SOUTH CAROLINA STATE REGISTER DISCLAIMER

SOUTH CAROLINA STATE REGISTER

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THE LEGISLATIVE COUNCIL
of the
GENERAL ASSEMBLY

ASHLEY HARWELL-BEACH, DIRECTOR
DEIRDRE BREVARD SMITH, EDITOR
REBECCA FUDGER TURNER, ASSOCIATE EDITOR

P.O. BOX 11489
COLUMBIA, SC 29211
TELEPHONE (803) 212-4500

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This issue contains notices, proposed regulations, emergency regulations, final form regulations, and other documents filed in the Office of the Legislative Council, pursuant to Article 1, Chapter 23, Title 1, Code of Laws of South Carolina, 1976.

SOUTH CAROLINA STATE REGISTER

An official state publication, the *South Carolina State Register* is a temporary update to South Carolina's official compilation of agency regulations--the *South Carolina Code of Regulations*. Changes in regulations, whether by adoption, amendment, repeal or emergency action must be published in the *State Register* pursuant to the provisions of the Administrative Procedures Act. The *State Register* also publishes the Governor's Executive Orders, notices or public hearings and meetings, and other documents issued by state agencies considered to be in the public interest. All documents published in the *State Register* are drafted by state agencies and are published as submitted. Publication of any material in the *State Register* is the official notice of such information.

STYLE AND FORMAT

Documents are arranged within each issue of the *State Register* according to the type of document filed:

Notices are documents considered by the agency to have general public interest.
Notices of Drafting Regulations give interested persons the opportunity to comment during the initial drafting period before regulations are submitted as proposed.
Proposed Regulations are those regulations pending permanent adoption by an agency.
Pending Regulations Submitted to the General Assembly are regulations adopted by the agency pending approval by the General Assembly.
Final Regulations have been permanently adopted by the agency and approved by the General Assembly.
Emergency Regulations have been adopted on an emergency basis by the agency.
Executive Orders are actions issued and taken by the Governor.

2023 PUBLICATION SCHEDULE

Documents will be accepted for filing on any normal business day from 8:30 A.M. until 5:00 P.M. All documents must be submitted in the format prescribed in the *Standards Manual for Drafting and Filing Regulations.*

To be included for publication in the next issue of the *State Register*, documents will be accepted no later than 5:00 P.M. on any closing date. The modification or withdrawal of documents filed for publication must be made **by 5:00 P.M.** on the closing date for that issue.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Submission Deadline	1/13	2/10	3/10	4/14	5/12	6/9	7/14	8/11	9/8	10/13	11/10	12/8
Publishing Date	1/27	2/24	3/24	4/28	5/26	6/23	7/28	8/25	9/22	10/27	11/24	12/22

REPRODUCING OFFICIAL DOCUMENTS

Documents appearing in the *State Register* are prepared and printed at public expense. Media services are encouraged to give wide publicity to documents printed in the *State Register*.

PUBLIC INSPECTION OF DOCUMENTS

Documents filed with the Office of the State Register are available for public inspection during normal office hours, 8:30 A.M. to 5:00 P.M., Monday through Friday. The Office of the State Register is in the Legislative Council, Fourth Floor, Rembert C. Dennis Building, 1000 Assembly Street, in Columbia. Telephone inquiries concerning material in the *State Register* or the *South Carolina Code of Regulations* may be made by calling (803) 212-4500.

ADOPTION, AMENDMENT AND REPEAL OF REGULATIONS

To adopt, amend or repeal a regulation, an agency must publish in the *State Register* a Notice of Drafting; a Notice of the Proposed Regulation that contains an estimate of the proposed action's economic impact; and, a notice that gives the public an opportunity to comment on the proposal. If requested by twenty-five persons, a public hearing must be held at least thirty days after the date of publication of the notice in the *State Register*.

After the date of hearing, the regulation must be submitted to the General Assembly for approval. The General Assembly has one hundred twenty days to consider the regulation. If no legislation is introduced to disapprove or enacted to approve before the expiration of the one-hundred-twenty-day review period, the regulation is approved on the one hundred twentieth day and is effective upon publication in the *State Register*.

EMERGENCY REGULATIONS

An emergency regulation may be promulgated by an agency if the agency finds imminent peril to public health, safety or welfare. Emergency regulations are effective upon filing for a ninety-day period. If the original filing began and expired during the legislative interim, the regulation can be renewed once.

REGULATIONS PROMULGATED TO COMPLY WITH FEDERAL LAW

Regulations promulgated to comply with federal law are exempt from General Assembly review. Following the notice of proposed regulation and hearing, regulations are submitted to the *State Register* and are effective upon publication.

EFFECTIVE DATE OF REGULATIONS

Final Regulations take effect on the date of publication in the *State Register* unless otherwise noted within the text of the regulation.
Emergency Regulations take effect upon filing with the Legislative Council and remain effective for ninety days. If the original ninety-day period begins and expires during legislative interim, the regulation may be refiled for one additional ninety-day period.

SUBSCRIPTIONS

The *South Carolina State Register* is available electronically through the South Carolina Legislature Online website at www.scstatehouse.gov, or in a printed format. Subscriptions run concurrent with the State of South Carolina's fiscal year (July through June). The annual subscription fee for the printed format is $90.00 plus applicable sales tax. Payment must be made by check payable to the Legislative Council. To subscribe, complete the form below and mail with payment.

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South Carolina General Assembly Home Page: http://www.scstatehouse.gov/regnsrch.php

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Executive Order No. 2022-35

WHEREAS, the undersigned has been notified that a vacancy will exist in the office of Supervisor of Union County due to the resignation of Robert L. Love, effective November 30, 2022; and

WHEREAS, pursuant to section 4-9-90 of the South Carolina Code of Laws, as amended, vacancies occurring on the governing body of a county are generally "filled in the manner of original election for the unexpired terms in the next general election after the vacancy occurs or by special election if the vacancy occurs one hundred eighty days or more prior to the next general election"; and

WHEREAS, a general election for the office of Supervisor of Union County was held on November 8, 2022; and

WHEREAS, the Union County Board of Elections and Voter Registration has confirmed that Phillip G. Russell, II prevailed in the general election conducted on November 8, 2022, and is the Union County Supervisor-Elect; and

WHEREAS, absent prior action by the undersigned, a vacancy would exist in the office of Supervisor of Union County upon the resignation of Robert L. Love and such office would remain vacant until the commencement of the term to which Phillip G. Russell, II was elected on January 3, 2023, in accordance with section 4-11-10 of the South Carolina Code of Laws, as amended; and

WHEREAS, pursuant to section 4-9-420 of the South Carolina Code of Laws, as amended, "[t]he powers and duties of the supervisor shall include, but not be limited to, . . . serv[ing] as the chief administrative officer of the county government"; and

WHEREAS, in view of the foregoing circumstances and considerations, the members of the Union County Legislative Delegation have recommended that the undersigned appoint Phillip G. Russell, II to fill the aforementioned vacancy and serve as Supervisor of Union County upon the resignation of Robert L. Love and for the duration of the unexpired term; and

WHEREAS, in the event of a vacancy in a county office, the undersigned is authorized to appoint a suitable person, who shall be an elector of the county, to serve in such office pursuant to sections 1-3-220(2) and 4-11-20(1) of the South Carolina Code of Laws, as amended; and

WHEREAS, for the aforementioned reasons, and in accordance with the cited authorities and other applicable law, the undersigned has determined that it is appropriate under the circumstances presented to appoint Phillip G. Russell, II, Union County Supervisor-Elect, to serve as Supervisor of Union County for the remainder of the current unexpired term, *see Op. Att'y Gen.*, 1996 WL 599395, at *1 (S.C.A.G. Sept. 9, 1996); *see also Bradford v. Byrnes*, 221 S.C. 255, 262, 70 S.E.2d 228, 231 (1952) ("As nature abhors a void, the law of government does not ordinarily countenance an *interregnum*."); and

WHEREAS, Phillip G. Russell, II, of Union, South Carolina, is a fit and proper person to serve as Supervisor of Union County.

NOW, THEREFORE, by virtue of the authority vested in me as Governor of the State of South Carolina and pursuant to the Constitution and Laws of this State and the powers conferred upon me therein, I hereby appoint Phillip G. Russell, II to serve as Supervisor of Union County, effective December 1, 2022, until a successor shall qualify as provided by law. This Order is effective immediately.

GIVEN UNDER MY HAND AND THE GREAT SEAL OF THE STATE OF SOUTH CAROLINA, THIS 18th DAY OF NOVEMBER, 2022.

