reporting pursuant to the Short-Term Revisions.
_____	_____	Keep PWSs informed of SDWIS reporting requirements during development and implementation.
_____	_____	Report Short-Term Revisions violation and enforcement information to SDWIS as required.
_____	_____	Other:

iii) Assist EPA in the development of the technical aspects of the enforcement actions and conduct informal follow-up and violations (telephones calls, letters, etc.).

State	EPA	
_____	_____	Issue notices of violation (NOVs) for treatment technique, MCL, and monitoring/reporting violations of the Short-Term Revisions.
_____	_____	Provide immediate technical assistance to PWSs with treatment technique, MCL, and/or monitoring/reporting violations to try to bring them into compliance.
_____	_____	Refer all violations to EPA for enforcement if they have not been resolved within 60 days of the incident that triggered the violation. Provide information as requested to conduct and complete any enforcement action referred to EPA.
_____	_____	Other:

iv) Provide technical assistance to PWSs.

State	EPA	
_____	_____	Conduct training within the State for PWSs on Short-Term Revisions requirements.
_____	_____	Provide technical assistance through written and/or verbal correspondence with PWSs.
_____	_____	Provide on-site technical assistance to PWSs as requested and needed to ensure compliance with this regulation.
_____	_____	Coordinate with other technical assistance providers and organizations to provide accurate information and aid in a timely manner.
_____	_____	Other:

v) Provide EPA with all information prescribed by the State Reporting Requirements in § 142.15.

State	EPA	
_____	_____	Report any violations incurred by PWSs for this regulation each quarter.
_____	_____	Report any enforcement actions taken against PWSs for this regulation each quarter.
_____	_____	Report any variances or exemptions granted for PWSs for this regulation each quarter.
_____	_____	Other:

vi) For States whose request for an extension is based on a current lack of program capability to implement the new or revised requirements, take the following steps to remedy the capability deficiency.

State	EPA	
_____	_____	Acquire additional resources to implement these regulations (list of specific steps being taken attached as <a href="#">[List A]</a> .
_____	_____	Provide quarterly updates describing the status of acquiring additional resources.
_____	_____	Other:

I affirm that the [\[State Department/Agency\]](#) will implement provisions of the Short-Term Revisions as outlined above.

_____	_____
<a href="#">[Director, State Primacy Agency, or Delegee]</a>	Date

\_\_\_\_\_

[\[Name of State Agency\]](#)

I approve your extension for the aforementioned regulation. I affirm that EPA Region [\[Region\]](#) will implement provisions of the Short-Term Revisions as outlined above.

_____	_____
Regional Administrator EPA Region <a href="#">[Region]</a>	Date

This Extension Agreement will take effect upon the date of the last signature.

## B.4 State Primacy Package

The Primacy Program Revision Application package should consist of the following sections:

- State Primacy Revision Checklist
- Text of the State's Regulation
- Primacy Revision Crosswalk

The Short-Term Revisions did not modify the State recordkeeping, reporting, or special primacy requirements in §§142.14, 142.15, or 142.16 respectively. Therefore, the primacy revision application package does not need to include a State Reporting and Recordkeeping Checklist or Special Primacy Requirements. In addition, EPA has waived the requirement for the Attorney General's Statement of Enforceability.

### B.4.1 The State Primacy Revision Checklist

This section is a checklist of general primacy requirements, as shown in Exhibit V-4. In completing this checklist, the State must identify the program elements that it has revised in response to new federal requirements. **If an element has been revised, the State should indicate a "Yes" answer in the "Revision to State Program" column and should submit appropriate documentation.** For elements that did not require revision, the State need only list the citation and date of adoption in the "Revision to State Program" column. During the application review process, EPA will insert findings and comments in the final column.

The 1996 SDWA Amendments include new provisions for PWS definition and administrative penalty authority. States must adopt provisions at least as stringent as these new provisions, now codified at §§142.2 and 142.10. Failure to revise these elements can affect primacy for the LCR Short-Term Revisions.

States may bundle the primacy program revision packages for multiple rules. If States choose to bundle requirements, the Attorney General's Statement, if required, should reference all of the rules included.

### B.4.2 Text of the State's Regulation

Each primacy application package should include the text of the State regulation.

### B.4.3 Primacy Revision Crosswalk

The Primacy Revision Crosswalk, in Appendix A, or a comparable document must be completed by States in order to identify State statutory or regulatory provisions that correspond to each federal requirement. If the State's provisions differ from federal requirements, the State should explain how its requirements are no less stringent.

### Exhibit V-4. State Primacy Revision Checklist

Required Program Elements		Revision to State Program	EPA Findings/Comments
§142.10	Primary Enforcement - Definition of Public Water System*		
§142.10(a)	Regulations No Less Stringent		
§142.10(b)(1)	Maintain Inventory		
§142.10(b)(2)	Sanitary Survey Program		
§142.10(b)(3)	Laboratory Certification Program		
§142.10(b)(4)	Laboratory Capability		
§142.10(b)(5)	Plan Review Program		
§142.10(b)(6)(i)	Authority to Apply Regulations		
§142.10(b)(6)(ii)	Authority to Sue in Courts of Competent Jurisdiction		
§142.10(b)(6)(iii)	Right of Entry		
§142.10(b)(6)(iv)	Authority to Require Records		
§142.10(b)(6)(v)	Authority to Require Public Notification		
§142.10(b)(6)(vi)	Authority to Assess Civil and Criminal Penalties		
§142.10(b)(6)(vii)	Authority to Require CWSs to Provide CCRs		
§142.10(c)	Maintenance of Records		
§142.10(d)	Variance/Exemption Conditions (if applicable) <sup>1</sup>		
§142.10(e)	Emergency Plans		
§142.10(f)	Administrative Penalty Authority <sup>2</sup>		

<sup>1</sup>New Regulations published in the August 14, 1998 *Federal Register*.

<sup>2</sup>New Requirement from the 1996 Amendments. Regulations published in the April 28, 1998 *Federal Register*.



*The Short-Term Revisions did not modify the State recordkeeping or reporting requirements in §§141.14, 142.15, or 141.16 respectively. However, States must continue to comply with existing requirements that pertain to the LCR.*

# **APPENDIX A**





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## **PRIMACY REVISION CROSSWALK**







## Appendix A: Primacy Revision Crosswalk for the Lead and Copper Rule Short Term Revisions


Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement?  <i>If yes, explain on separate sheet</i>
<i>States have the option of adopting those provisions preceded with the symbol</i> 			
<b>SUBPART I—CONTROL OF LEAD AND COPPER</b>			
<b>§141.80 GENERAL REQUIREMENTS</b>			
 Deletes effective dates of the LCR that no longer apply.	§141.80(a)(2)		
 The sample result with the highest concentration is the 90 <sup>th</sup> percentile level for those systems that collect fewer than 5 tap water samples, as allowed under §141.86(c).	§141.80(c)(3)(v)		
Systems must provide a consumer notice of lead tap water monitoring results to all individuals served by those tested taps.	§141.80(g)		
<b>§141.81 APPLICABILITY OF CORROSION CONTROL TREATMENT STEPS TO SMALL, MEDIUM-SIZE AND LARGE WATER SYSTEMS</b>			
 Limits the notification of a treatment change by water systems that are deemed to have optimized corrosion control to “upcoming long-term treatment changes.” These systems must also notify the State of source changes. <ul style="list-style-type: none"> <li>State must review and approve the addition of a new source or long-term change in treatment before the system can implement it.</li> </ul> <i>Note: States are not required to adopt that portion of the new requirement that limits prior notification and approval to only treatment changes that are long-term in nature. However, they must adopt the requirement for prior review and approval of the treatment change or source addition.</i>	§141.81(b)(3)(iii)		
Systems exceeding an action level must recommend optimal corrosion control treatment within six months after the end of the monitoring period during which it exceeds an action level.	§141.81(e)(1)		
The State must determine the need for a system to conduct a corrosion control study no later than 12 months after the end of the monitoring period during which the system exceeds an action level.	§141.81(e)(2)		
For medium-size systems that are not required to conduct corrosion control studies, the State must specify optimal corrosion control treatment within 18 months after the end of the monitoring period during which the system exceeds an action level.	§141.81(e)(2)(i)		



Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement?  <i>If yes, explain on separate sheet</i>
<i>States have the option of adopting those provisions preceded with the symbol</i> 			
For small systems that are not required to conduct corrosion control studies, the State will specify optimal corrosion control treatment within 24 months after the end of the monitoring period during which the system exceeds an action level.	§141.81(e)(2)(ii)		
<b>§141.82 DESCRIPTION OF CORROSION CONTROL TREATMENT REQUIREMENTS</b>			
There were no revisions to this section.			
<b>§141.83 SOURCE WATER TREATMENT REQUIREMENTS</b>			
Systems must complete initial lead and copper source water monitoring and make a treatment recommendation to the State no later than 180 days after the end of the monitoring period during which an action level was exceeded.	§141.83(a)		
<b>§141.84 LEAD SERVICE LINE REPLACEMENT</b>			
<ul style="list-style-type: none"> <li>▪ The first year of lead service line replacement begins on the first day following the end of the monitoring period in which the action was exceeded.</li> <li>▪ The end of the monitoring period for systems on reduced lead and copper tap monitoring is September 30 of the calendar year in which the sampling occurs, or the last day of that period for systems on an alternate lead and copper tap monitoring period.</li> </ul>	§141.84(b)(1)		
<ul style="list-style-type: none"> <li>▪ Water systems that resume a lead service line replacement program must update their lead service line inventory to include those sites that previously “tested out” of the replacement requirements.</li> <li>▪ Systems must 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 per year. If the system has completed a 15-year lead service line replacement program, the State will determine a schedule for replacing or retesting lines.</li> </ul>	§141.84(b)(2)		

Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement?  <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 			
Updates the paragraph to reference the newly added §141.84(b)(2). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§141.84(f)		
<b>§141.85 PUBLIC EDUCATION AND SUPPLEMENTAL MONITORING</b>			
<ul style="list-style-type: none"> <li>Water systems must provide a consumer notice of the lead tap water monitoring results to all individuals served by the sites from which samples were collected.</li> <li>Water systems that exceed the lead action level must sample the tap water of any customer who requests it in accordance with paragraph (c).</li> </ul>	§141.85 Introductory Text		
<ul style="list-style-type: none"> <li>CWSs and NTNCWSs must follow the same requirements regarding the content of written public education materials in paragraph (a)(1).</li> <li>Systems must include the mandatory language as written in paragraphs (a)(1)(i) (opening statement), (ii) (health effects of lead), and (vi) (contact information), and system-specific information for the text in brackets in these paragraphs.</li> <li>Non-mandatory language must be in plain language that can be understood by the general public and be consistent with the requirements in paragraphs (a)(1)(i) through (vi).</li> <li>Systems must submit written public education materials to the State prior to delivery and States may require approval of these materials prior to delivery.</li> </ul>	§141.85(a)(1)		
Replaces the “Introduction” with a mandatory opening statement that stresses the importance of reading the public education materials.	§141.85(a)(1)(i)		
Revises the mandatory health effects language to provide greater specificity on the health problems that can result from exposure to lead.	§141.85(a)(1)(ii)		
Replaces the mandatory “Lead in drinking water” language with suggested topics in paragraphs (A) – (C) that explain sources of lead in drinking water.	§141.85(a)(1)(iii)		
Explain what lead is.	§141.85(a)(1)(iii)(A)		
Explain possible sources of lead in drinking water and how lead enters it. Include information on home/building plumbing materials and service lines that may contain lead.	§141.85(a)(1)(iii)(B)		








Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement?  <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 			
Explain other important sources of lead in addition to drinking water.	§141.85(a)(1)(iii)(C)		
Replaces the mandatory “Steps you can take to reduce your exposure to lead in drinking water” language with suggested topics in paragraphs (A) – (E) that explain these steps.	§141.85(a)(1)(iv)		
Encourage flushing the tap.	§141.85(a)(1)(iv)(A)		
Explain concerns about using hot water (especially for preparing baby formula).	§141.85(a)(1)(iv)(B)		
Explain that boiling water does not reduce lead levels.	§141.85(a)(1)(iv)(C)		
Discuss other options to reduce exposure to lead in drinking water (e.g., alternative sources or treatment of water).	§141.85(a)(1)(iv)(D)		
Suggest having parents test children’s blood lead levels.	§141.85(a)(1)(iv)(E)		
Public education materials must explain the reason for elevated levels of lead in the system’s drinking water (if known) and steps the water system is taking to reduce the lead levels in homes/buildings.	§141.85(a)(1)(v)		
Revises the mandatory contact information to be included in public education materials that was previously specified in paragraphs (a)(1)(iv)(D) and (a)(2)(iv)(D).	§141.85(a)(1)(vi)		
Deletes mandatory NTNCWS public education language and specifies additional language requirements in paragraphs (i) and (ii) to be included in CWS public education materials.	§141.85(a)(2)		
Tell consumers how to get their water tested.	§141.85(a)(2)(i)		
Discuss lead in plumbing components and the difference between low-lead and lead-free materials.	§141.85(a)(2)(ii)		
Deletes mandatory language requirements for broadcast materials and replaces this language with revised public education delivery requirements that were previously specified in §141.85(c).	§141.85(b)		




Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 🌟			
Public education materials of CWSs and NTNCWSs that serve a large proportion of non-English speaking consumers, as determined by the State, must include information in the appropriate language(s) regarding the importance of the notice, or where they obtain a translated copy of the public education materials or request assistance.	§141.85(b)(1)		
CWSs that exceed the lead action level and are not already repeating public education tasks must deliver public education materials within 60 days after the end of the monitoring period in which the exceedance occurred.	§141.85(b)(2)		
CWSs must deliver public education materials to all bill-paying customers.	§141.85(b)(2)(i)		
Removes the requirement to provide newspaper notification from this section and adds the following requirements: <ul style="list-style-type: none"> <li>▪ CWSs must expand delivery to local public health agencies (including those outside of the CWS's service area).</li> <li>▪ CWSs must include the public education materials and an informational notice that encourages the agencies to distribute these materials to their potentially affected customers or the CWS's users.</li> <li>▪ CWSs must contact these agencies in person or by phone to request a specific list of additional community-based organizations serving target populations, which may include organizations outside the service area of the water system.</li> <li>▪ If a list is provided, CWSs must deliver public education materials to all organizations on this list.</li> </ul>	§141.85(b)(2)(ii)(A)		
<ul style="list-style-type: none"> <li>▪ CWSs must contact customers who most at risk by delivering materials to the following organizations within their service area: 1) public and private schools or school boards; 2) Women, Infants, and Children (WIC) and Head Start programs; 3) public and private hospitals and medical clinics; 4) pediatricians; 5) family planning clinics; and 6) local welfare agencies.</li> <li>▪ CWSs must also provide an informational notice that encourages distribution to all the organization's potentially affected customers or CWS's users.</li> </ul>	§141.85(b)(2)(ii)(B)		


Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<b><i>States have the option of adopting those provisions preceded with the symbol</i></b> 			
<ul style="list-style-type: none"> <li>▪ CWSs must make a “good faith effort” to locate and to deliver materials to licensed childcare centers; public and private preschools; and obstetricians-gynecologists; and midwives. A “good faith effort” may include requesting a contact list of these organizations from the local public health agencies.</li> <li>▪ CWSs must provide an informational notice that encourages distribution to all the organization’s potentially affected customers or CWS’s users.</li> </ul>	§141.85(b)(2)(ii)(C)		
CWSs must provide mandatory language on or in its water bill that notifies consumers that high lead levels were found at some homes and how to obtain more information. The information must be provided at least quarterly for as long as the system continues to exceed the lead action level. The water system must contact the State to modify the message or delivery mechanism.	§141.85(b)(2)(iii)		
CWSs that serve a population of more than 100,000 must post public education materials on a publicly accessible Web site.	§141.85(b)(2)(iv)		
Replaces requirement for CWSs to provide public service announcements (PSAs) to radio and television stations and replaces it with a requirement for CWSs to submit a press release to newspaper, television, and radio stations.	§141.85(b)(2)(v)		
Requires CWSs to implement at least 3 activities from the following 9 categories: 1) PSAs, 2) paid advertisements; 3) exhibit informational displays; 4) emails to customers; 5) public meetings; 6) household deliveries; 7) targeted individual customer contact; 8) direct material distribution to all multi-family homes and institutions; 9) other methods approved by the State. Requires CWS to consult with the State on the educational content and selection of these activities.	§141.85(b)(2)(vi)		
For the purposes of public education delivery, defines the end of the monitoring period for CWSs that exceeded the lead action level during reduced lead and copper tap monitoring as September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.	§141.85(b)(2)(vii)		




Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement?  <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 			
CWSs must repeat the requirements in paragraphs (b)(3)(i) through (iv) for as long as the system continues to exceed the lead action level.	§141.85(b)(3)		
CWSs must repeat the tasks in paragraphs (b)(2)(i), (ii) and (vi) every 12 months.	§141.85(b)(3)(i)		
CWSs must repeat the tasks in paragraph (b)(2)(iii) with each billing cycle.	§141.85(b)(3)(ii)		
CWSs that serve a population of more than 100,000 must post and retain material on a publicly accessible Web site as required in paragraph (b)(2)(iv).	§141.85(b)(3)(iii)		
<ul style="list-style-type: none"> <li>▪ CWSs must repeat the task in paragraph (b)(2)(v) twice every 12 months on a schedule agreed upon with the State.</li> </ul>  State can extend the activities in paragraph (b)(2) beyond the 60-day requirement if the extension is approved in writing by the State in advance of the 60-day deadline. <i>Note: This extension is only appropriate if the system has initiated public education activities prior to the end of the 60-day deadline.</i>	§141.85(b)(3)(iv)		
NTNCWSs that exceed the lead action level and are not already repeating public education tasks must deliver public education materials within 60 days after the end of the monitoring period in which the exceedance occurred.	§141.85(b)(4)		
Moves the requirements for NTNCWSs to post informational posters on lead in drinking water from §141.85(c)(4)(i). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§141.85(b)(4)(i)		
Moves the requirements for NTNCWSs to distribute informational pamphlets/brochures on lead in drinking water to each person they serve and/or to use email if allowed by the State §141.85(c)(4)(ii). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§141.85(b)(4)(ii)		
For the purposes of public education delivery, defines the end of the monitoring period for NTNCWSs on reduced lead and copper tap monitoring as September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.	§141.85(b)(4)(iii)		




Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol </b>			
<ul style="list-style-type: none"> <li>NTNCWSs must repeat the task in paragraph (b)(4) at least once during each calendar year in which it exceeds the lead action level.</li> <li> State may extend the activities in paragraph (b)(4) beyond the 60-day requirement if the extension is approved in writing by the State in advance of the 60-day deadline. <i>Note: This extension is only appropriate if the system has initiated public education activities prior to the end of the 60-day deadline.</i></li> </ul>	§141.85(b)(5)		
Moves the specifications for when a PWS can discontinue or recommence the delivery of public education materials from §141.85(c)(5). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§141.85(b)(6)		
 CWSs meeting specific criteria may apply to the State (unless the State has waived this requirement) to limit public education activities to include only the text in paragraph (a)(1) and the delivery requirements in paragraphs (b)(4) and (b)(5). These CWSs must serve a population that is unable to make plumbing improvements or install point-of-use devices; and do not charge separately for water consumption.	§141.85(b)(7)		
 CWSs that serves 3,300 or fewer people can limit their public education program to the requirements in paragraphs (b)(8)(i) through (iii).	§141.85(b)(8)		
 These CWSs must implement at least 1 activity from the 9 categories in paragraph (b)(2)(vi).	§141.85(b)(8)(i)		
 These CWSs may limit the distribution of public education materials required under paragraph (b)(2)(ii) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.	§141.85(b)(8)(ii)		
 States may waive the requirement in paragraph (b)(2)(v) for these CWSs to provide press releases if they distribute notices to every household they serve.	§141.85(b)(8)(iii)		
Moves the “Supplemental monitoring and notification of results” provision from §141.85(d). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§141.85(c)		


Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 			
Notification of results.	§141.85(d) Introductory text		
All PWSs must provide individual lead tap results to people who receive water from sites which were sampled.	§141.85(d)(1)		
The consumer notice must be delivered no later than 30 days after the water system learns of the tap monitoring results.	§141.85(d)(2)		
The consumer notice must include: the lead tap water monitoring results; an explanation of the health effects of lead; steps consumers can take to reduce exposure to lead in drinking water; water utility contact information; the maximum contaminant level goal and the action level for lead; the definitions for these two terms from the Consumer Confidence Report Rule.	§141.85(d)(3)		
The consumer notice must be delivered by mail or by another State-approved method (e.g., posting by NTNCWSs) to people served by the test tap, including consumers who do not receive water bills.	§141.85(d)(4)		
<b>§141.86 MONITORING REQUIREMENTS FOR LEAD AND COPPER IN TAP WATER</b>			
<ul style="list-style-type: none"> <li>PWSs with fewer than five drinking water taps that can be used for human consumption must collect at least one sample from each tap and collect additional samples from those taps on different days during the monitoring period.</li> </ul>  Alternatively, the State can provide written approval for these systems to collect fewer than five samples if all taps that can be used for human consumption are sampled.	§141.86(c)		
 Small or medium systems that collect fewer than five samples (as allowed under §141.86(c)) and meet the lead and copper action level for two consecutive six-month monitoring periods can monitor annually. The number of samples may not be reduced to less than one sample per available tap. <i>[Note: If the State adopts this provision, they should also adopt changed to §141.86(c).]</i> <ul style="list-style-type: none"> <li>Reduced monitoring will begin during the calendar year immediately following the second consecutive six-month monitoring period in which the system is at or below both action levels.</li> </ul>	§141.86(d)(4)(i)		

Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 			
<ul style="list-style-type: none"> <li>Systems that meet the lead action level and State-approved water quality parameter (WQP) ranges and values (i.e., optimal WQPs or OWQPs) during two, consecutive six-month monitoring periods qualify for reduced annual lead and copper tap monitoring if approved in writing by the State.</li> <li>Reduced monitoring will begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.</li> </ul>	§141.86(d)(4)(ii)		
<ul style="list-style-type: none"> <li>Systems that meet the lead action level and their OWQP ranges and values during three-consecutive years of annual monitoring qualify for reduced lead and copper tap triennial monitoring if approved in writing by the State.</li> <li>Triennial samples must be collected no later than every third calendar year.</li> </ul> <p><i>[Note: Although the Revisions do not include specific language allowing systems that monitor triennially to collect fewer than five samples but at least one sample per tap that can be used for human consumption, EPA interprets the rules to allow this.]</i></p>	§141.86(d)(4)(iii)		
For systems on a State-specified alternate reduced monitoring period, the monitoring must begin during the State-specified period: in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring; and during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.	§141.86(d)(4)(iv)(A)		
<ul style="list-style-type: none"> <li>Systems on reduced monitoring must return to standard monitoring if they fails to meet the lead action level during any four-month monitoring period or their OWQP requirements for more than nine days in any six-month period.</li> <li>Standard tap water sampling must start begin no later than the six-month period beginning January 1 of the calendar year following the lead action level exceedance or WQP excursion.</li> </ul>	§141.86(d)(4)(vi)(B)		
Water systems that qualify to resume annual monitoring by meeting the criteria in paragraph (b)(4)(ii) must begin monitoring during the calendar year immediately following the end of the second consecutive six-month monitoring period.	§141.86(d)(4)(vi)(B)(1)		

Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol </b>			
 Limits the notification of a treatment change by water systems that are on reduced lead and copper tap monitoring to “upcoming long-term treatment changes.” These systems must also notify the State of source changes. <ul style="list-style-type: none"> <li>State must review and approve the addition of a new source or long-term change in treatment before the system can implement it.</li> </ul> <p><i>Note: States are not required to adopt that portion of the new requirement that limits prior notification and approval to only treatment changes that are long-term in nature. However, they must adopt the requirement for prior review and approval of the treatment change or source addition.</i></p>	§141.86(d)(4)(vii)		
<p>Systems on a full lead and copper tap monitoring waivers must collect samples no later than every ninth calendar year.</p> <p><i>Note: This paragraph only applies to States that adopted the monitoring waiver provisions in §141.86(g) into their regulations. In addition, this clarification was not added to §141.86(g)(4)(ii), which allows systems on partial waivers to conduct reduced lead and copper tap monitoring every nine years for the waived contaminant. However, the addition of language to (g)(4)(i) defining “every nine years” to mean that these samples must be collected by the ninth calendar year is an interpretation which applies to the entire section.</i></p>	§141.86(g)(4)(i)		
 Limits the notification of a treatment change by water systems that are on a full or partial tap monitoring waiver to “upcoming long-term treatment changes.” These systems must also notify the State of source changes. <ul style="list-style-type: none"> <li>State must review and approve the addition of a new source or long-term change in treatment before the system can implement it.</li> </ul> <p><i>Note: This paragraph only applies to States that adopted the monitoring waiver provisions in §141.86(g) into their regulations. In addition, States are not required to adopt that portion of the new requirement that limits prior notification and approval to only treatment changes that are long-term in nature. However, they must adopt the requirement for prior review and approval of the treatment change or source addition.</i></p>	§141.86(g)(4)(iii)		

Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement?  <i>If yes, explain on separate sheet</i>
<i>States have the option of adopting those provisions preceded with the symbol</i> 			
<b>§141.87 MONITORING REQUIREMENTS FOR WATER QUALITY PARAMETERS</b>			
Clarifies when the first six-month compliance period begins after the State specifies OWQPs. For large systems (i.e., those serving more than 50,000 people), the first six-month period begins on either January 1 or July 1, whichever comes first, after the State specifies the optimal values. For small and medium-size systems that were on reduced lead and copper tap monitoring, the start of the first six-month monitoring period for WQPs coincides with the start of the applicable lead and copper tap monitoring period.	§141.87(d)		
<ul style="list-style-type: none"> <li>Annual reduced WQP monitoring for qualifying systems begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of six-month monitoring occurred.</li> <li>Triennial reduced WQP monitoring for qualifying systems begins no later than the third calendar year following the end of the monitoring period in which the third consecutive year of monitoring occurs.</li> </ul>	§141.87(e)(2)(i)		
Triennial WQP tap monitoring must be completed no later than every third calendar year.	§141.87(e)(2)(ii)		
<b>§141.88 MONITORING REQUIREMENTS FOR LEAD AND COPPER IN SOURCE WATER</b>			
<ul style="list-style-type: none"> <li>The initial lead and copper source water monitoring must be conducted no later than six months after the end of the monitoring period during which the lead or copper action level was exceeded.</li> <li>If the exceedance occurred during reduced monitoring, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or if the State has established an alternate monitoring period, the last day of that period.</li> </ul>	§141.88(b)		

Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 🌟			
Systems using ground water sources only must collect source water lead and copper samples once during the three-year compliance period (as that term is defined in §141.2) in effect when State specifies maximum permissible levels (MPLs) for lead and copper in source water or determines that no source water treatment is needed. Triennial source water samples must be collected every third calendar year.	§141.88(d)(1)(i)		
For systems using surface water or a combination of surface and ground water, the first annual source water monitoring period must begin during the year in which the State specifies MPLs or determine that no source water treatment is needed.	§141.88(d)(1)(ii)		
Systems using only ground water that qualify for source monitoring on a nine-year compliance cycle (as that term is defined in §141.2) must collect their samples no later than every ninth calendar year.	§141.88(e)(1)		
Systems using surface water (or a combination of surface water and ground water) that qualify for source monitoring on a nine-year compliance cycle (as that term is defined in §141.2) must collect their samples no later than every ninth calendar year.	§141.88(e)(2)		
<b>§141.89 ANALYTICAL METHODS</b>			
Provides the correct citation of §141.88(a)(1)(iv) for source water composite samples.	§141.89(a)(1)(iii)		
Provides the correct citation of paragraph (a)(1) of this section for analytical specifications that must be met by laboratories.	§141.89(a)(1)(iv)		
<b>§141.90 REPORTING REQUIREMENTS</b>			
Retains the requirement for systems to report tap water monitoring for lead and copper and WQP information within the first 10 days following the end of each applicable monitoring period. Clarifies the meaning of the “end of the monitoring period” for monitoring periods that are less than six months to be the last date samples can be collected during that period.	§141.90(a)		
Updates the public education citation in this paragraph to be §141.85(b)(7). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§141.90(a)(2)		

Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement?  <i>If yes, explain on separate sheet</i>
<b>States have the option of adopting those provisions preceded with the symbol</b> 			
<ul style="list-style-type: none"> <li>Systems that are monitoring less frequently than semi-annually must submit written documentation that describes the addition of a new source or long-term change in water treatment at a time specified by the State, or if no specific time is designated, then as early as possible prior to the addition of a new source or any long-term change in water.</li> <li>States must review and approve the addition of a new source or long-term change in treatment before it is implemented by the water system.</li> <li>Lists examples of long-term treatment changes: <ul style="list-style-type: none"> <li>- switching secondary disinfectants;</li> <li>- switching coagulants (e.g., alum to ferric chloride), and switching corrosion inhibitor products (e.g., orthophosphate to blended phosphate); and</li> <li>- changing the dose of existing chemicals if the system is planning long-term changes to its finished water pH or residual inhibitor concentration.</li> </ul> </li> </ul>	§141.90(a)(3)		
Within 12 months after the end of a monitoring period in which a system exceeds the lead action level, it must submit written documentation to the State of the material evaluation that identifies the initial number of lead service lines in the distribution system at the time the action level is exceeded. Systems must also submit their schedule for annually replacing at least 7 percent of lead service lines.	§141.90(e)(1)		
Systems must submit documentation in writing that they have met their replacement requirements no later than 12 months after the end of a monitoring period in which it exceeds the lead action level and every 12 months thereafter.	§141.90(e)(2)		
Updates the citation in this paragraph to correspond to the newly renumbered public education delivery requirements in §141.85(b). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§141.90(f)(1)		
Updates the citation in this paragraph to correspond to the newly renumbered public education delivery requirements in §141.85(b). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§§141.90(f)(1)(i)		



Federal Requirement	Federal Citation	State Citation <i>(title, page number, section/paragraph)</i>	Different from federal requirement? <hr/> <i>If yes, explain on separate sheet</i>
<i>States have the option of adopting those provisions preceded with the symbol</i> 🌟			
Requires systems to mail a sample copy of the consumer notification of tap results and a certification that they met the distribution requirements to the State no later than 3 months following the end of the monitoring period.	§141.90(f)(3)		
<b>§141.91 RECORDKEEPING REQUIREMENTS</b>			
<b>There were no revisions to this section.</b>			
<b>§141.154 REQUIRED ADDITIONAL HEALTH INFORMATION</b>			
Amends the lead information to be reported in the consumer confidence report.	§141.154(d)(1)		
PWSs may write their own educational statement in consultation with the State.	§141.154(d)(2)		
<b>§142.14 RECORDS KEPT BY STATES</b>			
Updates the public education citations in this paragraph to be §§141.85(b)(7)(i) and (ii). <i>Note: This revision is not more stringent than the previous regulation but may be needed to ensure that the rule language is correctly ordered.</i>	§142.14(d)(8)(xi)		



# **APPENDIX B**

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## **2007 SHORT-TERM REVISIONS COMPARED TO THE LEAD AND COPPER RULE**



## Appendix B: 2007 Short-Term Revisions Compared to the Lead and Copper Rule

### PART 141 — NATIONAL PRIMARY DRINKING WATER REGULATIONS

#### Subpart I — Control of Lead and Copper

##### §141.80 General requirements.

(a) *Applicability and effective dates.* (1) The requirements of this subpart I constitute the national primary drinking water regulations for lead and copper. Unless otherwise indicated, each of the provisions of this subpart applies to community water systems and non-transient, non-community water systems (hereinafter referred to as “water systems” or “systems”).

(2) ~~The requirements set forth in §§141.86 to 141.91 shall take effect on July 7, 1991. The requirements set forth in §§141.80 to 141.85 shall take effect on December 7, 1992.~~ [Reserved]

(b) *Scope.* These regulations establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education. These requirements are triggered, in some cases, by lead and copper action levels measured in samples collected at consumers’ taps.

(c) *Lead and copper action levels.* (1) The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with §141.86 is greater than 0.015 mg/L (i.e., if the “90th percentile” lead level is greater than 0.015 mg/L).

(2) The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with §141.86 is greater than 1.3 mg/L (i.e., if the “90th percentile” copper level is greater than 1.3 mg/L).

(3) 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 paragraph (c)(3)(ii) is the 90th percentile contaminant level.

(iv) For water systems serving fewer than 100 people that collect 5 samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(v) For a public water system that has been allowed by the State to collect fewer than five samples in accordance with §141.86(c), the sample result with the highest concentration is considered the 90th percentile value.

(d) *Corrosion control treatment requirements.* (1) All water systems shall install and operate optimal corrosion control treatment as defined in §141.2.

(2) Any water system that complies with the applicable corrosion control treatment requirements specified by the State under §§141.81 and 141.82 shall be deemed in compliance with the treatment requirement contained in paragraph (d)(1) of this section.

(e) *Source water treatment requirements.* Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the State under §141.83.

(f) *Lead service line replacement requirements.* Any system exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in §141.84.

(g) *Public education requirements.* Pursuant to §141.85, all water systems must provide a consumer notice of lead tap water monitoring results to persons served at the sites (taps) that are tested. Any system exceeding the lead action level shall implement the public education requirements contained in §141.85.

(h) *Monitoring and analytical requirements.* Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this subpart shall be completed in compliance with §§141.86, 141.87, 141.88, and 141.89.

(i) *Reporting requirements.* Systems shall report to the State any information required by the treatment provisions of this subpart and §141.90.

(j) *Recordkeeping requirements.* Systems shall maintain records in accordance with §141.91.

(k) *Violation of national primary drinking water regulations.* Failure to comply with the applicable requirements of §§141.80-141.91, including requirements established by the State pursuant to these provisions, shall constitute a violation of the national primary drinking water regulations for lead and/or copper.

### **§141.81 Applicability of corrosion control treatment steps to small, medium-size and large water systems.**

(a) Systems shall complete the applicable corrosion control treatment requirements described in §141.82 by the deadlines established in this section.

(1) A large system (serving >50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (d) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(2) or (b)(3) of this section.

(2) A small system (serving ≤3300 persons) and a medium-size system (serving >3,300 and ≤50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (e) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(1), (b)(2), or (b)(3) of this section.

(b) A system is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in this section if the system satisfies one of the criteria: specified in paragraphs (b)(1) through (b)(3) of this section. Any such system deemed to have optimized corrosion control under this paragraph, and which has treatment in place, shall continue to operate and maintain optimal corrosion control treatment and meet any requirements that the State determines appropriate to ensure optimal corrosion control treatment is maintained.

(1) A small or medium-size water system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with §141.86.

(2) Any water system may be deemed by the State to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the State that it has conducted activities equivalent to the corrosion control steps applicable to such system under this section. If the State makes this determination, it shall provide the system with written notice explaining the basis for its decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with §141.82(f). Water systems deemed to have optimized corrosion control under this paragraph shall operate in compliance with the State-designated optimal water quality control parameters in accordance with §141.82(g) and continue to conduct lead and copper tap and water quality parameter sampling in accordance with §141.86(d)(3) and §141.87(d), respectively. A system shall provide the State with the following information in order to support a determination under this paragraph:

- (i) The results of all test samples collected for each of the water quality parameters in §141.82(c)(3).
- (ii) A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in §141.82(c)(1), the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment;
- (iii) A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps; and
- (iv) The results of tap water samples collected in accordance with §141.86 at least once every six months for one year after corrosion control has been installed.

(3) Any water system is deemed to have optimized corrosion control if it submits results of tap water monitoring conducted in accordance with §141.86 and source water monitoring conducted in accordance with §141.88 that demonstrates for two consecutive 6-month monitoring periods that the difference between the 90th percentile tap water lead level computed under §141.80(c)(3), and the highest source water lead concentration is less than the Practical Quantitation Level for lead specified in §141.89(a)(1)(ii).

(i) Those systems whose highest source water lead level is below the Method Detection Limit may also be deemed to have optimized corrosion control under this paragraph if the 90th percentile tap water lead level is less than or equal to the Practical Quantitation Level for lead for two consecutive 6-month monitoring periods.

(ii) Any water system deemed to have optimized corrosion control in accordance with this paragraph shall continue monitoring for lead and copper at the tap no less frequently than once every three calendar years using the reduced number of sites specified in §141.86(c) and collecting the samples at times and locations specified in §141.86(d)(4)(iv). Any such system that has not conducted a round of monitoring pursuant to §141.86(d) since September 30, 1997, shall complete a round of monitoring pursuant to this paragraph no later than September 30, 2000.

(iii) Any water system deemed to have optimized corrosion control pursuant to this paragraph shall notify the State in writing pursuant to §141.90(a)(3) of any **upcoming long-term** change in treatment or ~~the~~ addition of a new source **as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system.** The State may require any such system to conduct additional monitoring or to take other action the State deems appropriate to ensure that such systems maintain minimal levels of corrosion in the distribution system.

(iv) As of July 12, 2001, a system is not deemed to have optimized corrosion control under this paragraph, and shall implement corrosion control treatment pursuant to paragraph (b)(3)(v) of this section unless it meets the copper action level.

(v) Any system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under this paragraph shall implement corrosion control treatment in accordance with the deadlines in paragraph (e) of this section. Any such large system shall adhere to the schedule specified in that paragraph



for medium-size systems, with the time periods for completing each step being triggered by the date the system is no longer deemed to have optimized corrosion control under this paragraph.

(c) Any small or medium-size water system that is required to complete the corrosion control steps due to its exceedance of the lead or copper action level may cease completing the treatment steps whenever the system meets both action levels during each of two consecutive monitoring periods conducted pursuant to §141.86 and submits the results to the State. If any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system (or the State, as the case may be) shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety. The State may require a system to repeat treatment steps previously completed by the system where the State determines that this is necessary to implement properly the treatment requirements of this section. The State shall notify the system in writing of such a determination and explain the basis for its decision. The requirement for any small- or medium-size system to implement corrosion control treatment steps in accordance with paragraph (e) of this section (including systems deemed to have optimized corrosion control under paragraph (b)(1) of this section) is triggered whenever any small- or medium-size system exceeds the lead or copper action level.

(d) *Treatment steps and deadlines for large systems.* Except as provided in paragraph (b)(2) and (3) of this section, large systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§141.82, 141.86, and 141.87) by the indicated dates.

(1) *Step 1:* The system shall conduct initial monitoring (§141.86(d)(1) and §141.87(b)) during two consecutive six-month monitoring periods by January 1, 1993.

(2) *Step 2:* The system shall complete corrosion control studies (§141.82(c)) by July 1, 1994.

(3) *Step 3:* The State shall designate optimal corrosion control treatment (§141.82(d)) by January 1, 1995.

(4) *Step 4:* The system shall install optimal corrosion control treatment (§141.82(e)) by January 1, 1997.

(5) *Step 5:* The system shall complete follow-up sampling (§141.86(d)(2) and §141.87(c)) by January 1, 1998.

(6) *Step 6:* The State shall review installation of treatment and designate optimal water quality control parameters (§141.82(f)) by July 1, 1998.

(7) *Step 7:* The system shall operate in compliance with the State-specified optimal water quality control parameters (§141.82(g)) and continue to conduct tap sampling (§141.86(d)(3) and §141.87(d)).

(e) *Treatment Steps and deadlines for small and medium-size systems.* Except as provided in paragraph (b) of this section, small and medium-size systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§141.82, 141.86 and 141.87) by the indicated time periods.

(1) *Step 1:* The system shall conduct initial tap sampling (§141.86(d)(1) and §141.87(b)) until the system either exceeds the lead or copper action level or becomes eligible for reduced monitoring under §141.86(d)(4). A system exceeding the lead or copper action level shall recommend optimal corrosion control treatment (§141.82(a)) within six months after **the end of the monitoring period during which** it exceeds one of the action levels.

(2) *Step 2:* Within 12 months after **the end of the monitoring period during which** a system exceeds the lead or copper action level, the State may require the system to perform corrosion control studies (§141.82(b)). If the State does not require the system to perform such studies, the State shall specify optimal corrosion control treatment (§141.82(d)) within the following timeframes:

(i) For medium-size systems, within 18 months after **the end of the monitoring period during which** such system exceeds the lead or copper action level,

- (ii) For small systems, within 24 months after **the end of the monitoring period during which** such system exceeds the lead or copper action level.
- (3) *Step 3:* If the State requires a system to perform corrosion control studies under step 2, the system shall complete the studies (§141.82(c)) within 18 months after the State requires that such studies be conducted.
- (4) *Step 4:* If the system has performed corrosion control studies under step 2, the State shall designate optimal corrosion control treatment (§141.82(d)) within 6 months after completion of step 3.
- (5) *Step 5:* The system shall install optimal corrosion control treatment (§141.82(e)) within 24 months after the State designates such treatment.
- (6) *Step 6:* The system shall complete follow-up sampling (§141.86(d)(2) and §141.87(c)) within 36 months after the State designates optimal corrosion control treatment.
- (7) *Step 7:* The State shall review the system's installation of treatment and designate optimal water quality control parameters (§141.82(f)) within 6 months after completion of step 6.
- (8) *Step 8:* The system shall operate in compliance with the State-designated optimal water quality control parameters (§141.82(g)) and continue to conduct tap sampling (§141.86(d)(3) and §141.87(d)).

#### **§141.82 Description of corrosion control treatment requirements.**

Each system shall complete the corrosion control treatment requirements described below which are applicable to such system under §141.81.

- (a) *System recommendation regarding corrosion control treatment.* Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium-size water systems exceeding the lead or copper action level shall recommend installation of one or more of the corrosion control treatments listed in paragraph (c)(1) of this section which the system believes constitutes optimal corrosion control for that system. The State may require the system to conduct additional water quality parameter monitoring in accordance with §141.87(b) to assist the State in reviewing the system's recommendation.
- (b) *State decision to require studies of corrosion control treatment (applicable to small and medium-size systems).* The State may require any small or medium-size system that exceeds the lead or copper action level to perform corrosion control studies under paragraph (c) of this section to identify optimal corrosion control treatment for the system.
- (c) *Performance of corrosion control studies.* (1) Any public water system performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:
- (i) Alkalinity and pH adjustment;
  - (ii) Calcium hardness adjustment; and
  - (iii) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.
- (2) The water system shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration.

(3) The water system shall measure the following water quality parameters in any tests conducted under this paragraph before and after evaluating the corrosion control treatments listed above:

- (i) Lead;
- (ii) Copper;
- (iii) pH;
- (iv) Alkalinity;
- (v) Calcium;
- (vi) Conductivity;
- (vii) Orthophosphate (when an inhibitor containing a phosphate compound is used);
- (viii) Silicate (when an inhibitor containing a silicate compound is used);
- (ix) Water temperature.

(4) The water system shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

- (i) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or
- (ii) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) The water system shall evaluate the effect of the chemicals used for corrosion control treatment on other water quality treatment processes.

(6) On the basis of an analysis of the data generated during each evaluation, the water system shall recommend to the State in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (c)(1) through (5) of this section.

(d) *State designation of optimal corrosion control treatment.* (1) Based upon consideration of available information including, where applicable, studies performed under paragraph (c) of this section and a system's recommended treatment alternative, the State shall either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (c)(1) of this section. When designating optimal treatment the State shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water quality treatment processes.

(2) The State shall notify the system of its decision on optimal corrosion control treatment in writing and explain the basis for this determination. If the State requests additional information to aid its review, the water system shall provide the information.

(e) *Installation of optimal corrosion control.* Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the State under paragraph (d) of this section.

(f) *State review of treatment and specification of optimal water quality control parameters.* The State shall evaluate the results of all lead and copper tap samples and water quality parameter samples submitted by the water system and determine whether the system has properly installed and operated the optimal corrosion control treatment designated by the State in paragraph (d) of this section. Upon reviewing the results of tap water and water quality parameter monitoring by the system, both before and after the system installs optimal corrosion control treatment, the State shall designate:

- (1) A minimum value or a range of values for pH measured at each entry point to the distribution system;
- (2) A minimum pH value, measured in all tap samples. Such value shall be equal to or greater than 7.0, unless the State determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;
- (3) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the State determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system;
- (4) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;
- (5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples.

The values for the applicable water quality control parameters listed above shall be those that the State determines to reflect optimal corrosion control treatment for the system. The State may designate values for additional water quality control parameters determined by the State to reflect optimal corrosion control for the system. The State shall notify the system in writing of these determinations and explain the basis for its decisions.

(g) *Continued operation and monitoring.* All systems optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameters at or above minimum values or within ranges designated by the State under paragraph (f) of this section, in accordance with this paragraph for all samples collected under §§141.87(d) through (f). Compliance with the requirements of this paragraph shall be determined every six months, as specified under §141.87(d). A water system is out of compliance with the requirements of this paragraph for a six-month period if it has excursions for any State-specified parameter on more than nine days during the period. An excursion occurs whenever the daily value for one or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the State. Daily values are calculated as follows. States have discretion to delete results of obvious sampling errors from this calculation.

(1) On days when more than one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the average of all results collected during the day regardless of whether they are collected through continuous monitoring, grab sampling, or a combination of both. If EPA has approved an alternative formula under §142.16 of this chapter in the State's application for a program revision submitted pursuant to §142.12 of this chapter, the State's formula shall be used to aggregate multiple measurements taken at a sampling point for the water quality parameter in lieu of the formula in this paragraph.

(2) On days when only one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the result of that measurement.

(3) On days when no measurement is collected for the water quality parameter at the sampling location, the daily value shall be the daily value calculated on the most recent day on which the water quality parameter was measured at the sample site.

(h) *Modification of State treatment decisions.* Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the optimal corrosion control treatment under paragraph (d) of this section or optimal water quality control parameters under paragraph (f) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to optimize corrosion control treatment. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(i) *Treatment decisions by EPA in lieu of the State.* Pursuant to the procedures in §142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (d), (f), or (h) of this section and issue federal treatment determinations consistent with the requirements of those paragraphs where the Regional Administrator finds that:

- (1) A State has failed to issue a treatment determination by the applicable deadlines contained in §141.81,
- (2) A State has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or
- (3) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

### **§141.83 Source water treatment requirements.**

Systems shall complete the applicable source water monitoring and treatment requirements (described in the referenced portions of paragraph (b) of this section, and in §§141.86, and 141.88) by the following deadlines.

(a) *Deadlines for completing source water treatment steps* — (1) *Step 1:* A system exceeding the lead or copper action level shall complete lead and copper source water monitoring (§141.88(b)) and make a treatment recommendation to the State (§141.83(b)(1)) ~~within 6 months~~ **no later than 180 days after the end of the monitoring period during which exceeding the lead or copper action level was exceeded.**

(2) *Step 2:* The State shall make a determination regarding source water treatment (§141.83(b)(2)) within 6 months after submission of monitoring results under step 1.

(3) *Step 3:* If the State requires installation of source water treatment, the system shall install the treatment (§141.83(b)(3)) within 24 months after completion of step 2.

(4) *Step 4:* The system shall complete follow-up tap water monitoring (§ 141.86(d)(2)) and source water monitoring (§141.88(c)) within 36 months after completion of step 2.

(5) *Step 5:* The State shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels (§141.83(b)(4)) within 6 months after completion of step 4.

(6) *Step 6:* The system shall operate in compliance with the State-specified maximum permissible lead and copper source water levels (§141.83(b)(4)) and continue source water monitoring (§141.88(d)).

(b) *Description of source water treatment requirements--*(1) *System treatment recommendation.* Any system which exceeds the lead or copper action level shall recommend in writing to the State the installation and operation of one of the source water treatments listed in paragraph (b)(2) of this section. A system may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.

(2) *State determination regarding source water treatment.* The State shall complete an evaluation of the results of all source water samples submitted by the water system to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the State determines that treatment is needed, the State shall either require installation and operation of the source water treatment recommended by the system (if any) or require the installation and operation of another source water treatment from among the following: Ion exchange, reverse osmosis, lime softening or coagulation/filtration. If the State requests additional information to aid in its review, the water system shall provide the information by the date specified by the State in its request. The State shall notify the system in writing of its determination and set forth the basis for its decision.

(3) *Installation of source water treatment.* Each system shall properly install and operate the source water treatment designated by the State under paragraph (b)(2) of this section.

(4) *State review of source water treatment and specification of maximum permissible source water levels.* The State shall review the source water samples taken by the water system both before and after the system installs source water treatment, and determine whether the system has properly installed and operated the source water treatment designated by the State. Based upon its review, the State shall designate the maximum permissible lead and copper concentrations for finished water entering the distribution system. Such levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The State shall notify the system in writing and explain the basis for its decision.

(5) *Continued operation and maintenance.* Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the State at each sampling point monitored in accordance with §141.88. The system is out of compliance with this paragraph if the level of lead or copper at any sampling point is greater than the maximum permissible concentration designated by the State.

(6) *Modification of State treatment decisions.* Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the source water treatment under paragraph (b)(2) of this section, or maximum permissible lead and copper concentrations for finished water entering the distribution system under paragraph (b)(4) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(7) *Treatment decisions by EPA in lieu of the State.* Pursuant to the procedures in §142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (b) (2), (4), or (6) of this section and issue Federal treatment determinations consistent with the requirements of those paragraphs where the Administrator finds that:

- (i) A State has failed to issue a treatment determination by the applicable deadlines contained in §141.83(a),
- (ii) A state has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or
- (iii) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.



#### **§141.84 Lead service line replacement requirements.**

(a) Systems that fail to meet the lead action level in tap samples taken pursuant to §141.86(d)(2), after installing corrosion control and/or source water treatment (whichever sampling occurs later), shall replace lead service lines in accordance with the requirements of this section. If a system is in violation of §141.81 or §141.83 for failure to install source water or corrosion control treatment, the State may require the system to commence lead service line replacement under this section after the date by which the system was required to conduct monitoring under §141.86(d)(2) has passed.

(b)(1) A water system shall replace annually at least 7 percent of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The system shall identify the initial number of lead service lines in its distribution system, including an identification of the portion(s) owned by the system, based on a materials evaluation, including the evaluation required under §141.86(a) and relevant legal authorities (e.g., contracts, local ordinances) regarding the portion owned by the system. The first year of lead service line replacement shall begin on the **first day following the end of the monitoring period in which** ~~date~~ the action level was exceeded ~~in tap sampling referenced in~~ under paragraph (a) of this section. **If monitoring is required annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs. If the State has established an alternate monitoring period, then the end of the monitoring period will be the last day of that period.**

**(2) Any water system resuming a lead service line replacement program after the cessation of its lead service line replacement program as allowed by paragraph (f) of this section shall update its inventory of lead service lines to include those sites that were previously determined not to require replacement through the sampling provision under paragraph (c) of this section. The system will then divide the updated number of remaining lead service lines by the number of remaining years in the program to determine the number of lines that must be replaced per year (7 percent lead service line replacement is based on a 15-year replacement program, so, for example, systems resuming lead service line replacement after previously conducting two years of replacement would divide the updated inventory by 13). For those systems that have completed a 15-year lead service line replacement program, the State will determine a schedule for replacing or retesting lines that were previously tested out under the replacement program when the system re-exceeds the action level.**

(c) A system is not required to replace an individual lead service line if the lead concentration in all service line samples from that line, taken pursuant to §141.86(b)(3), is less than or equal to 0.015 mg/L.

(d) A water system shall replace that 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 it 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, nor is it required to replace the privately-owned portion where the owner chooses not to pay the cost of replacing the privately-owned portion of the line, or where replacing the privately-owned portion would be precluded by State, local or common law. A water system that does not replace the entire length of the service line also shall complete the following tasks.

(1) At least 45 days prior to commencing with the partial replacement of a lead service line, the water system shall provide notice to the resident(s) of all buildings served by the line explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead. The State may allow the water system to provide notice under the previous sentence less than 45 days prior to commencing partial lead service line replacement where such replacement is in conjunction with emergency repairs. In addition, the water system shall inform the resident(s) served by the line 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, as prescribed under §141.86(b)(3), within 72 hours after the completion of the partial replacement of the service line. The system shall collect the sample and report the results of the analysis to the owner and

the resident(s) served by the line within three business days of receiving the results. Mailed notices post-marked within three business days of receiving the results shall be considered “on time.”

(2) The water system shall provide the information required by paragraph (d)(1) of this section to the residents of individual dwellings by mail or by other methods approved by the State. In instances where multi-family dwellings are served by the line, the water system shall have the option to post the information at a conspicuous location.

(e) The State shall require a system to replace lead service lines on a shorter schedule than that required by this section, taking into account the number of lead service lines in the system, where such a shorter replacement schedule is feasible. The State shall make this determination in writing and notify the system of its finding within 6 months after the system is triggered into lead service line replacement based on monitoring referenced in paragraph (a) of this section.

(f) Any system may cease replacing lead service lines whenever first draw samples collected pursuant to §141.86(b)(2) meet the lead action level during each of two consecutive monitoring periods and the system submits the results to the State. If first draw tap samples collected in any such system thereafter exceeds the lead action level, the system shall recommence replacing lead service lines pursuant to paragraph (b)(2) of this section.

(g) To demonstrate compliance with paragraphs (a) through (d) of this section, a system shall report to the State the information specified in §141.90(e).

#### **§141.85 Public education and supplemental monitoring requirements.**

All water systems must deliver a consumer notice of lead tap water monitoring results to persons served by the water system at sites that are tested, as specified in paragraph (d) of this section. A water system that exceeds the lead action level based on tap water samples collected in accordance with §141.86 shall deliver the public education materials contained in paragraphs (a) and (b) of this section in accordance with the requirements in paragraph (e)(b) of this section. Water systems that exceed the lead action level must sample the tap water of any customer who requests it in accordance with paragraph (c) of this section.

(a) *Content of written public education materials.* (1) Community water systems and Non-transient non-community water systems. Water systems must include the following elements in printed materials (e.g., brochures and pamphlets) in the same order as listed below. In addition, language in paragraphs (a)(1)(i) through (ii) and (a)(1)(vi) of this section must be included in the materials, exactly as written, except for the text in brackets in these paragraphs for which the water system must include system-specific information. A community water system shall include the following text in all of the printed materials it distributes through its lead public education program. Systems may delete information pertaining to lead service lines, upon approval by the State, if no lead service lines exist anywhere in the water system service area. Public education language at paragraphs (a)(1)(iv)(B)(5) and (a)(1)(iv)(D)(2) of this section may be modified regarding building permit record availability and consumer access to these records, if approved by the State. Systems may also continue to utilize pre-printed materials that meet the public education language requirements in 40 CFR 141.85, effective November 6, 1991 and contained in 40 CFR, Parts 100–149 additionally revised as of July 1, 1991. Any additional information presented by a water system shall must be consistent with the information below and be in plain English language that can be understood by lay people the general public. Water systems must submit all written public education materials to the State prior to delivery. The State may require the system to obtain approval of the content of written public materials prior to delivery.

(i) **IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER.** [INSERT NAME OF WATER SYSTEM] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water. *Introduction.* The United States Environmental Protection Agency (EPA) and [insert name of water supplier] are concerned about lead



in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

(ii) Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination like dirt and dust that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

(iii) Sources of Lead.