HENRY MCMASTER
Governor

Executive Order No. 2022-36

WHEREAS, beginning on or about November 10, 2022, certain portions of the State of South Carolina experienced severe weather, including damaging winds, significant rainfall, localized flooding, and other hazardous conditions, in connection with Tropical Storm Nicole; and

WHEREAS, due to the aforementioned hazardous weather conditions and the threat of more significant impacts associated with Tropical Storm Nicole, and in accordance with the directive for state government offices to follow county government closure determinations and the normal state procedure related to the same, state government offices in one or more counties in the State were closed or operated on an abbreviated schedule to ensure the safety of state employees and the general public; and

WHEREAS, section 8-11-57 of the South Carolina Code of Laws, as amended, provides, in pertinent part, that "whenever the Governor declares a state of emergency or orders all or some state offices closed due to hazardous weather conditions he may authorize up to five days leave with pay for affected state employees who are absent from work due to the state of emergency or the hazardous weather conditions."

NOW, THEREFORE, by virtue of the authority vested in me as Governor of the State of South Carolina and pursuant to the Constitution and Laws of this State and the powers conferred upon me therein, I hereby order and direct as follows:

Section 1. Authorizing Leave with Pay Due to Tropical Storm Nicole

A. I hereby authorize leave with pay for affected state employees, as set forth below, who were absent from work due to the aforementioned hazardous weather conditions, and in accordance with the directive for state government offices to follow county government closure determinations for hazardous weather conditions, in the following county and on the following date:

November 10, 2022:
Closed: Beaufort County

B. In the event that county government offices in a county not listed above were closed or operated on an abbreviated schedule due to the aforementioned hazardous weather conditions, I hereby authorize the South Carolina Department of Administration to grant leave with pay for affected state employees who were absent from work as a result of the corresponding closure of state government offices and to administratively add any such county to the list of covered closures without the need for further Orders.

Section 2. General Provisions

A. This Order is not intended to create, and does not create, any individual right, privilege, or benefit, whether substantive or procedural, enforceable at law or in equity by any party against the State of South Carolina, its agencies, departments, political subdivisions, or other entities, or any officers, employees, or agents thereof, or any other person.

B. This Order shall be implemented consistent with and to the maximum extent provided by applicable law and shall be subject to the availability of appropriations. This Order shall not be interpreted, applied, implemented, or construed in a manner so as to impair, impede, or otherwise affect the authority granted by law to an executive agency or department, or the officials or head thereof, including the undersigned.

C. This Order is effective immediately.

GIVEN UNDER MY HAND AND THE GREAT SEAL OF THE STATE OF SOUTH CAROLINA, THIS 23rd DAY OF NOVEMBER, 2022.

HENRY MCMASTER
Governor

Executive Order No. 2022-37

WHEREAS, in accordance with Act No. 476 of 1998, the Board of Voter Registration and Elections of Jasper County ("County Board of Elections") held an election on November 8, 2022, for the office and seat representing District 2 ("Seat 2") on the Board of Trustees of the School District of Jasper County ("District"); and

WHEREAS, on November 21, 2022, the County Board of Elections, in its capacity as the Jasper County Board of Canvassers ("County Board of Canvassers"), conducted a hearing to consider and decide one or more protests filed by an unsuccessful candidate in the November 8, 2022 election for Seat 2 challenging the results of the same on the basis that the candidate declared to have prevailed in such election was ineligible or unqualified on account of residency; and

WHEREAS, on November 21, 2022, the County Board of Canvassers issued a unanimous decision granting one or more protests related to Seat 2, voiding the election for Seat 2, concluding that a special election for Seat 2 is warranted, and authorizing the chairman to request that the undersigned order a special election for Seat 2 in accordance with section 7-13-1170 of the South Carolina Code of Laws, as amended; and

WHEREAS, the time period prescribed by section 7-17-60 of the South Carolina Code of Laws, as amended, for appealing the decision of the County Board of Canvassers to the State Board of Canvassers has expired, and the County Board of Elections, upon consultation with the State Election Commission, has requested that the undersigned order a special election for Seat 2 to be held on March 7, 2023; and

WHEREAS, section 7-13-1170 of the South Carolina Code of Laws provides as follows: "When any election official of any political subdivision of this State charged with ordering, providing for, or holding an election has neglected, failed, or refused to order, provide for, or hold the election at the time appointed, or if for any reason the election is declared void by competent authority, and these facts are made to appear to the satisfaction of the Governor, he shall, should the law not otherwise provide for this contingency, order an election or a new election to be held at the time and place, and upon the notice being given which to him appears adequate to insure the will of the electorate being fairly expressed. To that end, he may designate the existing election official or other person as he may appoint to perform the necessary official duties pertaining to the election and to declare the result."

NOW, THEREFORE, by virtue of the authority vested in me as Governor of the State of South Carolina and pursuant to the Constitution and Laws of this State and the powers conferred upon me therein, I hereby order that a special election shall be held on Tuesday, March 7, 2023, for Seat 2 on the District's Board of Trustees. Pursuant to section 7-13-1170 of the South Carolina Code of Laws, I designate and appoint the County Board of Elections to perform the necessary official duties pertaining to the election for District 2, in

accordance with the applicable constitutional and statutory provisions, and to declare the results thereof. In order to qualify as a candidate for the seat, all candidates must file with the County Board of Elections a statement of intention of candidacy, and submit any applicable filing fees, by noon on Thursday, December 29, 2022. This Order is effective immediately.

GIVEN UNDER MY HAND AND THE GREAT SEAL OF THE STATE OF SOUTH CAROLINA, THIS 5th DAY OF DECEMBER, 2022.

HENRY MCMASTER
Governor

Executive Order No. 2022-38

WHEREAS, on December 6, 2022, a Grand Jury convened in Pickens County returned an Indictment charging Donald Edward McKinney, a member of the City Council of the City of Pickens, with Criminal Sexual Conduct with a Minor, Second Degree, in violation of section 16-3-655(B)(2) of the South Carolina Code of Laws, as amended; and

WHEREAS, article VI, section 8 of the South Carolina Constitution provides, in relevant part, that "[a]ny officer of the State or its political subdivisions . . . who has been indicted by a grand jury for a crime involving moral turpitude . . . may be suspended by the Governor until he shall have been acquitted" and "[i]n case of conviction the office shall be declared vacant and the vacancy filled as may be provided by law"; and

WHEREAS, Donald Edward McKinney, as a member of the City Council of the City of Pickens, is an officer of the State or its political subdivisions; and

WHEREAS, under South Carolina law, moral turpitude "implies something immoral in itself, regardless of whether it is punishable by law as a crime," involves "an act of baseness, vileness, or depravity in the private and social duties which a man owes to his fellow man, or to society in general, contrary to the accepted and customary rule of right and duty between man and man," or otherwise includes conduct "contrary to justice, honesty[,] and good morals," *State v. Horton*, 271 S.C. 413, 414–15, 248 S.E.2d 263, 263–64 (1978); *see also Baddourah v. McMaster*, 433 S.C. 89, 112, 856 S.E.2d 561, 573 (2021) ("Under South Carolina's moral turpitude framework, we focus 'primarily on the duty to society and fellow man [that] is breached by the commission of the crime.'"); and

WHEREAS, upon consideration of the circumstances presented, to include the particularized facts alleged in the Indictment and classification of the offense, the undersigned has determined that the aforementioned Indictment charges Donald Edward McKinney with "a crime involving moral turpitude" for purposes of article VI, section 8 of the South Carolina Constitution, *see State v. McFarlane*, 279 S.C. 327, 332, 306 S.E.2d 611, 614 (1983) ("criminal sexual conduct with a minor in any degree is a crime of moral turpitude"); and

WHEREAS, for the foregoing reasons, and in accordance with article VI, section 8 of the South Carolina Constitution, the undersigned is authorized to suspend Donald Edward McKinney from office as a member of the City Council of the City of Pickens until such time as he shall be acquitted or convicted or until a successor is elected and qualifies as provided by law, whichever event occurs first.

NOW, THEREFORE, by virtue of the authority vested in me as Governor of the State of South Carolina and pursuant to the Constitution and Laws of this State and the powers conferred upon me therein, I hereby suspend Donald Edward McKinney from office as a member of the City Council of the City of Pickens until such time as he shall be formally acquitted or convicted or until a successor is elected and qualifies as

provided by law, whichever event occurs first. This action in no manner addresses the guilt or innocence of Donald Edward McKinney and shall not be construed as an expression of any opinion on such question. This Order is effective immediately.

GIVEN UNDER MY HAND AND THE GREAT SEAL OF THE STATE OF SOUTH CAROLINA, THIS 6th DAY OF DECEMBER, 2022.

HENRY MCMASTER
Governor

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

NOTICE OF GENERAL PUBLIC INTEREST

In accordance with Section 44-7-200(D), Code of Laws of South Carolina, the public is hereby notified that a Certificate of Need application has been accepted for filing and publication on **December 23, 2022,** for the following project(s). After the application is deemed complete, affected persons will be notified that the review cycle has begun. For further information, please contact Certificate of Need Program, 2600 Bull Street, Columbia, South Carolina 29201, at (803) 545-4200, or by email at coninfo@dhec.sc.gov.

Affecting Anderson County
AnMed Health
Construction of a 14,933 sf Freestanding Emergency Department (FSED) in Anderson County at a total project cost of $16,233,025.

Affecting Darlington County
Carolina Pines Regional Medical Center
Purchase of a Globus Medical-Excelsius GPS Robotic Navigation System at a total project cost of $2,157,750.

Affecting Horry County
Grand Strand Regional Medical Center, LLC d/b/a Carolina Forest Imaging Center
Purchase of an GE Revolution Ascend 64 slice CT Scanner at a total project cost of $1,275,801.38.

Affecting Spartanburg County
Premier Treatment of Spartanburg, LLP
Establishment of an Opioid Treatment Program (OTP) in Spartanburg County at a total project cost of $71,000.

Spartanburg Regional Health Services District, Inc. d/b/a Spartanburg Medical Center-Church Street Campus
Addition of a 6th Comprehensive Cardiac Catheterization Laboratory in the Heart Center at a total project cost of $3,355,673.14

In accordance with Section 44-7-210(A), Code of Laws of South Carolina, and S.C. DHEC Regulation 61-15, the public and affected persons are hereby notified that for the following projects, applications have been deemed complete, and the review cycle has begun. A proposed decision will be made as early as 30 days, but no later than 120 days, from **December 23, 2022**. "Affected persons" have 30 days from the above date to submit requests for a public hearing to Certificate of Need Program, 2600 Bull Street, Columbia, South Carolina 29201. If a public hearing is timely requested, the Department's decision will be made after the public hearing, but no later than 150 days from the above date. For further information call (803) 545-4200 or email coninfo@dhec.sc.gov.

Affecting Greenwood County
Self Regional Healthcare
Purchase of a mobile CT Scanner unit from GE Healthcare at the hospital and relocation of a CT Scanner to an existing empty CT room at its nearby Tower Pointe Medical Center at a total project cost of $1,757,986.53.

Affecting Lexington County
Judah Med Care LLC (JMC) d/b/a Judah Med Care Home Health Division
Establishment of a Home Health agency in Lexington County at a total project cost of $39,000.

Affecting Richland County
Judah Med Care LLC (JMC) d/b/a Judah Med Care Home Health Division
Establishment of a Home Health agency in Richland County at a total project cost of $39,000.

Affecting York County

Amisub of South Carolina, Inc., d/b/a Piedmont Medical Center-Fort Mill
Establishment of a Diagnostic Cardiac Catheterization Laboratory through the conversion of an existing special procedures lab to a Diagnostic Cardiac Catheterization Laboratory at a total project cost of $50,000.

Judah Med Care LLC (JMC) d/b/a Judah Med Care Home Health Division
Establishment of a Home Health agency in York County at a total project cost of $39,000.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

NOTICE OF GENERAL PUBLIC INTEREST

DHEC-Bureau of Land and Waste Management, File # 58978
Southern Worsted Mill Site

NOTICES OF VOLUNTARY CLEANUP CONTRACT, CONTRIBUTION PROTECTION, AND COMMENT PERIOD

PLEASE TAKE NOTICE that the South Carolina Department of Health and Environmental Control (the Department) intends to enter into a Voluntary Cleanup Contract (VCC) with Richloom Fabrics Corp. (the Responsible Party). The VCC provides that the Responsible Party, with DHEC's oversight, will fund and perform future response actions at the Southern Worsted Mill facility located in Greenville County at 100 Mill Street, Greenville, South Carolina and any surrounding area impacted by the migration of hazardous substances, pollutants, or contaminants (the Site).

Response actions addressed in the VCC include, but may not be limited to, the Responsible Party funding and performing a remedial investigation and, if necessary, an evaluation of cleanup alternatives for addressing any contamination. Further, the Responsible Party shall reimburse the Department's future costs of overseeing the work performed by the Responsible Party and other Department response costs pursuant to the VCC.

The VCC is subject to a thirty-day public comment period consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9613, and the South Carolina Hazardous Waste Management Act (HWMA), S.C. Code Ann. Section 44-56-200 (as amended). Notices of contribution protection and comment period will be provided to other known potentially responsible parties. The VCC is available:

(1) On-line at http://www.scdhec.gov/PublicNotices; or
(2) By contacting Elisa Vincent at 803-898-0882 or vincenef@dhec.sc.gov.

Any comments to the proposed VCC must be submitted in writing, postmarked no later than January 23, 2022, and addressed to: Elisa Vincent, DHEC-BLWM-SARR, 2600 Bull Street, Columbia, SC 29201.

Upon the successful completion of the VCC, the Responsible Party will receive a covenant not to sue for the work done in completing the response actions specifically covered in the VCC and completed in accordance with the approved work plans and reports. Upon execution of the VCC, the Responsible Party shall be deemed to have resolved their liability to the State in an administrative settlement for purposes of, and to the extent authorized under CERCLA, 42 U.S.C. Sections 9613(f)(2) and 9613(f)(3)(B), and under HWMA, S.C. Code Ann. Section 44-56-200, for the matters addressed in the VCC. Further, to the extent authorized under 42 U.S.C. Section 9613(f)(3)(B), S.C. Code Ann. Section 44-56-200, the Responsible Party may seek contribution from any person who is not a party to this administrative settlement.

STATE BOARD OF EDUCATION

CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60, 59-1-320, and 4 U.S.C. Section 1, et seq.

Notice of Drafting:

The State Board of Education proposes to amend Regulation 43-188: Displaying the Flag, last revised June 27, 2014.

Interested persons may submit their comments in writing to Kenzie Riddle, 1429 Senate Street, or by e-mail to emriddle@ed.sc.gov. To be considered, all comments must be received no later than 5:00 p.m. on January 11, 2023.

Synopsis:

State Board of Education Regulation 43-188 outlines the displaying of the United States flag and the South Carolina flag. The purpose of this amendment is to comply with the directive provided for in Senate Bill 969 (State Board of Education) of the 2022-23 session. As directed by the South Carolina General Assembly pursuant to Senate Bill 969, the State Board of Education shall promulgate regulations specifying how the depictions shall be displayed and amend the current regulation to include the official mottos of the United States and South Carolina and their respective translations. The regulation shall be submitted to the State Board of Education for the first reading by January 11, 2023.

Legislative review is required.

DEPARTMENT OF MENTAL HEALTH

CHAPTER 87

Statutory Authority: 1976 Code Sections 44-9-100, 44-11-70, and 56-21-70

Notice of Drafting:

The Department of Mental Health proposes to amend Regulation 87-2, regarding Parking Regulations. Interested person may submit their comments in writing to Robin Crawford, Legislative Liaison, 2414 Bull St, Suite 402, Columbia, SC 29201. To be considered, all comments must be received no later than 5:00 pm on January 23, 2023, the close of the drafting comment period.

Synopsis:

The Department of Mental Health proposes to amend R.87-2 to update the violations and bonds by tying them to similar offenses in the counties where Department facilities are located.

Legislative review of this amendment is required.

PUBLIC SERVICE COMMISSION

CHAPTER 103

Statutory Authority: 1976 Code Sections 58-3-140 and 58-5-210

Notice of Drafting:

The Public Service Commission of South Carolina is conducting a formal review of its South Carolina Code of State Regulations Chapter 103, Article 5, Sewerage Utilities. Interested persons may submit comments to the

Public Service Commission, Clerk's Office, 101 Executive Center Drive, Suite 100, Columbia, South Carolina 29210, and interested persons may file comments by using the methods outlined in Commission Order No. 2019-748. Please reference Docket Number 2022-390-A. To be considered, comments must be received no later than 4:45 p.m. on Thursday, February 2, 2023.