(A) Explain what lead is. *Lead in drinking water.* (A) Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposures of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

(B) Explain possible sources of lead in drinking water and how lead enters drinking water. Include information on home/building plumbing materials and service lines that may contain lead. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.

(C) Discuss other important sources of lead exposure in addition to drinking water (e.g., paint). When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

(iv) Discuss the steps the consumer can take to reduce their exposure to lead in drinking water. *Steps you can take in the home to reduce exposure to lead in drinking water.*

(A) Encourage running the water to flush out the lead. Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or

smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call [insert phone number of water system].

(B) Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula. If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

(1) Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15-30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than [insert a cost estimate based on flushing two times a day for 30 days] per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more, and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.

(2) Try not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

(3) Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

(4) If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify your State [insert name of department responsible for enforcing the Safe Drinking Water Act in your State] about the violation.

(5) Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the city's record of building permits which should be maintained in the files of the [insert name of department that issues building permits]. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the portion of the line we own. If the line is only partially owned by the [insert the name of the city, county, or water system that owns the line], we are required to provide the owner of the privately owned portion of the line with information on how to replace the privately owned portion of the service line, and offer to replace that portion of the line at the owner's expense. If we replace only the portion of the line that we own, we also are required to notify you in advance and provide you with information on the steps you can take to minimize exposure to any temporary increase in lead levels that may result from the partial replacement, to take a follow up sample at our expense from the line within 72 hours after the partial replacement, and to mail or otherwise provide you with the results of that sample within three business days of receiving the results. Acceptable replacement alternatives include copper, steel, iron, and plastic pipes.

~~(6) Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.~~

(C) **Explain that boiling water does not reduce lead levels.** The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

~~(1) Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Some activated carbon filters *may* reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit.~~

~~(2) Purchase bottled water for drinking and cooking.~~

(D) **Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.** You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

~~(1) [insert the name of city or county department of public utilities] at [insert phone number] can provide you with information about your community's water supply, and a list of local laboratories that have been certified by EPA for testing water quality;~~

~~(2) [insert the name of city or county department that issues building permits] at [insert phone number] can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and~~

~~(3) [insert the name of the State Department of Public Health] at [insert phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead and how you can have your child's blood tested.~~

(E) **Suggest that parents have their child's blood tested for lead.** The following is a list of some State approved laboratories in your area that you can call to have your water tested for lead. [Insert names and phone numbers of at least two laboratories].

(v) **Explain why there are elevated levels of lead in the system's drinking water (if known) and what the water system is doing to reduce the lead levels in homes/buildings in this area.**

(vi) **For more information call us at [INSERT YOUR NUMBER] [(IF APPLICABLE)], or visit our Web site at [INSERT YOUR WEB SITE HERE]].** For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at <http://www.epa.gov/lead> or contact your health care provider.

(2) **Community water systems.** In addition to including the elements specified in paragraph (a)(1) of this section, community water systems must: ~~Non-transient non-community water systems.~~ A non-transient non-community water system shall either include the text specified in paragraph (a)(1) of this section or shall include the following text in all of the printed materials it distributes through its lead public education program. Water systems may delete information pertaining to lead service lines upon approval by the State if no lead service lines exist anywhere in the water system service area. Any additional information presented by

a system shall be consistent with the information below and be in plain English that can be understood by lay people:

(i) **Tell consumers how to get their water tested.** *Introduction.* The United States Environmental Protection Agency (EPA) and [insert name of water supplier] are concerned about lead in your drinking water. Some drinking water samples taken from this facility have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

(ii) **Discuss lead in plumbing components and the difference between low lead and lead free.** *Health effects of lead.* Lead is found throughout the environment in lead based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination—like dirt and dust—that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

(iii) *Lead in drinking water.* (A) Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

(B) Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect houses and buildings to water mains (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.

(C) When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

(iv) *Steps you can take to reduce exposure to lead in drinking water.* (A) Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in plumbing the more lead it may contain. Flushing the tap means running the cold water faucet for about 15–30 seconds. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

(B) Do not cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and then heat it.

(C) The steps described above will reduce the lead concentrations in your drinking water. However, if you are still concerned, you may wish to use bottled water for drinking and cooking.

(D) You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

(1) [insert the name or title of facility official if appropriate] at [insert phone number] can provide you with information about your facility's water supply; and

(2) [insert the name or title of the State Department of Public Health] at [insert phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead.

~~(b) Content of broadcast materials.~~ A water system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

~~(1) Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for [insert free or \$ per sample]. You can contact the [insert the name of the city or water system] for information on testing and on simple ways to reduce your exposure to lead in drinking water.~~

~~(2) To have your water tested for lead, or to get more information about this public health concern, please call [insert the phone number of the city or water system].~~

~~(c)(b) Delivery of a public education program materials.~~ (1) For public water systems serving a large proportion of non-English speaking consumers, as determined by the State, the public education materials must contain information in the appropriate language(s) regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the public education materials or to request assistance in the appropriate language. ~~In communities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language(s).~~

(2) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with §141.86, and that is not already ~~repeating~~ **conducting** public education tasks ~~pursuant to paragraph (c)(3), (c)(7), or (c)(8), of~~ **under** this section, **must conduct the public education tasks under this section shall**, within 60 days **after the end of the monitoring period in which the exceedance occurred:**

(i) **Deliver printed materials meeting the content requirements of paragraph (a) of this section to all bill paying customers.**

~~Insert notices in each customer's water utility bill containing the information in paragraph (a)(1) of this section, along with the following alert on the water bill itself in large print: "SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION." A community water system having a billing cycle that does not include a billing within 60 days of exceeding the action level, or that cannot insert information in the water utility bill without making major changes to its billing system, may use a separate mailing to deliver the information in paragraph (a)(1) of this section as long as the information is delivered to each customer within 60 days of exceeding the action level. Such water systems shall also include the "alert" language specified in this paragraph.~~

(ii) (A) **Contact customers who are most at risk by delivering education materials that meet the content requirements of paragraph (a) of this section to local 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 organization's potentially affected customers or community water system's users. The water system must contact the local public health agencies directly by phone or in person. The local public health agencies may provide a specific list of additional community based organizations serving target populations, which may include organizations outside the service area of the water system. If such lists are provided, systems must deliver education materials that meet the content requirements of paragraph (a) of this section to all organizations on the provided lists. Submit the information in paragraph (a)(1) of this section to the editorial departments of the major daily and weekly newspapers circulated throughout the community.**

(B) **Contact customers who are most at risk by delivering materials that meet the content requirements of paragraph (a) of this section to the following organizations listed in 1 through 6 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 community water system's users:**

- (1) Public and private schools or school boards.**
- (2) Women, Infants and Children (WIC) and Head Start programs.**
- (3) Public and private hospitals and medical clinics.**
- (4) Pediatricians.**



- (5) Family planning clinics.
- (6) Local welfare agencies.

(C) Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements of paragraph (a) of this section to them, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of these organizations from the local public health agencies, even if the agencies are not located within the water system's service area:

- (1) Licensed childcare centers
- (2) Public and private preschools.
- (3) Obstetricians-Gynecologists and Midwives.

(iii) No less often than quarterly, provide information on or in each water bill as long as the system exceeds the action level for lead. The message on the water bill must include the following statement exactly as written except for the text in brackets for which the water system must include system-specific information: [INSERT NAME OF WATER SYSTEM] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [INSERT NAME OF WATER SYSTEM] [or visit (INSERT YOUR WEB SITE HERE)]. The message or delivery mechanism can be modified in consultation with the State; specifically, the State may allow a separate mailing of public education materials to customers if the water system cannot place the information on water bills.

~~Deliver pamphlets and/or brochures that contain the public education materials in paragraphs (a)(1)(ii) and (a)(1)(iv) of this section to facilities and organizations, including the following:~~

- ~~(A) Public schools and/or local school boards;~~
- ~~(B) City or county health department;~~
- ~~(C) Women, Infants, and Children and/or Head Start Program(s) whenever available;~~
- ~~(D) Public and private hospitals and/or clinics;~~
- ~~(E) Pediatricians;~~
- ~~(F) Family planning clinics; and~~
- ~~(G) Local welfare agencies.~~

(iv) ~~Post material meeting the content requirements of paragraph (a) of this section on the water system's Web site if the system serves a population greater than 100,000. Submit the public service announcement in paragraph (b) of this section to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.~~

(v) Submit a press release to newspaper, television and radio stations.

(vi) In addition to paragraphs (b)(2)(i) through (v) of this section, systems must implement at least three activities from one or more categories listed below. The educational content and selection of these activities must be determined in consultation with the State.

- (A) Public Service Announcements.
- (B) Paid advertisements.
- (C) Public Area Informational Displays.
- (D) E-mails to customers.
- (E) Public Meetings.
- (F) Household Deliveries.
- (G) Targeted Individual Customer Contact.
- (H) Direct material distribution to all multi-family homes and institutions.
- (I) Other methods approved by the State.

(vii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(3) As long as a community water system exceeds the action level, it must repeat the activities pursuant to paragraph (b)(2) of this section as described in paragraphs (b)(3)(i) through (iv) of this section. ~~A community water system shall repeat the tasks contained in paragraphs (c)(2) (i), (ii) and (iii) of this section every 12 months, and the tasks contained in paragraphs (c)(2)(iv) of this section every 6 months for as long as the system exceeds the lead action level.~~

(i) A community water system shall repeat the tasks contained in paragraphs (b)(2)(i), (ii) and (vi) of this section every 12 months.

(ii) A community water system shall repeat tasks contained in paragraph (b)(2)(iii) of this section with each billing cycle.

(iii) A community water system serving a population greater than 100,000 shall post and retain material on a publicly accessible Web site pursuant to paragraph (b)(2)(iv) of this section.

(iv) The community water system shall repeat the task in paragraph (b)(2)(v) of this section twice every 12 months on a schedule agreed upon with the State. The State can allow activities in paragraph (b)(2) of this section to extend beyond the 60-day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60-day deadline.

(4) Within 60 days after ~~the end of the monitoring period in which the exceedance occurred it exceeds the lead action level~~ (unless it already is repeating public education tasks pursuant to paragraph ~~(c)(b)(5)~~ of this section), a non-transient non-community water system shall deliver the public education materials specified by paragraph (a)(4) of this section ~~or the public education materials specified by paragraph (a)(2) of this section~~ as follows:

(i) 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

(ii) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the non-transient non-community water system. The State may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

(iii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(5) A non-transient non-community water system shall repeat the tasks contained in paragraph ~~(c)(b)(4)~~ of this section at least once during each calendar year in which the system exceeds the lead action level. ~~The State can allow activities in (b)(4) of this section to extend beyond the 60-day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60-day deadline.~~

(6) A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to §141.86. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

(7) A community water system may apply to the State, in writing, (unless the State has waived the requirement for prior State approval) to use **only** the text specified in paragraph (a)(2)(1) of this section in lieu of the text in paragraphs (a)(1) **and** (a)(2) of this section and to perform the tasks listed in paragraphs ~~(c)(b)(4)~~ and ~~(c)(b)(5)~~ of this section in lieu of the tasks in paragraphs ~~(c)(b)(2)~~ and ~~(c)(b)(3)~~ of this section if:

(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 plumbing or installing point of use treatment devices; and

(ii) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

~~(8)(i) A community water system serving 3,300 or fewer people may omit the task contained in paragraph (c)(2)(iv) of this section. As long as it distributes notices containing the information contained in paragraph (a)(1) of this section to every household served by the system, such systems may further limit certain aspects of their public education programs as follows:~~

~~(i) With respect to the requirements of paragraph (b)(2)(vi) of this section, a system serving 3,300 or fewer must implement at least one of the activities listed in that paragraph.~~

~~(ii) With respect to the requirements of paragraph (b)(2)(ii) of this section, a system serving 3,300 or fewer people may limit the distribution of the public education materials required under that paragraph to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.~~

~~(iii) With respect to the requirements of paragraph (b)(2)(v) of this section, the State may waive this requirement for systems serving 3,300 or fewer persons as long as system distributes notices to every household served by the system.~~

~~(A) Systems serving 500 or fewer people may forego the task contained in paragraph (c)(2)(ii) of this section. Such a system may limit the distribution of the public education materials required under paragraph (c)(2)(iii) of this section to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children, unless it is notified by the State in writing that it must make a broader distribution.~~

~~(B) If approved by the State in writing, a system serving 501 to 3,300 people may omit the task in paragraph (c)(2)(ii) of this section and/or limit the distribution of the public education materials required under paragraph (c)(2)(iii) of this section to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.~~

~~(ii) A community water system serving 3,300 or fewer people that delivers public education in accordance with paragraph (c)(8)(i) of this section shall repeat the required public education tasks at least once during each calendar year in which the system exceeds the lead action level.~~

~~(c)(4) Supplemental monitoring and notification of results.~~ A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with §141.86 shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.

~~(d) Notification of results.~~ (1) Reporting requirement. All water systems must provide a notice of the individual tap results from lead tap water monitoring carried out under the requirements of §141.86 to the persons served by the water system at the specific sampling site from which the sample was taken (e.g., the occupants of the residence where the tap was tested).

~~(2) Timing of notification.~~ A water system must provide the consumer notice as soon as practical, but no later than 30 days after the system learns of the tap monitoring results.

~~(3) Content.~~ The consumer notice must include the results of lead tap water monitoring for the tap that was tested, an explanation of the health effects of lead, list steps consumers can take to reduce exposure to lead in drinking water and contact information for the water utility. The notice must also provide the maximum contaminant level goal and the action level for lead and the definitions for these two terms from §141.153(c).



(4) *Delivery.* The consumer notice must be provided to persons served at the tap that was tested, either by mail or by another method approved by the State. For example, upon approval by the State, a non-transient non-community water system could post the results on a bulletin board in the facility to allow users to review the information. The system must provide the notice to customers at sample taps tested, including consumers who do not receive water bills.

#### **§141.86 Monitoring requirements for lead and copper in tap water.**

(a) *Sample site location.* (1) By the applicable date for commencement of monitoring under paragraph (d)(1) of this section, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (c) of this section. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(2) A water system shall use the information on lead, copper, and galvanized steel that it is required to collect under §141.42(d) of this part [special monitoring for corrosivity characteristics] when conducting a materials evaluation. When an evaluation of the information collected pursuant to §141.42(d) is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in paragraph (a) of this section, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

(i) All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

(ii) All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

(iii) All existing water quality information, which includes the results of all 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.

(3) The sampling sites selected for a community water system's sampling pool ("tier 1 sampling sites") shall consist of single family structures that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line. When multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures in its sampling pool.

(4) Any community water system with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites", consisting of buildings, including multiple-family residences that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(5) Any community water system with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites", consisting of single family structures that contain copper pipes with lead solder installed before 1983. A community water system with insufficient tier 1, tier 2, and tier 3 sampling

sites shall complete its sampling pool with representative sites throughout the distribution system. For the purpose of this paragraph, 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.

(6) The sampling sites selected for a non-transient noncommunity water system (“tier 1 sampling sites”) shall consist of buildings that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(7) A non-transient non-community water system with insufficient tier 1 sites that meet the targeting criteria in paragraph (a)(6) of this section 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 non-transient non-community water system shall use representative sites throughout the distribution system. For the purpose of this paragraph, 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.

(8) Any water system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall collect first draw samples from all of the sites identified as being served by such lines.

(b) *Sample collection methods.* (1) All tap samples for lead and copper collected in accordance with this subpart, with the exception of lead service line samples collected under §141.84(c) and samples collected under paragraph (b)(5) of this section, shall be first draw samples.

(2) Each first draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours. 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 one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Non-first-draw samples collected in lieu of first-draw samples pursuant to paragraph (b)(5) of this section shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First-draw samples may be collected by the system or the system may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph. To avoid problems of residents handling nitric acid, acidification of first-draw samples may be done 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. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(3) Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three 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; or

(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.

(4) A water system shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up 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 of the original site.

(5) A non-transient non-community water system, or a community water system that meets the criteria of §§141.85(c)(b)(7)(i) and (ii), that does not have enough taps that can supply first-draw samples, as defined in §141.2, may apply to the State in writing to substitute non-first-draw samples. Such systems must collect as many first-draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The State has the discretion to waive the requirement for prior State approval of non-first-draw sample sites selected by the system, either through State regulation or written notification to the system.

(c) *Number of samples.* Water systems shall collect at least one sample during each monitoring period specified in paragraph (d) of this section from the number of sites listed in the first column (“standard monitoring”) of the table in this paragraph. A system conducting reduced monitoring under paragraph (d)(4) of this section shall collect at least one sample from the number of sites specified in the second column (“reduced monitoring”) of the table in this paragraph during each monitoring period specified in paragraph (d)(4) of this section. Such reduced monitoring sites shall be representative of the sites required for standard monitoring.

A public water system that has fewer than five drinking water taps, that can be used for human consumption meeting the sample site criteria of paragraph (a) of this section to reach the required number of sample sites listed in paragraph (c) of this section, must collect at least one sample from each tap and then must collect additional samples from those taps on different days during the monitoring period to meet the required number of sites. Alternatively, the State may allow these public water systems to collect a number of samples less than the number of sites specified in paragraph (c) of this section, provided that 100 percent of all taps that can be used for human consumption are sampled. The State must approve this reduction of the minimum number of samples in writing based on a request from the system or onsite verification by the State. States may specify sampling locations when a system is conducting reduced monitoring. The table is as follows:

System size ( <i>number of people served</i> )	Number of sites ( <i>standard monitoring</i> )	Number of sites ( <i>reduced monitoring</i> )
>100,000 .....	100	50
10,001 - to 100,000 .....	60	30
3,301 - to 10,000 .....	40	20
501 - to 3,300 .....	20	10
101 to 500 .....	10	5
≤100 .....	5	5

(d) *Timing of monitoring --(1) Initial tap sampling.*

The first six-month monitoring period for small, medium-size and large systems shall begin on the following dates:

System size ( <i>number people served</i> )	First six-month monitoring period begins on
>50,000 .....	January 1, 1992.
3,301 to 50,000 .....	July 1, 1992.
≤3,300 .....	July 1, 1993.

(i) All large systems shall monitor during two consecutive six-month periods.

(ii) All small and medium-size systems shall monitor during each six-month monitoring period until:

(A) The system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under §141.81, in which case the system shall continue monitoring in accordance with paragraph (d)(2) of this section, or

(B) The system meets the lead and copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with paragraph (d)(4) of this section.

(2) *Monitoring after installation of corrosion control and source water treatment.* (i) Any large system which installs optimal corrosion control treatment pursuant to §141.81(d)(4) shall monitor during two consecutive six-month monitoring periods by the date specified in §141.81(d)(5).