Synopsis:

S.C. Code Ann. Section 1-23-120(J) states, in part, "Each state agency, which promulgates regulations or to which the responsibility for administering regulations has been transferred, shall by July 1, 1997, and every five years thereafter, conduct a formal review of all regulations which it has promulgated or for which it has been transferred the responsibility of administering, except that those regulations described in subsection (H) are not subject to this review."

The Public Service Commission of South Carolina, in compliance with S.C. Code Ann. Section 1-23-120(J), is in the process of continuing its review of Chapter 103, Article 5, Sewerage Utilities South Carolina Code of State Regulations. The Public Service Commission Staff opened Docket No. 2020-247-A on Wednesday, October 14, 2020, and has publicly noticed and held workshops regarding the Chapter 103, Article 5, Sewerage Utilities Regulations. Interested stakeholders participated in these workshops and provided written comments, which can be viewed in Docket No. 2020-247-A.

The Public Service Commission Staff intends to file proposed regulations that contain recommended changes to the Commission's Chapter 103, Article 5, Sewerage Utilities Regulations.

Legislative review of this proposal will be required.

PUBLIC SERVICE COMMISSION
CHAPTER 103
Statutory Authority: 1976 Code Sections 58-3-140 and 58-5-210

Notice of Drafting:

The Public Service Commission of South Carolina is conducting a formal review of its South Carolina Code of State Regulations Chapter 103, Article 7, Water Utilities. Interested persons may submit comments to the Public Service Commission, Clerk's Office, 101 Executive Center Drive, Suite 100, Columbia, South Carolina 29210, and interested persons may file comments by using the methods outlined in Commission Order No. 2019-748. Please reference Docket Number 2022-389-A. To be considered, comments must be received no later than 4:45 p.m. on Thursday, February 2, 2023.

Synopsis:

S.C. Code Ann. Section 1-23-120(J) states, in part, "Each state agency, which promulgates regulations or to which the responsibility for administering regulations has been transferred, shall by July 1, 1997, and every five years thereafter, conduct a formal review of all regulations which it has promulgated or for which it has been transferred the responsibility of administering, except that those regulations described in subsection (H) are not subject to this review."

The Public Service Commission of South Carolina, in compliance with S.C. Code Ann. Section 1-23-120(J), is in the process of continuing its review of Chapter 103, Article 7, Water Utilities South Carolina Code of State Regulations. The Public Service Commission Staff opened Docket No. 2020-247-A on Wednesday, October 14, 2020, and has publicly noticed and held workshops regarding the Chapter 103, Article 7, Water Utilities Regulations. Interested stakeholders participated in these workshops and provided written comments, which can be viewed in Docket No. 2020-247-A.

The Public Service Commission Staff intends to file proposed regulations that contain recommended changes to the Commission's Chapter 103, Article 7, Water Utilities Regulations.

Legislative review of this proposal will be required.

Document No. 5174
DEPARTMENT OF CONSUMER AFFAIRS
CHAPTER 28
Statutory Authority: 1976 Code Sections 37-6-104, 37-6-402, 37-6-403, and 37-6-506

28-58. Equal Periodic Intervals. (New)

Preamble:

The South Carolina Department of Consumer Affairs proposes adding a regulation to provide guidance on regular schedule of payments for consumer loans, Section 37-3-511.

Section-by-Section Discussion:

A. Definitions.
Adds new text with reference to Title 37 definitions and additional definitions.

B. Prohibition.
Adds new text regarding need to comply with the regulation.

C. Shortened First Payments.
Adds new text establishing parameters for offering a shortened first payment.

D. Timing.
Adds new text establishing permissible timeframes for shortened first payments and extended first payments.

E. Seasonal or Irregular Income.
Adds new text regarding ability to adjust for seasonal or irregular income of a debtor.

The Notice of Drafting was published in the *State Register* on August 26, 2022.

Notice of Public Hearing and Opportunity for Public Comment:

Interested persons are invited to submit their views in writing by mail to Kelly Rainsford, Deputy Administrator/General Counsel, South Carolina Department of Consumer Affairs, P.O. Box 5757, Columbia, SC 29250 or by e-mail to KRainsford@scconsumer.gov. To be considered, comments must be received no later than 5:00 p.m. on January 23, 2023, the close of the comment period. Should a public hearing be requested pursuant to Section 1-23-110(A)(3) of the South Carolina Code Annotated, the hearing will be held on February 14, 2023, at 2:30 p.m., at the South Carolina Department of Archives and History, 8301 Parklane Road, Columbia, SC 29223. If no qualifying hearing request is received by 5:00 p.m. on January 23, 2023, the hearing will be cancelled.

Preliminary Fiscal Impact Statement:

There will be no cost incurred by the State or any of its political subdivisions for the promulgation of this regulation.

Statement of Need and Reasonableness:

DESCRIPTION OF REGULATION: 28-58. Equal Periodic Intervals.

Purpose: The purpose of the regulation is to establish definitions, including of "equal periodic interval," and provide guidance and parameters regarding shortened and extended first payment intervals for certain consumer loans.

Legal Authority: 1976 Code Sections 37-6-104, 37-6-402, 37-6-403, and 37-6-506.

Plan for Implementation: The regulation will take effect upon General Assembly approval and publication in the State Register. Department personnel will take appropriate steps to inform the regulated community of the regulation, including posting a notice on the Department's website.

DETERMINATION OF NEED AND REASONABLENESS OF THE PROPOSED REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The proposed regulation is necessary and reasonable to establish definitions and parameters regarding a consumer lender's ability to shorten the first payment interval and guidance about extending the first payment interval of certain consumer loans.

DETERMINATION OF COSTS AND BENEFITS:

Implementation of this regulation will not require additional resources or result in additional costs to the Department, the State, or its political subdivisions. This regulation will provide guidance regarding the regular schedule of payments for certain consumer loans, including shortened and extended first payments, to ensure compliance with the statutory requirement of establishing equal periodic intervals for such consumer loans. Consumers will also benefit from disclosure regarding first payment dates and guardrails to deter repayment issues in certain consumer loan transactions.

UNCERTAINTIES OF ESTIMATES:

It is possible the Department may need to pursue enforcement of the regulation requirements. A finite amount of costs is undetermined due to uncertainty in estimating the number of matters that will warrant administrative action or litigation.

EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

This regulation will have no effect on the environment or public health.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

There will be no detrimental effect on the environment or public health of this State if this regulation is not implemented.

Statement of Rationale:

Section 37-3-511 provides that certain consumer loans must be scheduled in substantially equal installments at equal periodic intervals except when the schedule is adjusted to the seasonal or irregular income of the debtor. The Department proposes to define the term "equal periodic interval" and other applicable terms and to provide guidance regarding extended first payments and shortened first payments. It is necessary to promulgate a regulation to address confusion in the application of shortened and extended first payments and deter repayment issues.

Text:

The full text of this regulation is available on the South Carolina General Assembly Home Page: **http://www.scstatehouse.gov/regnsrch.php.** Full text may also be obtained from the promulgating agency.

Filed: November 29, 2022 11:45 am

Document No. 5173
DEPARTMENT OF NATURAL RESOURCES
CHAPTER 123
Statutory Authority: 1976 Code Sections 50-1-200, 50-1-220, 50-11-10, 50-11-2200, and 50-11-2210

Emergency Situation:

These emergency regulations establish seasons, limits and special restrictions for dove hunting on Dove Management Areas. Because the dove season extends through January 31, 2023, it is necessary to refile these emergency regulations.

Text:

WILDLIFE MANAGEMENT AREA PUBLIC DOVE FIELDS 2022-2023

Dove Management Area Regulations: The following fields are open only during the dates and times indicated below. A Wildlife Management Area permit and a Migratory Bird Permit are required for dove hunting on all fields. Fields denoted by an asterisk (*) require hunters to sign in and sign out on ALL hunts. No species other than mourning doves, pigeons and Eurasian collared doves may be hunted during scheduled dove hunts.

Statewide Season Dates:
September 3 - October 8, November 12 - November 26, December 24, 2022 - January 31, 2023.
Bag Limit: Mourning Doves: 15 doves per day. No limit on Eurasian collared doves or pigeons.

The following special regulations apply to all Wildlife Management Area Public Dove Fields: Hunters are limited to 50 shells per hunt. No entry onto fields before 12:00 noon. No shooting after 6:00 p.m. during the first segment of the season (September 3 – October 8).

ABBEVILLE
U.S. Forest Service – Power of Partnerships Field – Sept. 3 Adult/Youth Hunt. 1st season – Saturdays Only beginning Sept. 10. 2nd and 3rd seasons open Mon. – Sat.