(ii) Any small or medium-size system which installs optimal corrosion control treatment pursuant to §141.81(e)(5) shall monitor during two consecutive six-month monitoring periods by the date specified in §141.81(e)(6).

(iii) Any system which installs source water treatment pursuant to §141.83(a)(3) shall monitor during two consecutive six-month monitoring periods by the date specified in §141.83(a)(4).

(3) *Monitoring after State specifies water quality parameter values for optimal corrosion control.* After the State specifies the values for water quality control parameters under §141.82(f), the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the State specifies the optimal values under §141.82(f).

(4) *Reduced monitoring.* (i) A small or medium-size water system that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with paragraph (c) of this section, and reduce the frequency of sampling to once per year. A small or medium water system collecting fewer than five samples as specified in paragraph (c) of this section, that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the frequency of sampling to once per year. In no case can the system reduce the number of samples required below the minimum of one sample per available tap. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(ii) Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under §141.82(f) during each of two consecutive six-month monitoring periods may reduce the frequency of monitoring to once per year and reduce the number of lead and copper samples in accordance with paragraph (c) of this section if it receives written approval from the State. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with §141.90, and shall notify the system in writing when it determines the system is eligible to commence reduced monitoring pursuant to this paragraph. The State shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iii) A small or medium-size water system that meets the lead and copper action levels during three consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three years. Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under §141.82(f) during three consecutive years of monitoring may reduce the frequency of monitoring from annually to once every three years if it receives written approval from the State. Samples collected once every three years shall be collected no later than every third calendar year. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with §141.90, and shall notify the system in writing when it determines the system is eligible to reduce the frequency of monitoring to once every three years. The State shall review, and where appropriate, revise its determination

when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iv) A water system that reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling sites identified in paragraph (a) of this section. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August or September unless the State has approved a different sampling period in accordance with paragraph (d)(4)(iv)(A) of this section.

(A) The State, at its discretion, may approve a different period for conducting the lead and copper tap sampling for systems collecting a reduced number of samples. Such a period shall be no longer than four consecutive months and must represent a time of normal operation where the highest levels of lead are most likely to occur. For a non-transient non-community water system that does not operate during the months of June through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the State shall designate a period that represents a time of normal operation for the system. **This sampling shall begin during the period approved or designated by the State in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring and during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.**

(B) Systems monitoring annually, that have been collecting samples during the months of June through September and that receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 21 months after the previous round of sampling. Systems monitoring triennially that have been collecting samples during the months of June through September, and receive State approval to alter the sampling collection period as per paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 45 months after the previous round of sampling. Subsequent rounds of sampling must be collected annually or triennially, as required by this section. Small systems with waivers, granted pursuant to paragraph (g) of this section, that have been collecting samples during the months of June through September and choose to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section must collect their next round of samples before the end of the 9-year period.

(v) Any water system that demonstrates for two consecutive 6-month monitoring periods that the tap water lead level computed under §141.80(c)(3) is less than or equal to 0.005 mg/L and the tap water copper level computed under §141.80(c)(3) is less than or equal to 0.65 mg/L may reduce the number of samples in accordance with paragraph (c) of this section and reduce the frequency of sampling to once every three calendar years.

(vi)(A) A small or medium-size water system subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section. Such a system shall also conduct water quality parameter monitoring in accordance with §141.87(b), (c) or (d) (as appropriate) during the monitoring period in which it exceeded the action level. Any such system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(i) of this section and/or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section.

(B) Any water system subject to the reduced monitoring frequency that fails to **meet the lead action level during any four-month monitoring period or that fails to** operate at or above the minimum value or within the range of values for the water quality parameters specified by the State under §141.82(f) for more than nine days in any six-month period specified in §141.87(d) shall conduct tap water sampling for lead and copper at the frequency specified in paragraph (d)(3) of this section, collect the number of samples specified for standard monitoring under paragraph (c) of this section, and shall resume monitoring for water quality



parameters within the distribution system in accordance with §141.87(d). **This standard tap water sampling shall begin no later than the six-month period beginning January 1 of the calendar year following the lead action level exceedance or water quality parameter excursion.** Such a system may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:

(1) The system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(ii) of this section and the system has received written approval from the State that it is appropriate to resume reduced monitoring on an annual frequency. **This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.**

(2) The system may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section and the system has received written approval from the State that it is appropriate to resume triennial monitoring.

(3) The system may reduce the number of water quality parameter tap water samples required in accordance with §141.87(e)(1) and the frequency with which it collects such samples in accordance with §141.87(e)(2). Such a system may not resume triennial monitoring for water quality parameters at the tap until it demonstrates, in accordance with the requirements of §141.87(e)(2), that it has re-qualified for triennial monitoring.

(vii) Any water system subject to a reduced monitoring frequency under paragraph (d)(4) of this section ~~that either adds a new source of water or changes any water treatment shall inform~~ **notify** the State in writing in accordance with §141.90(a)(3) **of any upcoming long-term change in treatment or addition of a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system.** The State may require the system to resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section or take other appropriate steps such as increased water quality parameter monitoring or re-evaluation of its corrosion control treatment given the potentially different water quality considerations.

(e) *Additional monitoring by systems.* The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this subpart.

(f) *Invalidation of lead or copper tap water samples.* A sample invalidated under this paragraph does not count toward determining lead or copper 90th percentile levels under §141.80(c)(3) or toward meeting the minimum monitoring requirements of paragraph (c) of this section.

(1) The State may invalidate a lead or copper tap water sample at least if one of the following conditions is met.

(i) The laboratory establishes that improper sample analysis caused erroneous results.

(ii) The State determines that the sample was taken from a site that did not meet the site selection criteria of this section.

(iii) The sample container was damaged in transit.

(iv) There is substantial reason to believe that the sample was subject to tampering.

(2) The system must report the results of all samples to the State and all supporting documentation for samples the system believes should be invalidated.

(3) To invalidate a sample under paragraph (f)(l) of this section, the decision and the rationale for the decision must be documented in writing. States may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.

(4) The water system must collect replacement samples for any samples invalidated under this section if, after the invalidation of one or more samples, the system has too few samples to meet the minimum requirements of paragraph (c) of this section. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the State invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The 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.

(g) *Monitoring waivers for small systems.* Any small system that meets the criteria of this paragraph may apply to the State to reduce the frequency of monitoring for lead and copper under this section to once every nine years (i.e., a “full waiver”) if it meets all of the materials criteria specified in paragraph (g)(1) of this section and all of the monitoring criteria specified in paragraph (g)(2) of this section. If State regulations permit, any small system that meets the criteria in paragraphs (g)(1) and (2) of this section only for lead, or only for copper, may apply to the State for a waiver to reduce the frequency of tap water monitoring to once every nine years for that contaminant only (i.e., a “partial waiver”).

(1) *Materials criteria.* The system must demonstrate that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are free of lead-containing materials and/or copper-containing materials, as those terms are defined in this paragraph, as follows:

(i) *Lead.* To qualify for a full waiver, or a waiver of the tap water monitoring requirements for lead (i.e., a “lead waiver”), the water system must provide certification and supporting documentation to the State 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; and

(B) It is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless such fittings and fixtures meet the specifications of any standard established pursuant to 42 U.S.C. 300g-6(e) (SDWA section 1417(e)).

(ii) *Copper.* To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper (i.e., a “copper waiver”), the water system must provide certification and supporting documentation to the State that the system contains no copper pipes or copper service lines.

(2) *Monitoring criteria for waiver issuance.* The system must have completed at least one 6-month round of standard tap water monitoring for lead and copper at sites approved by the State and from the number of sites required by paragraph (c) of this section and demonstrate that the 90th percentile levels for any and all rounds of monitoring conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, meet the following criteria.

(i) *Lead levels.* To qualify for a full waiver, or a lead waiver, the system must demonstrate that the 90th percentile lead level does not exceed 0.005 mg/L.

(ii) *Copper levels.* To qualify for a full waiver, or a copper waiver, the system must demonstrate that the 90th percentile copper level does not exceed 0.65 mg/L.

(3) *State approval of waiver application.* The State shall notify the system of its waiver determination, in writing, setting forth the basis of its decision and any condition of the waiver. As a condition of the waiver, the State may require the system to perform specific activities (e.g., limited monitoring, periodic outreach to customers to remind them to avoid installation of materials that might void the waiver) to avoid the risk of lead or copper concentration of concern in tap water. The small system must continue monitoring for lead and copper at the tap as required by paragraphs (d)(1) through (d)(4) of this section, as appropriate, until it receives written notification from the State that the waiver has been approved.

(4) *Monitoring frequency for systems with waivers.* (i) A system with a full waiver must conduct tap water monitoring for lead and copper in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites identified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section for both lead and copper to the State along with the monitoring results. **Samples collected every nine years shall be collected no later than every ninth calendar year.**

(ii) A system with a partial waiver must conduct tap water monitoring for the waived contaminant in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites specified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section pertaining to the waived contaminant along with the monitoring results. Such a system also must continue to monitor for the non-waived contaminant in accordance with requirements of paragraph (d)(1) through (d)(4) of this section, as appropriate.

(iii) ~~If a~~ **Any water** system with a full or partial waiver ~~adds a new source of water or changes any water treatment, the system must~~ **shall** notify the State in writing in accordance with §141.90(a)(3) **of any upcoming long-term change in treatment or addition of a new source, as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system.** The State has the authority to require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional round(s) of monitoring), if it deems such modifications are necessary to address treatment or source water changes at the system.

(iv) If a system with a full or partial waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, as appropriate, (e.g., as a result of new construction or repairs), the system shall notify the State in writing no later than 60 days after becoming aware of such a change.

(5) *Continued eligibility.* If the system continues to satisfy the requirements of paragraph (g)(4) of this section, the waiver will be renewed automatically, unless any of the conditions listed in paragraph (g)(5)(i) through (g)(5)(iii) of this section occurs. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria of paragraphs (g)(1) and (g)(2) of this section.

(i) A system with a full waiver or a lead waiver no longer satisfies the materials criteria of paragraph (g)(1)(i) of this section or has a 90th percentile lead level greater than 0.005 mg/L.

(ii) A system with a full waiver or a copper waiver no longer satisfies the materials criteria of paragraph (g)(1)(ii) of this section or has a 90th percentile copper level greater than 0.65 mg/L.

(iii) The State notifies the system, in writing, that the waiver has been revoked, setting forth the basis of its decision.

(6) *Requirements following waiver revocation.* A system whose full or partial waiver has been revoked by the State is subject to the corrosion control treatment and lead and copper tap water monitoring requirements, as follows:



(i) If the system exceeds the lead and/or copper action level, the system must implement corrosion control treatment in accordance with the deadlines specified in §141.81(e), and any other applicable requirements of this subpart.

(ii) If the system meets both the lead and the copper action level, the system must monitor for lead and copper at the tap no less frequently than once every three years using the reduced number of sample sites specified in paragraph (c) of this section.

(7) *Pre-existing waivers.* Small system waivers approved by the State in writing prior to April 11, 2000 shall remain in effect under the following conditions:

(i) If the system has demonstrated that it is both free of lead-containing and copper-containing materials, as required by paragraph (g)(1) of this section and that its 90th percentile lead levels and 90th percentile copper levels meet the criteria of paragraph (g)(2) of this section, the waiver remains in effect so long as the system continues to meet the waiver eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the last time the system has monitored for lead and copper at the tap.

(ii) If the system has met the materials criteria of paragraph (g)(1) of this section but has not met the monitoring criteria of paragraph (g)(2) of this section, the system shall conduct a round of monitoring for lead and copper at the tap demonstrating that it meets the criteria of paragraph (g)(2) of this section no later than September 30, 2000. Thereafter, the waiver shall remain in effect as long as the system meets the continued eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the round of monitoring conducted pursuant to paragraph (g)(2) of this section.

#### **§141.87 Monitoring requirements for water quality parameters.**

All large water systems, and all small- and medium-size systems that exceed the lead or copper action level shall monitor water quality parameters in addition to lead and copper in accordance with this section. The requirements of this section are summarized in the table at the end of this section.

(a) *General requirements* -- (1) *Sample collection methods.* (i) Tap 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. Tap sampling under this section is not required to be conducted at taps targeted for lead and copper sampling under §141.86(a). [Note: Systems may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under 40 CFR 141.21.]

(ii) Samples collected at the entry point(s) to the distribution system 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 must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(2) *Number of samples.* (i) Systems shall collect two tap samples for applicable water quality parameters during each monitoring period specified under paragraphs (b) through (e) of this section from the following number of sites.

System size ( <i>number people served</i> )	Number of sites for water quality parameters
>100,000	25
10,001-100,000	10
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(ii) Except as provided in paragraph (c)(3) of this section, systems shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in paragraph (b) of this section. During each monitoring period specified in paragraphs (c)-(e) of this section, systems shall collect one sample for each applicable water quality parameter at each entry point to the distribution system.

(b) *Initial sampling* All large water systems shall measure the applicable water quality parameters as specified below at taps and at each entry point to the distribution system during each six-month monitoring period specified in §141.86(d)(1). All small and medium-size systems shall measure the applicable water quality parameters at the locations specified below during each six-month monitoring period specified in §141.86(d)(1) during which the system exceeds the lead or copper action level.

(1) At taps:

(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;

(vi) Conductivity; and

(vii) Water temperature.

(2) At each entry point to the distribution system: all of the applicable parameters listed in paragraph (b)(1) of this section.

(c) *Monitoring after installation of corrosion control.* Any large system which installs optimal corrosion control treatment pursuant to §141.81(d)(4) shall measure the water quality parameters at the locations and frequencies specified below during each six-month monitoring period specified in §141.86(d)(2)(i). Any small or medium-size system which installs optimal corrosion control treatment shall conduct such monitoring during each six-month monitoring period specified in §141.86(d)(2)(ii) in which the system exceeds the lead or copper action level.

(1) At taps, two samples 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.

(2) Except as provided in paragraph (c)(3) of this section, at each entry point to the distribution system, at least one sample no less frequently than every two weeks (biweekly) for:

(i) pH;

(ii) When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

(iii) When a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica (whichever is applicable).

(3) Any ground water system can limit entry point sampling described in paragraph (c)(2) of this section to those entry points that are representative of water quality and treatment conditions throughout the system. If water from untreated ground water sources mixes with water from treated ground water sources, the system must monitor for water quality parameters both at representative entry points receiving treatment and representative entry points receiving no treatment. Prior to the start of any monitoring under this paragraph, the system shall provide to the State written information identifying the selected entry points and documentation, including information on seasonal variability, sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(d) *Monitoring after State specifies water quality parameter values for optimal corrosion control.* After the State specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment under §141.82(f), all large systems shall measure the applicable water quality parameters in accordance with paragraph (c) of this section and determine compliance with the requirements of §141.82(g) every six months with the first six-month period to begin on ~~the date~~ **either January 1 or July 1, whichever comes first, after the** State specifies the optimal values under §141.82(f). Any small or medium-size system shall conduct such monitoring during each six-month period specified in this paragraph in which the system exceeds the lead or copper action level. For any such small and medium-size system that is subject to a reduced monitoring frequency pursuant to §141.86(d)(4) at the time of the action level exceedance, the ~~end~~ **start** of the applicable six-month period under this paragraph shall coincide with the ~~end~~ **start** of the applicable monitoring period under §141.86(d)(4). Compliance with State-designated optimal water quality parameter values shall be determined as specified under §141.82(g).

(e) *Reduced monitoring.* (1) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month monitoring periods under paragraph (d) of this section shall continue monitoring at the entry point(s) to the distribution system as specified in paragraph (c)(2) of this section. Such system may collect two tap samples for applicable water quality parameters from the following reduced number of sites during each six-month monitoring period.

System size ( <i>number of people served</i> )	Reduced Number of sites for water quality parameters
>100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(2)(i) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under §141.82(f) during three consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in this paragraph (e)(1) of this section from every six months to annually. **This sampling begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of six-month monitoring occurs.** Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under §141.82(f), during three consecutive years of annual monitoring under this paragraph may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in paragraph (e)(1) from annually to every three years. **This sampling begins no later than the third calendar year following the end of the monitoring period in which the third consecutive year of monitoring occurs.**

(ii) A water system may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in paragraph (e)(1) of this section to every three 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 specified in §141.89 (a)(1)(ii), that its tap water copper level at the 90th percentile is less than or equal to 0.65 mg/L for copper in §141.80(c)(2), and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under §141.82(f). **Monitoring conducted every three years shall be done no later than every third calendar year.**

(3) A water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

(4) Any water system subject to the reduced monitoring frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State in §141.82(f) for more than nine days in any six-month period specified in §141.82(g) shall resume distribution system tap water sampling in accordance with the number and frequency requirements in paragraph (d) of this section. Such a system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in paragraph (e)(1) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of that paragraph and/or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (e)(2)(i) or (e)(2)(ii) of this section.

(f) *Additional monitoring by systems.* The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., determining concentrations of water quality parameters) under this section or §141.82.

### SUMMARY OF MONITORING REQUIREMENTS FOR WATER QUALITY PARAMETERS<sup>1</sup>

Monitoring Period	Parameters <sup>2</sup>	Location	Frequency
Initial monitoring.	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium, conductivity, temperature.	Taps and at entry point(s) to distribution system.	Every 6 months.
After installation of corrosion control.	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium <sup>4</sup> .	Taps.	Every 6 months.
	pH, alkalinity, dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual <sup>5</sup> .	Entry point(s) to distribution system <sup>6</sup> .	No less frequently than every two weeks.
After State specifies parameter values for optimal corrosion control.	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium <sup>4</sup> .	Taps.	Every 6 months.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual <sup>5</sup> .	Entry point(s) to distribution system <sup>6</sup> .	No less frequently than every two weeks.
Reduced monitoring.	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium <sup>4</sup> .	Taps.	Every 6 months, annually <sup>7</sup> or every 3 years <sup>8</sup> ; reduced number of sites.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual <sup>5</sup> .	Entry point(s) to distribution system <sup>6</sup> .	No less frequently than every two weeks.

<sup>1</sup>Table is for illustrative purposes; consult the text of this section for precise regulatory requirements.

<sup>2</sup>Small and medium-size systems have to monitor for water quality parameters only during monitoring periods in which the system exceeds the lead or copper action level.

<sup>3</sup>Orthophosphate must be measured only when an inhibitor containing a phosphate compound is used. Silica must be measured only when an inhibitor containing silicate compound is used.

<sup>4</sup>Calcium must be measured only when calcium carbonate stabilization is used as part of corrosion control.

<sup>5</sup>Inhibitor dosage rates and inhibitor residual concentrations (orthophosphate or silica) must be measured only when an inhibitor is used.