AIKEN
*US Dept of Energy - Crackerneck WMA. 1st season – Sept. 7, 21, 28.

ANDERSON
Clemson University - Fant's Grove WMA. 1st season - Saturdays Only Beginning Sept. 3. Field Closed Oct. 1. Open 2nd & 3rd seasons – Saturdays Only.

BERKELEY
*U.S. Army Corps of Engineers - Canal WMA. Sept. 3, 24; Oct. 8; Nov. 19. Sept. 10 is Wounded Warrior Hunt Only -Invitation Only.

CHARLESTON
*DNR Botany Bay Plantation WMA. Sept. 3, 10, Oct. 8, Nov. 12. All hunts are Adult/Youth Only.

CHEROKEE
Duke Energy – London Creek WMA. Saturdays only beginning Sept. 3.

CHESTER

U.S. Forest Service - Worthy Bottoms. 1st season - Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons - Open Mon. –Sat.

DNR Landsford Canal Forest Legacy Area. 1st season - Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons - Open Mon. –Sat.

CHESTERFIELD
SC Forestry Commission – Sand Hills State Forest - Wilkes Chapel Field. 1st season –Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons - Open Mon. – Sat.

SC Forestry Commission – Sand Hills State Forest - Davis Field. 1st season – Opening Day Sept. 3, then Wednesdays Only beginning Sept. 14. 2nd & 3rd seasons – Open Mon. – Sat.

CLARENDON
*Santee Cooper - Santee Dam WMA. Sept. 3, 17; Oct. 1; Nov. 19.

*SC Forestry Commission - Oak Lea WMA. Sept. 3, 10, 17, 24, Oct. 1, Dec. 28; Jan. 4.

COLLETON
*DNR - Donnelley WMA. Sept. 3, 10; Oct. 8; Nov. 12.

FLORENCE
Santee Cooper – Pee Dee Station Site WMA. Sept. 3, 17; Oct. 8; Nov. 26; Dec. 31; Jan.14, 28. Dove Hunting Only.

GEORGETOWN
*DNR Samworth WMA - Sept. 3, 17; Oct. 1; Nov. 12, 19.

GREENVILLE
DNR Tall Pines WMA. Dove Hunting Only. 1st Season - Saturdays Only Beginning Sept. 3. 2nd and 3rd seasons – Saturdays Only.

HAMPTON
*DNR – Palachucola WMA. Sept. 3, 10, 21; Oct 1; Nov. 12.
*DNR - Webb Wildlife Center. Sept. 3, 10, 21; Oct. 1; Nov. 12.

LAURENS
DNR Cliff Pitts WMA - 1st season – Saturdays Only Beginning Sept. 3. 2nd and 3rd seasons open Mon. – Sat.
DNR Gray Court Field. 1st season - Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons open Mon. - Sat.

LEXINGTON
Hallman Field. 1st season - Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons - Saturdays Only. Dove Hunting Only.

MARLBORO
DNR - Lake Wallace WMA. Sept. 3, 17; Oct. 8; Nov. 26; Dec. 31; Jan. 14, 28. Dove Hunting Only.

MCCORMICK
*U.S. Army Corps of Engineers - Bordeaux Field. Sept. 3 & 21; Oct. 5; Nov. 23; Dec. 28; Jan. 11 & 25; Dove Hunting Only. Hunters must sign-in & out at 1009 McIntosh Rd.

U.S. Army Corps of Engineers – Parksville Field. 1st season – Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons – Open Mon. - Sat.

US Army Corp of Engineers - Plum Branch Fields. 1st season – Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons – Open Mon. - Sat.

NEWBERRY
SCDOT McCullough Field. Saturdays Beginning Sept. 3. Dove Hunting Only.

DNR Belfast WMA. Sept. 3, 10, 17, 24; Oct. 1; Nov. 26. 3rd season - Open Mon. - Sat.

OCONEE
U.S. Forest Service – Long Creek Tract. In order to hunt, adults must have 1 or 2 youth age 17 or younger. 1st season – Saturdays Only Beginning Sept. 3. 2nd season – Open November 12 & 19 Only. 3rd season – Closed.

U.S. Forest Service - Ross Mtn. Field. Open 1st, 2nd and 3rd seasons. Saturdays Only Beginning Sept. 3.

ORANGEBURG
*Santee Cooper - Santee Cooper WMA. Sept. 3 is Adult/Youth Only. Sept. 10, 24; Nov. 12.

PICKENS
DNR Property - Rifle Range. Open 1st, 2nd and 3rd seasons. Saturdays Only Beginning Sept. 3. Dove hunting only.

Clemson University - Gravely WMA - Causey Tract. Open 1st, 2nd and 3rd seasons. Saturdays Only Beginning Sept. 3. Dove hunting only.

DNR Property – Jocassee Gorges – Cane Creek Field. Open Wednesday Only, Beginning Sept. 21. Open 1st, 2nd and 3rd seasons.

RICHLAND
Love WMA – Sept. 3, 10, 17, 24; Oct. 1

SALUDA
SCE&G Saluda River Field. 1st season - Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons - Open Mon. - Sat.

SPARTANBURG
Santee Cooper. 1st season – Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons – Open Mon. – Sat.

SUMTER
S.C. Forestry Commission - Manchester State Forest
*Bland Field 1. Sept. 3 is Adult/Youth Hunt Only. 1st season - Saturdays Only Beginning Sept. 10. 2nd & 3rd seasons open Mon. – Sat. (Designated fields and the general forest).

*Tuomey Fields Field A –1st season – Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons open Mon. – Sat. (Designated fields and the general forest).

UNION
DNR Thurmond Tract. 1st season – Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons open Mon. – Sat.

U.S. Forest Service - Sedalia. Sept. 3 is Adult/Youth Only. 1st season – Saturdays Only Beginning Sept. 10. 2nd & 3rd seasons - Open Mon. - Sat.

U.S. Forest Service - Herbert Field. 1st season - Saturdays Only Beginning Sept. 3. 2nd & 3rd seasons - Open Mon. - Sat.

YORK
DNR - Draper Tract. 1st season – Sept. 3, 17; Oct. 8; Nov. 26; Dec. 31; Jan. 14, 28. Dove Hunting Only.

York County – Worth Mountain WMA. Sept. 3, 17; Oct. 8; Nov. 26; Dec. 31; Jan. 14, 28. Dove Hunting Only.

SPECIAL YOUTH DOVE HUNTS:

Eligibility for these hunts requires adults 21 years or older to bring 1 or 2 youths 15 years of age and younger. Youths 16 & 17 years of age may participate in the hunt with or without an accompanying adult. The following regulations also apply: (1) Adult must remain in the field and closely supervise participating youth at all times. (2) In parties of one adult and 2 youths, only one youth hunter may be handling a loaded firearm at any given time. (3) Adults are allowed to shoot. (4) Bag limit is 15 birds per youth participant. Birds harvested by individual hunters must be kept separate, and in no instance may an individual hunter harvest more than 15 birds.

ABBEVILLE COUNTY YOUTH HUNT
US Forest Service – Power of Partnerships Field. September 3.

CHARLESTON COUNTY YOUTH HUNT
Botany Bay Plantation WMA - September 3, 10; October 8; November 12.

OCONEE COUNTY ADULT/YOUTH HUNT
1st season – Saturdays only beginning Sept. 3. 2nd season – Open November 12, 19 Only. 3rd season – Closed.

ORANGEBURG COUNTY YOUTH HUNT
Santee Cooper - Santee Cooper WMA. September 3.

SUMTER COUNTY YOUTH HUNT
Manchester State Forest near Wedgefield Bland Tract - Field 1 near Wedgefield - September 3.

UNION COUNTY YOUTH HUNT
Sedalia Field (U.S. Forest Service) - September 3.

YORK COUNTY YOUTH HUNT
SCDNR - Draper WMA - September 3.

Statement of Need and Reasonableness:

Since existing regulations only apply to specific wildlife management areas, new regulations must be filed to establish seasons, bag limits and methods of hunting and taking of wildlife on new WMAs as well as expanding use opportunities on existing WMAs. Since the availability of specific fields changes each year and season dates change as allowed by Federal Regulation it is necessary to file Dove Field regulations annually. Because these hunts extend through January 31, 2023, it is necessary to refile these regulations.

Fiscal Impact Statement:

This amendment of Regulation 123-40 will result in increased public hunting opportunities which should generate additional State revenue through license sales. In addition, local economies should benefit from sales of hunting supplies, food and overnight accommodations. Sales taxes on these items will also directly benefit government.

Document No. 5144
CLEMSON UNIVERSITY
STATE LIVESTOCK-POULTRY HEALTH COMMISSION
CHAPTER 27
Statutory Authority: 1976 Code Sections 47-4-30 and 47-17-130

27-1023. State Meat Inspection Regulation.

Synopsis:

These regulations are being promulgated to modernize, clarify and update existing regulations which govern, to the extent authorized by S. C. Code, Title 47, Chapter 4, the inspection of meat and meat food products produced for intrastate commerce. These updated regulations are necessary to comply with the Federal Meat Inspection Act (21 USCA 661, Section 301) which established Federal-State Cooperative Meat Inspection Programs. This is a grant program with equal federal-state funding. A cooperating state is required to adopt regulations "at least equal to" those adopted by the federal government. This regulation will, in effect, adopt the current Federal Meat Inspection Regulations with some minor exceptions for some state specific requirements.

The Notice of Drafting was published in the *State Register* on August 26, 2022.

Instructions:

Print the regulation as shown below. All other items remain unchanged.

Text:

27-1023. State Meat Inspection Regulation.

A. Definitions.

1. Commission means the State Livestock-Poultry Health Commission, Clemson University.

2. Director means the Director, Livestock-Poultry Health Programs, Clemson University.

3. Custom Processor means the custom preparation by any person of carcasses, parts thereof, meat or meat food products derived from the slaughter by any individual of cattle, sheep, swine or goats of his own raising or from game animals, delivered by the owner thereof for such custom preparation and transportation in commerce of such custom prepared article, exclusively for the use in the household by the owner and members of the owners household and the owners non-paying guests and employees in an establishment permitted by the State Meat Inspection Department for that purpose.

B. Permit required; fee; application; refusal, revocation or suspension.

1. Custom processors shall secure a permit from the Commission.

2. The permit fee is twenty-five dollars ($25.00) annually or for part of a year. The permit year is July 1 to June 30. The fee must be retained by the Commission. The Commission by regulation may increase the fee to not more than fifty dollars ($50.00).

3. The Commission, for cause, may refuse to grant a permit, may revoke or modify a permit, or assess a civil penalty in accordance with Section 47-4-130, South Carolina Code of Laws (1976) as amended.

C. Adoption of Federal Meat Inspection Regulations.

The United States Department of Agriculture, Food Safety and Inspection Service, Meat Inspection Regulations, 9 CFR, Chapter III, Subchapter A, Parts 300-321, 325, 329, 332, 335, 352 and 354, and Subchapter E, Parts 412, 416-418, 424, 430, 441, 442 and 500 and all changes thereto in effect as of January 1, 2023, are hereby adopted as the State Meat Inspection Regulations, with exceptions as noted below.

D. Exceptions to the Federal Meat Inspection Regulations.

1. Subchapter A, Part 307, Section 307.5(a) – Overtime Inspection Service. Fees and charges for overtime inspection service will be established, as required, by the Commission.

2. Subchapter A, Part 307, Section 307.5(b) – Holiday Inspection Service. State holidays as designated by the State Budget and Control Board will be utilized by the state inspection program.

3. Subchapter A, Part 312 – Official Marks, Devices and Certificates. Official state marks, devices and certificates of inspection will be utilized by the state inspection program.

4. Subchapter A, Part 352, Section 352.5 – Holiday and Overtime Inspection Services. Fees and charges for overtime and state holiday inspection services will be established, as required by the Commission.

5. Subchapter A, Part 352, Section 352.7 – Marking Inspected Products. Official state marks, devices and certificates of inspection will be utilized by the state inspection program.

E. In addition to temporary suspension in whole or in part of inspection services, as provided for in this regulation, the Director may, when he determines that the operator of any official establishment or any subsidiary therein, acting within the scope of his office, employment or agency, has threatened to forcible assault or has forcibly assaulted, intimidated, harassed or interfered with any program employees in or on account of his official duties under the law, assess a civil penalty in accordance with Section 47-4-130(b), S.C. Code of Laws, (1976) as amended.

F. The complete text of these regulations is available for review at the Meat-Poultry Inspection Department, Livestock-Poultry Health Programs, Clemson University.

Fiscal Impact Statement:

No additional state funding is requested.

Statement of Rationale:

None.

Document No. 5143
CLEMSON UNIVERSITY
STATE LIVESTOCK-POULTRY HEALTH COMMISSION
CHAPTER 27
Statutory Authority: 1976 Code Sections 47-4-30, 47-19-30, and 47-19-170

27-1022. State Poultry Products Inspection Regulation.

Synopsis:

These regulations are being promulgated to modernize, clarify and update existing regulations which govern, to the extent authorized by S.C. Code, Title 47, Chapter 4, the inspection of poultry products produced for intrastate commerce. These updated regulations are necessary to comply with the federal Poultry Products Inspection Act (21 USCA 454, Section 5) which establishes Federal-State Cooperative Poultry Inspection Programs. This is a grant program with equal federal-state funding. A cooperating state is required to adopt regulations "at least equal to" those adopted by the federal government. This regulation will, in effect, adopt the current Federal Poultry Products Inspection Regulations with some minor exceptions for some state specific requirements.

The Notice of Drafting was published in the *State Register* on August 26, 2022.

Instructions:

Print the regulation as shown below. All other items remain unchanged.

Text:

27-1022. State Poultry Products Inspection Regulation.

A. Definitions.
1. Commission means the State Livestock-Poultry Health Commission, Clemson University.
2. Director means the Director, Livestock-Poultry Health Programs, Clemson University.

B. Adoption of Federal Poultry Products Regulations.
The United States Department of Agriculture, Food Safety and Inspection Service, Poultry Products Inspection Regulations, 9 CFR, Chapter III, Subchapter A, Parts 362 and 381 and Subchapter E. Parts 412, 416-418, 424, 430, 441, 442 and 500 and all changes thereto in effect as of January 1, 2023, are hereby adopted as the State Poultry Inspection Regulations, with exception as noted below.

C. Exceptions to the Federal Poultry Products Inspection Regulations.
(1) Subchapter A, Part 362, Voluntary Poultry Inspection Regulations, Section 362.5. Fees and charges for voluntary inspection services will be established, as required, by the Commission.
(2) Subchapter A, Part 381, Subpart G, Facilities for Inspection, Section 381.38. State holidays as designated by the State Budget and Control Board will be utilized by the state inspection program.
(3) Subchapter A, Part 381, Subpart G, Facilities for Inspection, Section 381.39. Fees and charges for overtime and holiday inspection services will be established, as required, by the Commission.
(4) Subchapter A, Part 381, Subpart M, Official Marks, Devices and Certificates. Official state marks, devices and certificates of inspection will be utilized by the state inspection program.

D. The complete text of these regulations is available for review at the Meat-Poultry Inspection Department, Livestock-Poultry Health Programs, Clemson University.

Fiscal Impact Statement:

No additional state funding is requested.

Statement of Rationale:

None.

Document No. 5139
DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
CHAPTER 61
Statutory Authority: 1976 Code Sections 48-1-10 et seq.

61-62. Air Pollution Control Regulations and Standards.

Synopsis:

Pursuant to the Pollution Control Act and the federal Clean Air Act, 42 U.S.C. Sections 7410, 7413, and 7416, the Department of Health and Environmental Control (Department) must ensure national primary and secondary ambient air quality standards are achieved and maintained in South Carolina. No state may adopt or enforce an emission standard or limitation less stringent than these federal standards or limitations pursuant to 42 U.S.C. Section 7416.

The United States Environmental Protection Agency (EPA) promulgates amendments to the Code of Federal Regulations (CFR) throughout each calendar year. Recent federal amendments at 40 CFR Parts 60 and 63 include revisions to New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories. The Department is amending R.61-62.60, South Carolina Designated Facility Plan and New Source Performance Standards, and R.61-62.63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories, to incorporate by reference federal amendments promulgated from January 1, 2021, through December 31, 2021.

The Department is also amending R.61-62.70, Title V Operating Permit Program, at 70.5(c), to correct an error in an earlier amendment as required by the EPA to maintain compliance with federal law.

The Department is also making other changes to R.61-62, Air Pollution Control Regulations and Standards, as deemed necessary to maintain compliance with federal law. These changes include corrections and other changes for internal consistency, clarification, punctuation, and overall improvement to the text of R.61-62.