<sup>6</sup>Ground water systems may limit monitoring to representative locations throughout the system.

<sup>7</sup>Water systems may reduce frequency of monitoring for water quality parameters at the tap from every six months to annually if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of monitoring.

<sup>8</sup>Water systems may further reduce the frequency of monitoring for water quality parameters at the tap from annually to once every 3 years if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of annual monitoring. Water systems may accelerate to triennial monitoring for water quality parameters at the tap if they have maintained 90th percentile lead levels less than or equal to 0.005 mg/L, 90th percentile copper levels less than or equal to 0.65 mg/L, and the range of water quality parameters designated by the State under §141.82(f) as representing optimal corrosion control during two consecutive six-month monitoring periods.

### **§141.88 Monitoring requirements for lead and copper in source water.**

(a) *Sample location, collection methods, and number of samples.* (1) A water system that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with §141.86 shall collect lead and copper source water samples in accordance with the following requirements regarding sample location, number of samples, and collection methods:

(i) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The system shall take

one sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(ii) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

Note to paragraph (a)(1)(ii): For the purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources.

(iii) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(iv) The State may reduce the total number of samples which must be analyzed by allowing the use of compositing. Compositing of samples must 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 either:

(A) A follow-up sample shall be taken and analyzed within 14 days at each sampling point included in the composite; or

(B) If duplicates of or sufficient quantities from the original samples from each sampling point used in the composite are available, the system may use these instead of resampling.

(2) Where the results of sampling indicate an exceedance of maximum permissible source water levels established under §141.83(b)(4), the State may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point. If a State-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the State-specified maximum permissible levels. Any sample value below the detection limit shall be considered to be zero. Any value above the detection limit but below the PQL shall either be considered as the measured value or be considered one-half the PQL.

(b) *Monitoring frequency after system exceeds tap water action level.* Any system which exceeds the lead or copper action level at the tap shall collect one source water sample from each entry point to the distribution system ~~within no later than~~ six months after the ~~exceedance~~ end of the monitoring period during which the lead or copper action level was exceeded. For monitoring periods that are annual or less frequent, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or if the State has established an alternate monitoring period, the last day of that period.

(c) *Monitoring frequency after installation of source water treatment.* Any system which installs source water treatment pursuant to §141.83(a)(3) shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month monitoring periods by the deadline specified in §141.83(a)(4).

(d) *Monitoring frequency after State specifies maximum permissible source water levels or determines that source water treatment is not needed.* (1) A system shall monitor at the frequency specified below in cases where the State specifies maximum permissible source water levels under §141.83(b)(4) or determines that the system is not required to install source water treatment under §141.83(b)(2).

(i) A water system using only groundwater shall collect samples once during the three-year compliance period (as that term is defined in §141.2) in effect when the applicable State determination under paragraph (d)(1) of



this section is made. Such systems shall collect samples once during each subsequent compliance period.  
**Triennial samples shall be collected every third calendar year.**

(ii) A water system using surface water (or a combination of surface and ~~groundwater~~ ground water) shall collect samples once during each year, the first annual monitoring period to begin ~~on the date on~~ **during the year in** which the applicable State determination is made under paragraph (d)(1) of this section.

(2) A system is not required to conduct source water sampling for lead and/or copper if the system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under paragraph (d)(1)(i) or (ii) of this section.

(e) *Reduced monitoring frequency.* (1) A water system using only ground water may reduce the monitoring frequency for lead and copper in source water to once during each nine-year compliance cycle (as that term is defined in §141.2) **provided that the samples are collected no later than every ninth calendar year** and if the system meets one of the following criteria:

(i) 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 State in §141.83(b)(4) during at least three consecutive compliance periods under paragraph (d)(1) of this section; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive compliance periods in which sampling was conducted under paragraph (d)(1) of this section, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(2) A water system using surface water (or a combination of surface water and ground water) may reduce the monitoring frequency in paragraph (d)(1) of this section to once during each nine-year compliance cycle (as that term is defined in §141.2) **provided that the samples are collected no later than every ninth calendar year** and if the system meets one of the following criteria:

(i) 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 State in §141.83(b)(4) for at least three consecutive years; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive years, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(3) A water system that uses a new source of water is not eligible for reduced monitoring for lead and/or copper 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 State in §141.83(a)(5).

### **§141.89 Analytical methods.**

(a) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted with the methods in §141.23(k)(1).

(1) Analyses for alkalinity, calcium, conductivity, orthophosphate, pH, silica, and temperature may be performed by any person acceptable to the State. Analyses under this section for lead and copper shall only be conducted by laboratories that have been certified by EPA or the State. To obtain certification to conduct analyses for lead and copper, laboratories must:

(i) Analyze Performance Evaluation samples, which include lead and copper, provided by or acceptable to EPA or the State at least once a year by each method for which the laboratory desires certification; and

(ii) Achieve quantitative acceptance limits as follows:

(A) For lead:  $\pm 30$  percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.005 mg/L. The Practical Quantitation Level, or PQL for lead is 0.005 mg/L.

(B) For Copper:  $\pm 10$  percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.050 mg/L. The Practical Quantitation Level, or PQL for copper is 0.050 mg/L.

(iii) Achieve the method detection limit for lead of 0.001 mg/L according to the procedures in appendix B of part 136 of this title. This need only be accomplished if the laboratory will be processing source water composite samples under §141.88(a)(1)(~~iii~~)(iv).

(iv) Be currently certified by EPA or the State to perform analyses to the specifications described in paragraph (a)(~~2~~)(1) of this section.

(2) States have the authority to allow the use of previously collected monitoring data for purposes of monitoring, if the data were collected and analyzed in accordance with the requirements of this subpart.

(3) All lead and copper levels measured between the PQL and MDL must be either reported as measured or they can be reported as one-half the PQL specified for lead and copper in paragraph (a)(1)(ii) of this section. All levels below the lead and copper MDLs must be reported as zero.

(4) All copper levels measured between the PQL and the MDL must be either reported as measured or they can be reported as one-half the PQL (0.025 mg/L). All levels below the copper MDL must be reported as zero.

(b) [Reserved]

### **§141.90 Reporting requirements.**

All water systems shall report all of the following information to the State in accordance with this section.

(a) *Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring.* (1) Except as provided in paragraph (a)(1)(viii) of this section, a water system shall report the information specified below for all tap water samples specified in §141.86 and for all water quality parameter samples specified in §141.87 within the first 10 days following the end of each applicable monitoring period specified in §141.86 and §141.87 (i.e., every six months, annually, every 3 years, or every 9 years): **For monitoring periods with a duration less than six months, the end of the monitoring period is the last date samples can be collected during that period as specified in §§141.86 and 141.87.**

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under §141.86(a) (3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool;

(ii) Documentation for each tap water lead or copper sample for which the water system requests invalidation pursuant to §141.86(f)(2);

(iii) [Reserved];



(iv) The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period (calculated in accordance with §141.80(c)(3)), unless the State calculates the system's 90th percentile lead and copper levels under paragraph (h) of this section;

(v) With the exception of initial tap sampling conducted pursuant to §141.86(d)(1), the system shall designate any site which was not sampled during previous monitoring periods, and include an explanation of why sampling sites have changed;

(vi) The results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under §141.87(b)-(e);

(vii) The results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under §141.87(b)-(e);

(viii) A water system shall report the results of all water quality parameter samples collected under §141.87(c) through (f) during each six-month monitoring period specified in §141.87(d) within the first 10 days following the end of the monitoring period unless the State has specified a more frequent reporting requirement.

(2) For a non-transient non-community water system, or a community water system meeting the criteria of §§141.85(e)(b)(7)(i) and (ii), that does not have enough taps that can provide first-draw samples, the system must either:

(i) Provide written documentation to the State identifying standing times and locations for enough non-first-draw samples to make up its sampling pool under §141.86(b)(5) by the start of the first applicable monitoring period under §141.86(d) that commences after April 11, 2000, unless the State has waived prior State approval of non-first-draw sample sites selected by the system pursuant to §141.86(b)(5); or

(ii) If the State has waived prior approval of non-first-draw sample sites selected by the system, identify, in writing, each site that did not meet the six-hour minimum standing time and the length of standing time for that particular substitute sample collected pursuant to §141.86(b)(5) and include this information with the lead and copper tap sample results required to be submitted pursuant to paragraph (a)(1)(i) of this section.

(3) ~~No later than 60 days after~~ **At a time specified by the State, or if no specific time is designated by the State, then as early as possible prior to** the addition of a new source or any long-term change in water treatment, ~~unless the State requires earlier notification,~~ a water system deemed to have optimized corrosion control under §141.81(b)(3), a water system subject to reduced monitoring pursuant to §141.86(d)(4), or a water system subject to a monitoring waiver pursuant to §141.86(g), shall ~~send~~ **submit** written documentation to the State describing the change **or addition**. ~~In those instances where prior State approval of the treatment change or new source is not required, water systems are encouraged to provide the notification to the State beforehand to minimize the risk the treatment change or new source will adversely affect optimal corrosion control. The State must review and approve the addition of a new source or long-term change in treatment before it is implemented by the water system. Examples of long-term treatment changes include the addition of a new treatment process or modification of an existing treatment process. Examples of modifications include switching secondary disinfectants, switching coagulants (e.g., alum to ferric chloride), and switching corrosion inhibitor products (e.g., orthophosphate to blended phosphate). Long-term changes can include dose changes to existing chemicals if the system is planning long-term changes to its finished water pH or residual inhibitor concentration. Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.~~

(4) Any small system applying for a monitoring waiver under §141.86(g), or subject to a waiver granted pursuant to §141.86(g)(3), shall provide the following information to the State in writing by the specified deadline:

(i) By the start of the first applicable monitoring period in §141.86(d), any small water system applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of §§141.86(g)(1) and (2).

(ii) No later than nine years after the monitoring previously conducted pursuant to §141.86(g)(2) or §141.86(g)(4)(i), each small system desiring to maintain its monitoring waiver shall provide the information required by §§141.86(g)(4)(i) and (ii).

(iii) No later than 60 days after it becomes aware that it is no longer free of lead-containing and/or copper-containing material, as appropriate, each small system with a monitoring waiver shall provide written notification to the State, setting forth the circumstances resulting in the lead-containing and/or copper-containing materials being introduced into the system and what corrective action, if any, the system plans to remove these materials.

(iv) By October 10, 2000, any small system with a waiver granted prior to April 11, 2000 and that has not previously met the requirements of §141.86(g)(2) shall provide the information required by that paragraph.

(5) Each ground water system that limits water quality parameter monitoring to a subset of entry points under §141.87(c)(3) shall provide, by the commencement of such monitoring, written correspondence to the State that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(b) *Source water monitoring reporting requirements.* (1) A water system shall report the sampling results for all source water samples collected in accordance with §141.88 within the first 10 days following the end of each source water monitoring period (i.e., annually, per compliance period, per compliance cycle) specified in §141.88.

(2) With the exception of the first round of source water sampling conducted pursuant to §141.88(b), the system shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

(c) *Corrosion control treatment reporting requirements.* By the applicable dates under §141.81, systems shall report the following information:

(1) For systems demonstrating that they have already optimized corrosion control, information required in §141.81(b) (2) or (3).

(2) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under §141.82(a).

(3) For systems required to evaluate the effectiveness of corrosion control treatments under §141.82(c), the information required by that paragraph.

(4) For systems required to install optimal corrosion control designated by the State under §141.82(d), a letter certifying that the system has completed installing that treatment.

(d) *Source water treatment reporting requirements.* By the applicable dates in §141.83, systems shall provide the following information to the State:

(1) If required under §141.83(b)(1), their recommendation regarding source water treatment;

(2) For systems required to install source water treatment under §141.83(b)(2), a letter certifying that the system has completed installing the treatment designated by the State within 24 months after the State designated the treatment.

(e) *Lead service line replacement reporting requirements.* Systems shall report the following information to the State to demonstrate compliance with the requirements of §141.84:

(1) ~~Within~~ **No later than** 12 months after **the end of a monitoring period in which** a system exceeds the lead action level in sampling referred to in §141.84(a), the system ~~shall demonstrate in writing~~ **must submit written documentation** to the State ~~that it has conducted a~~ **of the material evaluation, including the evaluation conducted as required** in §141.86(a), ~~to~~ identify the initial number of lead service lines in its distribution system **at the time the system exceeds the lead action level**, and ~~shall provide the State with~~ the system's schedule for **annually** replacing ~~annually~~ at least 7 percent of the initial number of lead service lines in its distribution system.

(2) ~~Within~~ **No later than** 12 months after **the end of a monitoring period in which** a system exceeds the lead action level in sampling referred to in §141.84(a), and every 12 months thereafter, the system shall demonstrate to the State in writing that the system has either:

(i) Replaced in the previous 12 months at least 7 percent of the initial lead service lines (or a greater number of lines specified by the State under §141.84(e)) in its distribution system, or

(ii) Conducted sampling which demonstrates that the lead concentration in all service line samples from an individual line(s), taken pursuant to §141.86(b)(3), is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in §141.84(c) shall equal at least 7 percent of the initial number of lead lines identified under paragraph ~~(a)~~ **(e)(1)** of this section (or the percentage specified by the State under §141.84(e)).

(3) The annual letter submitted to the State under paragraph (e)(2) of this section shall contain the following information:

(i) The number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule;

(ii) The number and location of each lead service line replaced during the previous year of the system's replacement schedule;

(iii) If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.

(4) Any system which collects lead service line samples following partial lead service line replacement required by §141.84 shall report the results to the State within the first ten days of the month following the month in which the system receives the laboratory results, or as specified by the State. States, at their discretion may eliminate this requirement to report these monitoring results. Systems shall also report any additional information as specified by the State, and in a time and manner prescribed by the State, to verify that all partial lead service line replacement activities have taken place.

(f) *Public education program reporting requirements.* (1) Any water system that is subject to the public education requirements in §141.85 shall, within ten days after the end of each period in which the system is required to perform public education tasks in accordance with §141.85~~(e)~~ **(b)**, send written documentation to the State that contains:

(i) A demonstration that the system has delivered the public education materials that meet the content requirements in §141.85(a) ~~and (b)~~ and the delivery requirements in §141.85~~(e)~~ **(b)**; and

(ii) A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the system delivered public education materials during the period in which the system was required to perform public education tasks.

(2) Unless required by the State, a system that previously has submitted the information required by paragraph (f)(1)(ii) of this section need not resubmit the information required by paragraph (f)(1)(ii) of this section, as long as 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.

(3) No later than 3 months following the end of the monitoring period, each system must mail a sample copy of the consumer notification of tap results to the State along with a certification that the notification has been distributed in a manner consistent with the requirements of §141.85(d).

(g) *Reporting of additional monitoring data.* Any system which collects sampling data in addition to that required by this subpart shall report the results to the State within the first ten days following the end of the applicable monitoring period under §§141.86, 141.87 and 141.88 during which the samples are collected.

(h) *Reporting of 90th percentile lead and copper concentrations where the State calculates a system's 90th percentile concentrations.* A water system is not required to report the 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period, as required by paragraph (a)(1)(iv) of this section if:

(1) The State has previously notified the water system that it will calculate the water system's 90th percentile lead and copper concentrations, based on the lead and copper tap results submitted pursuant to paragraph (h)(2)(i) of this section, and has specified a date before the end of the applicable monitoring period by which the system must provide the results of lead and copper tap water samples;

(2) The system has provided the following information to the State by the date specified in paragraph (h)(1) of this section:

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under §141.86(a)(3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool, pursuant to paragraph (a)(1)(i) of this section; and

(ii) An identification of sampling sites utilized during the current monitoring period that were not sampled during previous monitoring periods, and an explanation why sampling sites have changed; and

(3) The State has provided the results of the 90th percentile lead and copper calculations, in writing, to the water system before the end of the monitoring period.

### **§141.91 Recordkeeping requirements.**

Any system subject to the requirements of this subpart shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, State determinations, and any other information required by §141.81 through §141.88. Each water system shall retain the records required by this section for no fewer than 12 years.

### **§141.154 Required additional health information.**

***Note:*** Only §141.154(d) has been revised by the Short-Term Revisions and is included below.

(d) Systems which detect lead above the action level in more than 5%, and up to and including 10%, of homes sampled **Every report must include the following lead-specific information:**

(1) ~~Must include a~~ **A short informational statement about the special impact of lead in drinking water and its effects on children using language such as: Infants and young children are typically more vulnerable to lead in drinking water than the general population. The statement must include the following information:**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. ~~It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).~~

(2) ~~A system may~~ **May** write its own educational statement, but only in consultation with the ~~State Privacy Agency~~ **State Privacy Agency**.

# PART 142 -- NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION

## Subpart B -- Primary Enforcement Responsibility

### §142.14 Records kept by States.

**Note:** Only §142.14(d)(8) has been revised by the Short-Term Revisions and is included below.

(d) Each State which has primary enforcement responsibility shall retain, for not less than 12 years, files which shall include for each such public water systems in the State:

(8) Records of the currently applicable or most recent State determinations, including all supporting information and an explanation of the technical basis for each decision, made under the following provisions of 40 CFR, part 141, subpart I for the control of lead and copper:

(i) Section 141.81(b) -- for any water system deemed to be optimized under §141.81(b)(1) or (b)(3) of this chapter, any conditions imposed by the State on specific water systems to ensure the continued operation and maintenance of corrosion control treatment in place;

(ii) Section 141.82(b) -- decisions to require a water system to conduct corrosion control treatment studies;

(iii) Section 141.82(d) -- designations of optimal corrosion control treatment;

(iv) Section 141.82(f) -- designations of optimal water quality parameters;

(v) Section 141.82(h) -- decisions to modify a public water system's optimal corrosion control treatment or water quality parameters;

(vi) Section 141.83(b)(2) -- determinations of source water treatment;

(vii) Section 141.83(b)(4) -- designations of maximum permissible concentrations of lead and copper in source water;

(viii) Section 141.84(e) -- determinations establishing shorter lead service line replacement schedules under §141.84;

(ix) Sections 141.81(b)(3)(iii), 141.86(d)(4)(vii), and 141.86(g)(4)(iii) -- determinations of additional monitoring requirements and/or other actions required to maintain optimal corrosion control by systems monitoring for lead and copper at the tap less frequently than once every six months that change treatment or add a new source of water;

(x) Section 141.85 -- system-specific decisions regarding the content of written public education materials and/or the distribution of these materials;

(xi) Section 141.86(b)(5) -- system-specific determinations regarding use of non-first-draw samples at non-transient non-community water systems, and community water systems meeting the criteria of §§141.85(e)(b)(7)(i) and (ii) of this chapter, that operate 24 hours a day;

(xii) Section 141.86(c) -- system-specific designations of sampling locations for systems subject to reduced monitoring;

(xiii) Section 141.86(d)(iv)(A) -- system-specific determinations pertaining to alternative sample collection periods for systems subject to reduced monitoring;

(xiv) Section 141.86(g) -- determinations of small system monitoring waivers, waiver recertifications, and waiver revocations;

(xv) Section 141.87(c)(3) -- determinations regarding representative entry point locations at ground water systems;

(xvi) Section 141.90(e)(4) -- system-specific determinations regarding the submission of information to demonstrate compliance with partial lead service line replacement requirements; and

(xvii) Section 141.90(f) -- system-specific decisions regarding the resubmission of detailed documentation demonstrating completion of public education requirements.