The Administrative Procedures Act, S.C. Code Section 1-23-120(H)(1), exempts these amendments from General Assembly review, as the Department promulgates these amendments for compliance with federal law.

The Department had a Notice of Drafting published in the June 24, 2022, *South Carolina State Register*.

Instructions:

Amend R.61-62 pursuant to each individual instruction provided with the text of the amendments below.

Text:

61-62. Air Pollution Control Regulations and Standards.

Statutory Authority: 1976 Code Sections 48-1-10 et seq.

61-62.60, South Carolina Designated Facility Plan and New Source Performance Standards.

Regulation 61-62.60, Subpart Kb, shall be revised as follows:

Subpart Kb - "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984"

The provisions of 40 CFR Part 60 Subpart Kb, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart Kb			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 52	April 8, 1987	[52 FR 11429]
Revision	Vol. 52	June 16, 1987	[52 FR 22780]
Revision	Vol. 54	August 11, 1989	[54 FR 32973]
Revision	Vol. 62	October 8, 1997	[62 FR 52641]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 65	December 14, 2000	[65 FR 78268]
Revision	Vol. 68	October 15, 2003	[68 FR 59328]
Revision	Vol. 86	January 19, 2021	[86 FR 5013]

Regulation 61-62.60, Subpart IIII, shall be revised as follows:

Subpart IIII - "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines"

The provisions of 40 CFR Part 60 Subpart IIII, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart IIII			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 71	July 11, 2006	[71 FR 39154]
Revision	Vol. 76	June 28, 2011	[76 FR 37954]
Revision	Vol. 78	January 30, 2013	[78 FR 6674]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 81	July 7, 2016	[81 FR 44212]
Revision	Vol. 85	December 4, 2020	[85 FR 78412]
Revision	Vol. 86	June 29, 2021	[86 FR 34308]

Regulation 61-62.60, Subpart JJJJ, shall be revised as follows:

Subpart JJJJ - "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines"

The provisions of 40 CFR Part 60 Subpart JJJJ, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart JJJJ			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 73	January 18, 2008	[73 FR 3568]
Revision	Vol. 73	October 8, 2008	[73 FR 59034]
Revision	Vol. 78	January 30, 2013	[78 FR 6674]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 81	August 30, 2016	[81 FR 59800]
Revision	Vol. 85	October 7, 2020	[85 FR 63394]
Revision	Vol. 85	December 4, 2020	[85 FR 78412]
Revision	Vol. 86	June 29, 2021	[86 FR 34308]

61-62.63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories

Regulation 61-62.63, Subpart A, shall be revised as follows:

Subpart A - "General Provisions"

The provisions of 40 Code of Federal Regulations (CFR) Part 63 Subpart A, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart A			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 59	March 16, 1994	[59 FR 12430]
Revision	Vol. 59	April 22, 1994	[59 FR 19453]
Revision	Vol. 59	December 6, 1994	[59 FR 62589]
Revision	Vol. 60	January 25, 1995	[60 FR 4963]
Revision	Vol. 60	June 27, 1995	[60 FR 33122]
Revision	Vol. 60	September 1, 1995	[60 FR 45980]
Revision	Vol. 61	May 21, 1996	[61 FR 25399]
Revision	Vol. 61	December 17, 1996	[61 FR 66227]
Revision	Vol. 62	December 10, 1997	[62 FR 65024]
Revision	Vol. 63	May 4, 1998	[63 FR 24444]
Revision	Vol. 63	May 13, 1998	[63 FR 26465]
Revision	Vol. 63	September 21, 1998	[63 FR 50326]
Revision	Vol. 63	October 7, 1998	[63 FR 53996]
Revision	Vol. 63	December 1, 1998	[63 FR 66061]
Revision	Vol. 64	January 28, 1999	[64 FR 4300]
Revision	Vol. 64	February 12, 1999	[64 FR 7468]
Revision	Vol. 64	April 12, 1999	[64 FR 17562]
Revision	Vol. 64	June 10, 1999	[64 FR 31375]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 67	February 14, 2002	[67 FR 6968]
Revision	Vol. 67	February 27, 2002	[67 FR 9156]
Revision	Vol. 67	April 5, 2002	[67 FR 16582]
Revision	Vol. 67	June 10, 2002	[67 FR 39794]
Revision	Vol. 67	July 23, 2002	[67 FR 48254]
Revision	Vol. 68	February 18, 2003	[68 FR 7706]
Revision	Vol. 68	April 21, 2003	[68 FR 19375]
Revision	Vol. 68	May 6, 2003	[68 FR 23898]
Revision	Vol. 68	May 8, 2003	[68 FR 24653]
Revision	Vol. 68	May 20, 2003	[68 FR 27646]
Revision	Vol. 68	May 23, 2003	[68 FR 28606]
Revision	Vol. 68	May 27, 2003	[68 FR 28774]
Revision	Vol. 68	May 28, 2003	[68 FR 31746]
Revision	Vol. 68	May 29, 2003	[68 FR 32172]
Revision	Vol. 68	May 30, 2003	[68 FR 32586]
Revision	Vol. 68	November 13, 2003	[68 FR 64432]
Revision	Vol. 68	December 19, 2003	[68 FR 70960]
Revision	Vol. 69	January 2, 2004	[69 FR 130]
Revision	Vol. 69	February 3, 2004	[69 FR 5038]
Revision	Vol. 69	April 9, 2004	[69 FR 18801]
Revision	Vol. 69	April 19, 2004	[69 FR 20968]
Revision	Vol. 69	April 22, 2004	[69 FR 21737]
Revision	Vol. 69	April 26, 2004	[69 FR 22602]
Revision	Vol. 69	June 15, 2004	[69 FR 33474]
Revision	Vol. 69	July 30, 2004	[69 FR 45944]
Revision	Vol. 69	September 13, 2004	[69 FR 55218]

40 CFR Part 63 Subpart A			
Federal Register Citation	**Volume**	**Date**	**Notice**
Revision	Vol. 70	April 15, 2005	[70 FR 19992]
Revision	Vol. 70	May 20, 2005	[70 FR 29400]
Revision	Vol. 70	October 12, 2005	[70 FR 59402]
Revision	Vol. 71	February 16, 2006	[71 FR 8342]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 71	July 28, 2006	[71 FR 42898]
Revision	Vol. 71	December 6, 2006	[71 FR 70651]
Revision	Vol. 72	January 3, 2007	[72 FR 26]
Revision	Vol. 72	January 23, 2007	[72 FR 2930]
Revision	Vol. 72	July 16, 2007	[72 FR 38864]
Revision	Vol. 72	October 29, 2007	[72 FR 61060]
Revision	Vol. 72	November 16, 2007	[72 FR 64860]
Revision	Vol. 72	December 26, 2007	[72 FR 73180]
Revision	Vol. 72	December 28, 2007	[72 FR 74088]
Revision	Vol. 73	January 2, 2008	[73 FR 226]
Revision	Vol. 73	January 9, 2008	[73 FR 1738]
Revision	Vol. 73	January 10, 2008	[73 FR 1916]
Revision	Vol. 73	January 18, 2008	[73 FR 3568]
Revision	Vol. 73	February 7, 2008	[73 FR 7210]
Revision	Vol. 73	March 7, 2008	[73 FR 12275]
Revision	Vol. 73	July 23, 2008	[73 FR 42978]
Revision	Vol. 73	December 22, 2008	[73 FR 78199]
Revision	Vol. 74	June 25, 2009	[74 FR 30366]
Revision	Vol. 74	October 28, 2009	[74 FR 55670]
Revision	Vol. 75	September 9, 2010	[75 FR 54970]
Revision	Vol. 75	September 13, 2010	[75 FR 55636]
Revision	Vol. 76	February 17, 2011	[76 FR 9450]
Revision	Vol. 77	February 16, 2012	[77 FR 9304]
Revision	Vol. 77	April 17, 2012	[77 FR 22848]
Revision	Vol. 77	September 11, 2012	[77 FR 55698]
Revision	Vol. 78	January 30, 2013	[78 FR 6674]
Revision	Vol. 78	January 31, 2013	[78 FR 7138]
Revision	Vol. 78	February 1, 2013	[78 FR 7488]
Revision	Vol. 78	June 20, 2013	[78 FR 37133]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 79	March 27, 2014	[79 FR 17340]
Revision	Vol. 80	June 30, 2015	[80 FR 37365]
Revision	Vol. 80	August 19, 2015	[80 FR 50385]
Revision	Vol. 80	September 18, 2015	[80 FR 56699]
Revision	Vol. 80	October 15, 2015	[80 FR 62389]
Revision	Vol. 80	October 26, 2015	[80 FR 65469]
Revision	Vol. 80	December 1, 2015	[80 FR 75178]
Revision	Vol. 80	December 4, 2015	[80 FR 75817]
Revision	Vol. 81	August 30, 2016	[81 FR 59800]