(9) Records of reports and any other information submitted by PWSs under §141.90 of this chapter, including records of any 90th percentile values calculated by the State under §141.90(h) of this chapter.

(10) Records of State activities, and the results thereof, to:

(i) Verify compliance with State determinations issued under §§141.82(f) of this chapter, 141.82(h) of this chapter, 141.83(b)(2) of this chapter, and 141.83(b)(4) of this chapter;

(ii) Verify compliance with the requirements related to partial lead service line replacement under §141.84(d) of this chapter and compliance with lead service line replacement schedules under §141.84(e) of this chapter; and

(iii) Invalidate tap water lead and copper samples under §141.86(f) of this chapter.

(11) Records of each system's currently applicable or most recently designated monitoring requirements. If, for the records identified in paragraphs (d)(8)(i) through (d)(8)(xvii) of this section, no change is made to State determinations during a 12-year retention period, the State shall retain the record until a new decision, determination, or designation has been issued.

### **§142.15 Reports by States.**

***Note:*** §142.15(c)(4) pertains specifically to the LCR. It was not revised by the Short-Term Revisions but is included below.

Each State which has primary enforcement responsibility shall submit to the Administrator the following information:

(c)(4) States shall report quarterly, in a format and on a schedule prescribed by the Administrator, the following information related to each system's compliance with the treatment techniques for lead and copper under 40 CFR part 141, subpart I during the preceding calendar quarter. Specifically, States shall report as follows:

(i) For any reports provided prior to May 15, 2000, States shall report the name and PWS identification number:

(A) Each public water system which exceeded the lead and copper action levels and the date upon which the exceedance occurred;

(B) Each public water system required to complete the corrosion control evaluation specified in §141.82(c) and the date the State received the results of the evaluations from each system;



(C) Each public water system for which the State has designated optimal corrosion control treatment under §141.82(d), the date of the determination, and each system that completed installation of treatment as certified under §141.90(c)(3);

(D) Each public water system for which the State has designated optimal water quality parameters under §141.82(f) and the date of the determination;

(E) Each public water system which the State has required to install source water treatment under §141.83(b)(2), the date of the determination, and each system that completed installation of treatment as certified under §141.90(d)(2);

(F) Each public water system for which the State has specified maximum permissible source water levels under §141.83(b)(4); and

(G) Each public water system required to begin replacing lead service lines as specified in §141.84, each public water system for which the State has established a replacement schedule under §141.84(f), and each system reporting compliance with its replacement schedule under §141.90(e)(2).

(ii) For any reports provided after May 14, 2000 and before January 14, 2002, States may report in accordance with either paragraph (c)(4)(i) or (c)(4)(iii) of this section.

(iii) For all reports submitted on or after January 14, 2002, States shall report the PWS identification number of each public water system identified in paragraphs (c)(4)(iii)(A) through (F) of this section.

(A) For each large and medium-size public water system, all 90th percentile lead levels calculated during each monitoring period specified in §141.86 of this chapter, and the first and last day of the monitoring period for which the 90th percentile lead level was calculated;

(B) For each small public water system, the 90th percentile lead level calculated during each monitoring period in which the system exceeds the lead action level, and the first and last day of each monitoring period in which an exceedance occurred;

(C) For each public water system (regardless of size), the 90th percentile copper level calculated during each monitoring period in which the system exceeds the copper action level, and the first and last day of each monitoring period in which an exceedance occurred;

(D) For each public water system for which the State has designated optimal water quality parameters under §141.82(f) of this chapter, or which the State has deemed to have optimized corrosion control under §141.81(b)(1) or (b)(3) of this chapter, the date of the determination and the paragraph(s) under which the State made its determination;

(E) For each public water system required to begin replacing lead service lines as specified in §141.84 of this chapter and the date each system must begin replacement; and

(F) For each public water system that has implemented optimal corrosion control, completed applicable source water treatment requirements pursuant to §141.83 of this chapter and/or completed lead service line replacement requirements pursuant to §141.84 of this chapter, and the date of the State's determination that these requirements have been met. The date reported shall be the latest of the following events:

(f) The date the State designates optimal water quality parameters under §141.82(f) of this chapter or deems the system to have optimized corrosion control pursuant to §141.81(b)(1) or (b)(3) of this chapter;



(2) For systems triggered into source water treatment, the date the State designates maximum permissible source water levels under §141.83(b)(4) of this chapter or determines pursuant to §141.83(b)(2) of this chapter that source water treatment is not required; or

(3) For systems triggered into lead service line replacement, the date the system completes lead service line replacement or becomes eligible to cease lead service line replacement pursuant to §141.84(f) of this chapter.

## **§142.16 Special Primacy Requirements.**

***Note:*** §142.16(d) was not revised by the Short-Term Revisions but is included below.

(d) *Requirements for States to adopt 40 CFR part 141, subpart I—Control of Lead and Copper.* An application for approval of a State program revision which adopts the requirements specified in 40 CFR part 141, subpart I, must contain (in addition to the general primacy requirements enumerated elsewhere in this part, including the requirement that State regulations be at least as stringent as the federal requirements) a description of how the State will accomplish the following program requirements:

(1) Section 141.82—State designation of optimal corrosion control.

(i) Sections 141.82(d), 141.82(f), and 141.82(h)—Designating optimal corrosion control treatment methods, optimal water quality parameters, and modifications thereto.

(ii) Section 141.82(g)—Designating an alternative approach for aggregating multiple measurements collected during the same day for a water quality parameter at a sampling location, if the State elects to adopt a formula other than the one specified in §141.82(g)(1) of this chapter.

(2) Sections 141.83(b)(2) and 141.83(b)(4)—Designating source water treatment methods, maximum permissible source water levels for lead and copper and modifications thereto.

(3) Section 141.90(e)—Verifying compliance with lead service line replacement schedules and completion of all partial lead service line replacement activities.

(4) Section 141.86(d)(4)(iv)(A)—Designating an alternative period for sample collection for community water systems subject to reduced monitoring.

(e) An application for approval of a State program revision which adopts the requirements specified in §§141.11, 141.23, 141.24, 141.32, 141.61, and 141.62 for a newly regulated contaminant must contain the following (in addition to the general primacy requirements enumerated elsewhere in this part, including the requirement that State regulations be at least as stringent as the Federal requirements):

(1) If a State chooses to issue waivers from the monitoring requirements in §§141.23 and 141.24, the State shall describe the procedures and criteria which it will use to review waiver applications and issue waiver determinations.

(i) The procedures for each contaminant or class of contaminants shall include a description of:

(A) The waiver application requirements;

(B) The State review process for “use” waivers and for “susceptibility” waivers; and

(C) The State decision criteria, including the factors that will be considered in deciding to grant or deny waivers. The decision criteria must include the factors specified in §§141.24(f)(8) and 141.24(h)(6).

(ii) The State must specify the monitoring data and other documentation required to demonstrate that the contaminant is eligible for a “use” and/or “susceptibility” waiver.

(2) A monitoring plan for the initial monitoring period by which the State will assure all systems complete the required initial monitoring within the regulatory deadlines.

Note: States may update their monitoring plan submitted under the Phase II Rule or simply note in their application that they will use the same monitoring plan for the Phase V Rule.

(i) The initial monitoring plan must describe how systems will be scheduled during the initial monitoring period and demonstrate that the analytical workload on certified laboratories for each of the three years has been taken into account, to assure that the State's plan will result in a high degree of monitoring compliance and that as a result there is a high probability of compliance and will be updated as necessary.

(ii) The State must demonstrate that the initial monitoring plan is enforceable under State law.



# **APPENDIX C**

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## **LEAD AND COPPER RULE FACT SHEETS**



# Fact Sheet on the Revisions to the Regulations Controlling Lead in Drinking Water

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**EPA-815-F-07-03**  
**September 2007**

EPA is promulgating a rule that makes several targeted regulatory revisions to the existing national primary drinking water regulations (NPDWRs) for lead and copper. The purpose of the Lead and Copper Rule (LCR) is to protect public water system consumers from exposure to lead and copper in drinking water. The revisions to the LCR will:

- enhance the implementation of the LCR in the areas of monitoring, treatment, customer awareness, lead service line replacement; and
- improve compliance with the public education requirements of the LCR and ensure drinking water consumers receive meaningful, timely, and useful information needed to help them limit their exposure to lead in drinking water.

## What are the basic requirements of the Lead and Copper Rule?

The LCR has four basic requirements:

1. require water suppliers to optimize their treatment system to control corrosion in customer's plumbing;
2. determine tap water levels of lead and copper for customers who have lead service lines or lead-based solder in their plumbing system;
3. rule out the source water as a source of significant lead levels; and,
4. if lead action levels are exceeded, require the suppliers to educate their customers about lead and suggest actions they can take to reduce their exposure to lead through public notices and public education programs.

If a water system, after installing and optimizing corrosion control treatment, continues to fail to meet the lead action level, it must begin replacing the lead service lines under its ownership.

## Who will be affected by these revisions to the Lead and Copper Rule?

The entities potentially affected by this final rule are public water systems that are classified as community water systems (e.g., systems that provide water to year-round residents in places like homes or apartment buildings) or non-transient, non-community water systems (e.g., systems that provide water to people in locations such as schools, office buildings, restaurants, etc.); State Primacy Agencies; and local and tribal governments.

## How would these revisions change monitoring requirements?

The rule addresses confusion about sample collection by clarifying language that speaks to the number of samples required and the number of sites from which samples should be collected. The rule also modifies definitions for monitoring and compliance periods to make it clear that all samples must be taken within the same calendar year. Finally, the rule adds a new reduced monitoring requirement, which prevents water systems above the lead action level to remain on a reduced monitoring schedule.

## How would these revisions change requirements for water treatment?

The new rule requires water systems to provide advanced notification and gain the approval of the primacy agency for intended changes in treatment or source water that could increase corrosion of lead. The primacy agency must approve the planned changes using a process that will allow regulators and water systems to take as much time as needed to consult about potential problems.

## How do these revisions change requirements related to customer awareness?

While many water utilities indicate that they provide the results of monitoring to customers, there is no requirement in the regulations for them to do so. All utilities must now provide a notification of tap water monitoring results for lead to owners and/or occupants of homes and buildings who consume water from the taps that are part of the utility's sampling program.

## How do these revisions change lead service line replacement requirements?

The current regulations allow utilities to consider lead service lines that test below the action level as “replaced” for the purposes of compliance. The new rule adds a requirement for utilities to reconsider previously “tested-out” lines when resuming lead service line replacement programs. This provision only applies to systems that had:

1. initiated a lead service line replacement program;
2. complied with the lead action level for two consecutive monitoring periods and discontinued the lead service line replacement program; and
3. subsequently were re-triggered into lead service line replacement.

All previously “tested-out” lines would then have to be tested again or added back into the sampling pool and considered for replacement.

## How do these revisions change the public education requirements?

EPA requires water systems to deliver public education materials after a lead action level exceedance. The new rule changes the content of the message to be provided to consumers, changes how the materials are delivered to consumers, and the timeframe in which materials must be delivered. Also, there are changes to the delivery requirements which include additional organizations that systems must partner with to disseminate the message to at-risk populations as well as changes in the ways information is disseminated to ensure water systems reach consumers when there is an action level exceedance. The new rule also requires educational statements about lead in drinking water to be included in all Consumer Confidence Reports. Many of the changes to the public education requirements were based on recommendations from the National Drinking Water Advisory Council.

For more information:

- [Consumer Confidence Reports Web site](#)
- [National Drinking Water Advisory Council Web site](#)



## How much will these revisions cost water suppliers and consumers?

The total annual direct costs to water systems are estimated between \$5.4 and \$5.7 million. The majority of these costs to water systems are from the monitoring and public education requirements of the revisions. For primacy agencies, the annual direct costs are estimated between \$471,000 and \$657,000. The majority of the costs to primacy agencies arise from the review and approval requirement for treatment changes included in the revisions. The initial one time costs for water system and State personnel to familiarize themselves with the rule changes and begin implementation are approximately \$11 million for water systems and \$1.7 million for States.

## How did EPA identify the changes to the LCR?

In early 2004, EPA began a wide-range review of implementation of the Lead and Copper Rule to determine if there was a national problem related to elevated levels of lead in drinking water. The review identified several areas in which there was confusion about implementation in the existing regulations. As part of its national review, EPA also held expert workshops to discuss the effectiveness of the regulations. After reviewing findings from the workshops and implementation review, EPA released a Drinking Water Lead Reduction Plan in March 2005. This plan outlined short-term and long-term goals for improving implementation of the Lead and Copper Rule, including several targeted changes to the regulations, which are now being promulgated.

## What are the longer-term goals of the Drinking Water Lead Reduction Plan?

EPA identified a number of issues that will be reviewed as part of potentially more comprehensive revisions to the rule. The issues require additional data collection, research, analysis, and stakeholder involvement to support decisions. The issues include, but are not limited to, requirements for consecutive systems, and broader revisions to monitoring and lead service line replacement requirements.

- For more information on the Drinking Water Lead Reduction Plan [visit the national review page](#).

## How can I get more information?

For additional information about the rule, contact:

- Jeffrey Kempic (phone (202) 564-4880; [e-mail: kempic.jeffrey@epa.gov](mailto:kempic.jeffrey@epa.gov)), or
- Eric Burneson (phone: (202) 564-5250; [e-mail: burneson.eric@epa.gov](mailto:burneson.eric@epa.gov)).



# Lead and Copper Rule: A Quick Reference Guide

## Overview of the Rule

Title	Lead and Copper Rule (LCR) <sup>1</sup> , 56 FR 26460 - 26564, June 7, 1991
Purpose	Protect public health by minimizing lead (Pb) and copper (Cu) levels in drinking water, primarily by reducing water corrosivity. Pb and Cu enter drinking water mainly from corrosion of Pb and Cu containing plumbing materials.
General Description	Establishes action level (AL) of 0.015 mg/L for Pb and 1.3 mg/L for Cu based on 90 <sup>th</sup> percentile level of tap water samples. An AL exceedance is not a violation but can trigger other requirements that include water quality parameter (WQP) monitoring, corrosion control treatment (CCT), source water monitoring/treatment, public education, and lead service line replacement (LSLR).
Utilities Covered	All community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) are subject to the LCR requirements.

## Public Health Benefits

Implementation of the LCR has resulted in:	<ul style="list-style-type: none"> <li>Reduction in risk of exposure to Pb that can cause damage to brain, red blood cells, and kidneys, especially for young children and pregnant women.</li> <li>Reduction in risk of exposure to Cu that can cause stomach and intestinal distress, liver or kidney damage, and complications of Wilson's disease in genetically predisposed people.</li> </ul>
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## Major Monitoring Provisions

### Lead and Copper Tap

Applicability	► All CWSs and NTNCWSs.
Standard	<ul style="list-style-type: none"> <li>CWSs and NTNCWSs must collect first-draw samples at taps in homes/buildings that are at high risk of Pb/Cu contamination as identified in 40 CFR 141.86(a).</li> <li>Number of samples is based on system size (see Table 1).</li> <li>Systems must conduct monitoring every 6 months unless they qualify for reduced monitoring.</li> </ul>
Reduced	► See Table 1 for sample number and Table 2 for criteria.

### Water Quality Parameter (WQP)

Applicability	<ul style="list-style-type: none"> <li>Systems serving &gt; 50,000 people.</li> <li>Systems serving ≤ 50,000 during monitoring periods in which either AL is exceeded.</li> </ul>
Standard	<ul style="list-style-type: none"> <li>WQP samples at taps are collected every 6 months.</li> <li>WQPs at entry points to distribution system (EPTDS) are collected every 6 months prior to CCT installation, then every 2 weeks.</li> </ul>
Reduced	► See Table 1 for sample number and page 2 for criteria. Does not apply to EPTDS WQP monitoring.

Table 1: Lead and Copper Tap and WQP Tap Monitoring

Size Category	System Size	Number of Pb/Cu Tap Sample Sites <sup>2</sup>		Number of WQP Tap Sample Sites <sup>3</sup>	
		Standard	Reduced	Standard	Reduced
Large	> 100K	100	50	25	10
	50,001 - 100K	60	30	10	7
Medium	10,001 - 50K	60	30	10	7
	3,301 - 10K	40	20	3	3
Small	501 - 3,300	20	10	2	2
	101 - 500	10	5	1	1
	≤ 100	5	5	1	1

<sup>2</sup> With written State approval, PWSs can collect < 5 samples if all taps used for human consumption are sampled.

<sup>3</sup> Two WQP tap samples are collected at each sampling site.

Table 2: Criteria for Reduced Pb/Cu Tap Monitoring

Annual	<ol style="list-style-type: none"> <li>PWS serves ≤ 50,000 people and is ≤ both ALs for 2 consecutive 6-month monitoring periods; or</li> <li>Any PWS that meets optimal WQPs (OWQPs) and is ≤ Pb AL for 2 consecutive 6-month monitoring periods.</li> </ol>
Triennial	<ol style="list-style-type: none"> <li>PWS serves ≤ 50,000 people and is ≤ both ALs for 3 consecutive years of monitoring; or</li> <li>Any PWS that meets OWQP specifications and is ≤ Pb AL for 3 consecutive years of monitoring; or</li> <li>Any PWS with 90<sup>th</sup> percentile Pb and Cu levels ≤ 0.005 mg/L and ≤ 0.65 mg/L, respectively, for 2 consecutive 6-month monitoring periods (i.e., accelerated reduced Pb/Cu tap monitoring).</li> </ol>
Every 9 years	PWS serves ≤ 3,300 people and meets monitoring waiver criteria found at 40 CFR 141.86(g).

## Lead Consumer Notice

Within 30 days of learning the results, all systems must provide individual Pb tap results to people who receive water from sites that were sampled, regardless of whether the results exceed the Pb AL, as required by 40 CFR 141.85(d).

## Consumer Confidence Report (CCR)

All CWSs, irrespective of their lead levels, must provide an educational statement about lead in drinking water in their CCRs as required by 40 CFR 141.154. Must be in 2008 CCR (due July 1, 2009) if EPA is Primacy Agency, State adopts the rule by reference automatically, or adopts during 2008. Otherwise, this statement is required in the 2009 CCR (due July 1, 2010).

<sup>1</sup> The June 1991 LCR was revised with the following Technical Amendments: 56 FR 32112, July 15, 1991; 57 FR 28785, June 29, 1992; 59 FR 33860, June 30, 1994.

It was subsequently revised by: the LCR Minor Revisions, 65 FR 1950, January 12, 2000; and the LCR Short-Term Revisions, 72 FR 57782, October 10, 2007.



## Treatment Technique and Sampling Requirements if the AL is Exceeded<sup>4</sup>

<sup>4</sup> Based on 90<sup>th</sup> percentile level. Multiply number of valid samples by 0.9 (e.g., 10 samples x 0.9 = 9; thus, use 9<sup>th</sup> highest Pb and Cu test result to compare to AL). For 5 samples, average 4<sup>th</sup> and 5<sup>th</sup> highest results. For < 5 samples, use highest result.

### Water Quality Parameter (WQP)

Applicability	Refer to page 1.
Parameters	<ul style="list-style-type: none"> <li>pH, alkalinity, calcium (<i>initial only, unless calcium carbonate stabilization is used</i>), conductivity (<i>initial monitoring only</i>), orthophosphate (<i>if inhibitor is phosphate-based</i>); silica (<i>if inhibitor is silicate-based</i>), and temperature (<i>initial monitoring only</i>).</li> </ul>
Frequency	<ul style="list-style-type: none"> <li>Systems installing CCT, must conduct follow-up monitoring for 2 consecutive 6-month periods.</li> <li>WQP tap monitoring is conducted every 6 months, EPTDS monitoring increases to every 2 weeks.</li> <li>After follow-up monitoring, State sets OWQP specifications that define optimal CCT.</li> </ul>
Reduced Tap Monitoring	<ul style="list-style-type: none"> <li>Collect reduced number of sampling sites (see Table 1) if meet OWQPs for 2 consecutive 6-month periods.</li> <li>Collect reduced number of sampling sites at reduced frequency if meet OWQPs for: <ul style="list-style-type: none"> <li>6 consecutive 6-month monitoring periods can monitor annually;</li> <li>3 consecutive years of annual monitoring can monitor triennially.</li> </ul> </li> </ul>

### Public Education (PE)

Applicability	<ul style="list-style-type: none"> <li>Systems that exceed the Pb AL (<i>not required if only the Cu AL is exceeded</i>).</li> </ul>
Purpose	<ul style="list-style-type: none"> <li>Educates consumers about lead health effects, sources, and steps to minimize exposure.</li> </ul>
Delivery Method	<ul style="list-style-type: none"> <li>CWSs: deliver materials to bill-paying customers and post lead information on water bills, work in concert with local health agencies to reach at-risk populations (children, pregnant woman), deliver to other organizations serving "at-risk" populations, provide press releases, include new outreach activities from list in 40 CFR 141.85(a)(2)(vi), and post to Web site (CWSs serving &gt; 100,000 only).</li> <li>NTNCWSs: posting and distribution to all consumers (can be electronic with State permission). Can apply to CWSs such as hospitals and prisons where population cannot make improvements</li> </ul>
Timing	<ul style="list-style-type: none"> <li>Within 60 days <i>after end of monitoring period</i> in which Pb AL was exceeded if not already delivering PE.<sup>5</sup></li> <li>Repeat annually except: water bill inserts - quarterly; press releases - 2x/year, and Web posting - continuous.</li> <li>Can discontinue whenever ≤ Pb AL but must recommence if subsequently exceed Pb AL.</li> </ul>

<sup>5</sup> State may allow extension in some situations. Also, State may require approval of message content prior to delivery.

### Source Water Monitoring and Source Water Treatment (SOWT)

Applicability	<ul style="list-style-type: none"> <li>Systems that exceed Pb or Cu AL.</li> </ul>
Purpose	<ul style="list-style-type: none"> <li>Determine contribution from source water to total tap water Pb and Cu levels and need for SOWT.</li> </ul>
Timing	<ul style="list-style-type: none"> <li>One set of samples at each EPTDS is due within 6 months of first AL exceedance.</li> <li>System has 24 months to install any required SOWT.</li> <li>State sets maximum permissible levels (MPLs) for Pb and Cu in source water based on initial and follow-up source water monitoring.</li> </ul>
Standard	<ul style="list-style-type: none"> <li>Ground water PWSs monitor once during 3-year compliance periods; surface water PWSs monitor annually.</li> </ul>
Reduced	<ul style="list-style-type: none"> <li>Monitor every 9 years if MPLs are not exceeded during 3 consecutive compliance periods for ground water PWSs or 3 consecutive years for surface water PWSs.</li> </ul>

### Corrosion Control Treatment (CCT)

Applicability	<ul style="list-style-type: none"> <li>All large systems except those meeting requirements of 40 CFR 141.81(b)(2) or (b)(3).</li> <li>Medium and small systems that exceed either AL; may stop CCT steps if ≤ both ALs for 2 consecutive 6-month periods but must recommence CCT if subsequently exceed either AL.</li> </ul>
Study	<ul style="list-style-type: none"> <li>All large systems except as noted above.</li> <li>If State requires study for small or medium systems, it must be completed within 18 months.</li> </ul>
Treatment	<ul style="list-style-type: none"> <li>Once State determines type of CCT to be installed, PWS has 24 months to install.</li> <li>Systems installing CCT must conduct 2 consecutive 6 months of follow-up tap and WQP monitoring.</li> </ul>
OWQPs	<ul style="list-style-type: none"> <li>After follow-up Pb/Cu tap and WQP monitoring, State sets OWQPs. <i>Refer to WQP section above.</i></li> </ul>

### Lead Service Line Replacement (LSLR)

Applicability	<ul style="list-style-type: none"> <li>Systems that continue to exceed the Pb AL after installing CCT and/or SOWT.</li> <li>Can discontinue LSLR whenever ≤ Pb AL in tap samples for 2 consecutive 6-month monitoring periods; must recommence if subsequently exceed.</li> </ul>
Monitoring	<ul style="list-style-type: none"> <li>Optional: Sample from LSL to determine if line must be replaced. If all samples are ≤ 0.015 mg/L, line is considered "replaced through testing"; must reconsider these lines if Pb AL is subsequently exceeded.</li> <li>Required: Sample from any LSLs not completely replaced to determine impact on Pb levels.</li> </ul>
Replacement	<ul style="list-style-type: none"> <li>Must replace at least 7% of LSLs annually; State can require accelerated schedule.</li> <li>If only portion of LSL is replaced, PWS must: <ul style="list-style-type: none"> <li>Notify customers at least 45 days prior to replacement about potential for increased Pb levels.</li> <li>Collect samples within 72 hours of replacement and provide results within 3 days of receipt.</li> </ul> </li> </ul>

#### For additional information on the LCR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA Web site at [www.epa.gov/safewater/lcrmr](http://www.epa.gov/safewater/lcrmr); or contact your State drinking water representative.

# **APPENDIX D**

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## **LEAD CONSUMER NOTICE CERTIFICATION FORM**



## Appendix D–Lead Consumer Notice Certification Form (suggested format)

System name: \_\_\_\_\_

PWSID no: \_\_\_\_\_

Monitoring period to which the notice applies (e.g., June – Sept. 2009): \_\_\_\_\_

Date(s) results were received from laboratory: \_\_\_\_\_

Date(s) results were provided to consumers: \_\_\_\_\_

The water system named above hereby certifies that its lead consumer notice has been provided to each person it serves at the specific sampling site from which the sample was tested. The water system also certifies that these results and the following information were provided to such persons within 30 days of receiving the test results from the laboratory:

\_\_\_\_ Individual tap results from lead tap water monitoring carried out under the requirements of §141.86.

\_\_\_\_ An explanation of the health effects of lead.

\_\_\_\_ Steps that consumers can take to reduce exposure to lead in drinking water.

\_\_\_\_ Contact information for your water utility.

\_\_\_\_ The maximum contaminant level goals and action levels for lead, and the definitions of these two terms from §141.153(c).

### Certified by:

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone # \_\_\_\_\_ Date \_\_\_\_\_

\*\*\*You are not required by EPA rules to report the following information, but you may want to provide it to your State. Check all items that apply. \*\*\*

\_\_\_\_ Notice was distributed by mail or other direct delivery. Specify other direct delivery methods:

\_\_\_\_\_  
\_\_\_\_\_.

\_\_\_\_ electronic mail.

\_\_\_\_ posting the notice on the Internet at www.\_\_\_\_\_.

\_\_\_\_ posting the notice in public places (attach a list of locations).

\_\_\_\_ delivery of multiple copies to single bill addresses serving several persons such as: apartments, businesses, and large private employers.

\_\_\_\_ other methods.





# **APPENDIX E**

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## **DATA ENTRY INSTRUCTIONS WITH EXAMPLES**



# SAFE DRINKING WATER INFORMATION SYSTEM (SDWIS) REPORTING UNDER THE LCRST

SDWIS/FED (Safe Drinking Water Information System/Federal version) is an EPA national database storing routine information about the nation's drinking water. Designed to replace the system known as FRDS (Federal Reporting Data System), SDWIS/FED stores the information EPA needs to monitor approximately 175,000 public water systems.

States supervise the drinking water systems within their jurisdictions to ensure that each public water system meets state and EPA standards for safe drinking water. The Safe Drinking Water Act (SDWA) requires states to report drinking water information periodically to EPA; this information is maintained in SDWIS/FED.

## A. Federally Reported Violations

Under SDWIS/FED reporting, states only report when violations occur. In the interest of reducing the reporting burden on states, EPA has limited the number and type of violations to be reported to SDWIS/FED. However, PWSs must still keep records and report all required information to the state. Any violation of the rule, whether included in the accompanying table or not, is a basis for a state or federal enforcement action.

Exhibit E-1 provides an explanation of the violation type code, contaminant code, and definition for a lead consumer notice violation. An example of how to report this violation to EPA's Safe Drinking Water Information Systems/Operational Data System (SDWIS/ODS) follows this table.

Exhibit E-1. Consumer Notification Violation			
Violation Type Code	Contaminant Code	Violation Name	Definition
66	5000	Lead Consumer Notice	<b>Failure to meet any of the following:</b> <ul style="list-style-type: none"><li>• Provide notice of lead results to individuals served by taps used from lead and copper tap monitoring in accordance with §141.85(d)(1);</li><li>• Meet the timing requirements for providing the notice in accordance with §141.85(d)(2);</li><li>• Meet the content requirements in §141.85(d)(3);</li><li>• Meet the delivery requirements in §141.85(d)(4); and</li><li>• Meet the reporting requirements in §141.90(f)(3) to send a sample notification and certification to the state.</li></ul>

## B. Violation Detail

Table E-2 contains the federally reportable violations for the LCR Short-Term Revisions (LCRST) in more detail. These violations are listed by requirement and violation type. The table includes the SDWIS/FED reporting codes, the regulatory citation, a detailed description of the violation, compliance period begin date, and the initial compliance date. Examples of how to report these violations to EPA's Safe Drinking Water Information Systems/Operational Data System (SDWIS/ODS) follows this table.

**Table E-2: Federally Reported Violations for the LCRST**

Monitoring and Reporting Violations						
Affected Violation/Citation	SDWIS Violation Code	Contaminant Code	Compliance Period Begin Date	Compliance Period End Date	Major Violation Indicator	Initial Compliance Date
<b>Consumer Notification Violation</b> <b>Failure to meet any of the following:</b> <ul style="list-style-type: none"> <li>• Provide notice of lead results to individuals served by taps used for lead and copper tap monitoring in accordance with §141.85(d)(1);</li> <li>• Meet the timing requirements for providing the notice in accordance with §141.85(d)(2);</li> <li>• Meet the content requirements in §141.85(d)(3);</li> <li>• Meet the delivery requirements in §141.85(d)(4); and</li> <li>• Meet the reporting requirements in §141.90(f)(3) to send a sample notification and certification to the state.</li> </ul>	66	5000	The day after the certification was due (Three months following the end of the monitoring period)	Do Not Report*	Do Not Report	See state rule manager

\* Note that when PWS provides proof to the state that notification has been performed, the state should submit an action indicating that the PWS has returned to compliance. At that time, the Compliance Period End Date will be populated in the Data Warehouse with the date of that action.

## C. Examples

The examples below help illustrate how to report the new consumer notice violation. It consists of general information that applies to three scenarios. The reason(s) for the lead consumer notice violation vary(ies) in each scenario. However, the information to be reported to SDWIS/ODS is the same and is illustrated in Exhibit E-3, which follows Scenario C of the example.

General Information that Applies to Scenarios A, B, & C
<ul style="list-style-type: none"> <li>★ A PWS (BA0212600) is on reduced monitoring and is required to collect 20 tap samples during June 1 – September 30, 2009.</li> <li>★ It collects 15 samples on June 10, 2009 and 5 samples on August 14, 2009.</li> <li>★ It receives results from the laboratory for the first 15 samples on July 9, 2009 and on September 10, 2009 for the remaining 5 samples.</li> <li>★ One of the lead results is above 0.015 mg/L; the others are below.</li> <li>★ The PWS, regardless of the lead results, must provide lead consumer notice to individuals served by each tested taps.</li> <li>★ It must provide this notice by August 8, 2009 for the first 15 samples and October 10, 2009 for the remaining 5 (i.e., within 30 days of receiving the results).</li> <li>★ The sample notification and certification is due to the state by December 31, 2009 (i.e., within 3 months following the end of the monitoring period of June 1 – September 30).</li> </ul>
EXAMPLE – Reporting a Lead Consumer Notice Violation (Scenario A)
<ul style="list-style-type: none"> <li>★ The PWS provides the required set of notices by August 6, 2009 but does not provide the notices for the last five sample results until October 30, 2009.</li> <li>★ It sends a sample notification and certification to the state on December 15, 2009.</li> <li>★ The PWS would be assigned a lead consumer notice violation because it did not meet the 30-day delivery requirement in §141.85(d)(2) for some of its notices.</li> </ul>
EXAMPLE – Reporting a Lead Consumer Notice Violation (Scenario B)
<ul style="list-style-type: none"> <li>★ Assume instead, that the PWS delivered its lead consumer notice and completed its state reporting requirements on-time.</li> <li>★ Upon review of the sample notice, the state found that it did not include the MCLG or action level for lead or its definitions.</li> <li>★ The PWS would be assigned a lead consumer notice violation because it did not meet the content requirements of §141.85(d)(3).</li> </ul>

### EXAMPLE – Reporting a Lead Consumer Notice Violation (Scenario C)

- ★ Assume that the PWS was late in providing each of its 20 consumer notices.
- ★ Also, assume that the PWS did not send its sample notification and certification to the state until March 15, 2009.
- ★ The PWS would be assigned **one** lead consumer notice violation for both its failure to meet the 30-day delivery requirement in §141.85(d)(2) and state reporting requirements in §141.90(f)(3).

## C.I How to Report the Violation in the Example

In the Scenarios A-C, the state would become aware of the violation on January 2, 2010, due to the January 1<sup>st</sup> holiday, when the system failed to submit its sample consumer notice and certification by December 31, 2009. The begin date of the violation is the day following three months after the end of the monitoring period for which the lead consumer notice was required. In this example, the violation begin date is January 1, 2010.

Exhibit E-3 illustrates how this violation would be reported to SDWIS/ODS using the SDWIS/FedRep Violation Object Elements.

Exhibit E-3. Lead Consumer Notice Violation SDWIS/FedRep Violation Object Elements	
FedRep Element Name	Data Value
PWS ID	<b>BA0212600*</b>
Facility ID	Do Not Report
Violation ID	<b>0100121*</b>
Violation Type	<b>66</b>
Contaminant Code	<b>5000</b>
Compliance Period Begin Date	<b>2009-12-31*</b>
Compliance Period End Date	Do Not Report
Analysis Result	Do Not Report
Major Violation Indicator	Do Not Report
Public Notice Underlying Violation ID	Do Not Report
Severity Indicator Count	Do Not Report
*These data values are unique to each violation.	

## C.2 When to Report Violations

For those systems where EPA is the Primacy Agency or in states that adopt the Rule by reference, the lead consumer notice requirements will become effective on April 7, 2008. For these systems, the earliest that a “66” violation could begin is October 1, 2008. This assumes that the system is monitoring during January - June 2008, and receives some of its lead and copper results after April 7, 2008. The state would become aware of the violation on or before September 30, 2008 when the certification is due (either because the certification is late or based on the information provided in the certification)

The LCRST was published in the October 10, 2007 Federal Register. Section 142.15, Reports by states, was not affected by the Short-Term Revisions. The October 2001 LCRMR reporting guidance cites the current LCR data was required to be reported beginning January 14, 2002. i.e., on January 14, 2002 and thereafter, states are to report the revised milestone, sample, and violation information in accordance with the LCRMR. Milestone reporting for all systems which were deemed to be optimized under Section 141.81(b)(1 - 3), was to be submitted to SDWIS/FED or SDWIS/ODS by February 15, 2001.

While the Short-Term Revisions impacted the violation definitions for following three violation types: follow-up or routine lead and copper M/R (52), study/treatment recommendation (57), and public education (65); it did not change their reporting requirements. Changes to the SDWIS/ODS and SDWIS/FedRep for the new lead consumer notice violation (66) will be made by January 2009.

Systems for which EPA is the Primacy Agency (i.e., Wyoming, DC, and most Indian territories) and in states that incorporate EPA’s drinking water regulations by reference must begin complying with the Short-Term Revisions on April 7, 2008. Under 40 CFR 142.12, states with primacy for the drinking water program are required to adopt state regulations and submit a revised primacy application package to EPA within two years after promulgation of these rule revisions, or October 10, 2009. For states that adopt this rule after April 7, 2008 but before October 10, 2009, the Short-Term Revisions will be effect on the date that the state rule is effective. If the rule becomes effective on a date that falls within a compliance period, compliance determinations for that quarter should be made based on the Short –Term Revisions requirements.

For those states being granted an extension for the adoption of the Short-Term Revisions, reporting in accordance with all new Short-Term Revision requirements is required by the third quarterly reporting period after the date of rule adoption. This means a state has 6 months to complete any modifications to their data system and begin reporting per the new requirements for the data which is due to EPA in the 3<sup>rd</sup> quarter reporting period after adoption.