40 CFR Part 63 Subpart A			
Federal Register Citation	**Volume**	**Date**	**Notice**
Revision	Vol. 82	January 18, 2017	[82 FR 5401]
Revision	Vol. 82	October 11, 2017	[82 FR 47328]
Revision	Vol. 82	October 16, 2017	[82 FR 48156]
Revision	Vol. 83	October 15, 2018	[83 FR 51842]
Revision	Vol. 83	November 14, 2018	[83 FR 56713]
Revision	Vol. 83	February 28, 2019	[84 FR 6676]
Revision	Vol. 84	March 4, 2019	[84 FR 7682]
Revision	Vol. 84	March 15, 2019	[84 FR 9590]
Revision	Vol. 85	February 25, 2020	[85 FR 10828]
Revision	Vol. 85	March 9, 2020	[85 FR 13524]
Revision	Vol. 85	March 12, 2020	[85 FR 14526]
Revision	Vol. 85	March 26, 2020	[85 FR 17244]
Revision	Vol. 85	July 2, 2020	[85 FR 39980]
Revision	Vol. 85	July 6, 2020	[85 FR 40386]
Revision	Vol. 85	July 7, 2020	[85 FR 40594]
Revision	Vol. 85	July 7, 2020	[85 FR 40740]
Revision	Vol. 85	July 8,2020	[85 FR 41100]
Revision	Vol. 85	July 9, 2020	[85 FR 41276]
Revision	Vol. 85	July 10, 2020	[85 FR 41411]
Revision	Vol. 85	July 10, 2020	[85 FR 41680]
Revision	Vol. 85	July 13, 2020	[85 FR 42074]
Revision	Vol. 85	July 22, 2020	[85 FR 44216]
Revision	Vol. 85	July 24, 2020	[85 FR 44960]
Revision	Vol. 85	July 28, 2020	[85 FR 45476]
Revision	Vol. 85	August 12, 2020	[85 FR 49084]
Revision	Vol. 85	August 13, 2020	[85 FR 49434]
Revision	Vol. 85	August 14, 2020	[85 FR 49724]
Revision	Vol. 85	October 7, 2020	[85 FR 63394]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	March 11, 2021	[86 FR 13819]
Revision	Vol. 86	November 19, 2021	[86 FR 66038]
Revision	Vol. 86	November 19, 2021	[86 FR 66045]
Revision	Vol. 86	November 19, 2021	[86 FR 66096]

Regulation 61-62.63, Subpart YY, shall be revised as follows:

Subpart YY - "National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards"

The provisions of 40 CFR Part 63 Subpart YY, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart YY			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 64	June 29, 1999	[64 FR 34854]

40 CFR Part 63 Subpart YY			
Federal Register Citation	**Volume**	**Date**	**Notice**
Revision	Vol. 64	November 22, 1999	[64 FR 63695]
Revision	Vol. 64	December 22, 1999	[64 FR 71852]
Revision	Vol. 66	November 2, 2001	[66 FR 55844]
Revision	Vol. 67	June 7, 2002	[67 FR 39301]
Revision	Vol. 67	July 12, 2002	[67 FR 46258, 46289]
Revision	Vol. 68	February 10, 2003	[68 FR 6635]
Revision	Vol. 70	April 13, 2005	[70 FR 19266]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 72	June 29, 2007	[72 FR 35663]
Revision	Vol. 79	October 8, 2014	[79 FR 60898]
Revision	Vol. 85	July 6, 2020	[85 FR 40386]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	November 19, 2021	[86 FR 66096]

Regulation 61-62.63, Subpart IIII, shall be revised as follows:

Subpart IIII - "National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks"

The provisions of 40 CFR Part 63 Subpart IIII, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart IIII			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 69	April 26, 2004	[69 FR 22602]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 71	December 22, 2006	[71 FR 76922]
Revision	Vol. 72	April 24, 2007	[72 FR 20227]
Revision	Vol. 85	July 8, 2020	[85 FR 41100]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	November 19, 2021	[86 FR 66038]

Regulation 61-62.63, Subpart KKKK, shall be revised as follows:

Subpart KKKK - "National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans"

The provisions of 40 CFR Part 63 Subpart KKKK, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart KKKK			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 68	November 12, 2003	[68 FR 64432]
Revision	Vol. 71	January 6, 2006	[71 FR 1378]

40 CFR Part 63 Subpart KKKK			
Federal Register Citation	**Volume**	**Date**	**Notice**
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 85	February 25, 2020	[85 FR 10828]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	November 19, 2021	[86 FR 66038]

Regulation 61-62.63, Subpart VVVV, shall be revised as follows:

Subpart VVVV - "National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing"

The provisions of 40 CFR Part 63 Subpart VVVV, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart VVVV			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 66	August 22, 2001	[66 FR 44218]
Revision	Vol. 66	October 3, 2001	[66 FR 50504]
Revision	Vol. 85	March 20, 2020	[85 FR 15960]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	November 19, 2021	[86 FR 66038]

Regulation 61-62.63, Subpart KKKKK, shall be revised as follows:

Subpart KKKKK - "National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing"

The provisions of 40 CFR Part 63, Subpart KKKKK, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart KKKKK			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 68	May 16, 2003	[67 FR 26690]
Revision	Vol. 68	May 28, 2003	[68 FR 31744]
Revision	Vol. 71	April 20, 2006	[71 FR 20445]
Revision	Vol. 71	June 23, 2006	[71 FR 36014]
Revision	Vol. 80	October 26, 2015	[80 FR 65469]
Revision	Vol. 80	December 4, 2015	[80 FR 75817]
Revision	Vol. 84	November 1, 2019	[84 FR 58601]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	November 19, 2021	[86 FR 66038]

Regulation 61-62.63, Subpart MMMMM, shall be revised as follows:

Subpart MMMMM - "National Emission Standards for Hazardous Air Pollutants: Flexible Polyurethane Foam Fabrication Operations"

The provisions of 40 CFR Part 63 Subpart MMMMM, as originally published in the Federal Register and as

subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart MMMMM			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 68	April 14, 2003	[68 FR 18062]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	November 18, 2021	[86 FR 64385]

Regulation 61-62.63, Subpart SSSSS, shall be revised as follows:

Subpart SSSSS - "National Emission Standards for Hazardous Air Pollutants for Refractory Products Manufacturing"

The provisions of 40 CFR Part 63 Subpart SSSSS, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart SSSSS			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 68	April 16, 2003	[68 FR 18730]
Revision	Vol. 71	February 13, 2006	[71 FR 7415]
Revision	Vol. 71	April 14, 2006	[71 FR 19435]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 85	November 19, 2020	[85 FR 73854]
Revision	Vol. 86	November 19, 2021	[86 FR 66045]

Regulation 61-62.63, Subpart OOOOOO, shall be revised as follows:

Subpart OOOOOO - "National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources"

The provisions of 40 CFR Part 63 Subpart OOOOOO, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart OOOOOO			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 72	July 16, 2007	[72 FR 38864]
Revision	Vol. 73	March 26, 2008	[73 FR 15923]
Revision	Vol. 86	November 18, 2021	[86 FR 64385]

61-62.70, Title V Operating Permit Program.

Regulation 61-62.70.5 (c), shall be revised as follows:

(c) Standard application form and required information. Information as described below for each emissions unit at a Part 70 source shall be included in a Department-approved application. Air emissions or air emission

units that are insignificant are exempted. However, for these emission units which are exempted, a list of the emission units must be included in the application. "Insignificant Activity" generally means any air emissions or air emissions unit at a plant that has the potential to emit less than five tons per year (5 tpy) of any criteria pollutant or less than one thousand pounds (1000 lbs) per year of any hazardous air pollutant or any compound listed in Regulation 61-62.5, Standard No. 8, Toxic Air Pollutants. The Department may determine that certain types or classes of units may be considered insignificant at higher emission levels, or that, due to the nature of the pollutant(s) emitted, a unit may be considered significant at a lower emission rate. The Department shall maintain a list subject to EPA approval of air emissions or air emission units which are considered to be insignificant. No emission or activity can be excluded from a Title V operating permit to the extent it is needed to determine compliance with an applicable requirement, as defined under Section 70.2(f). An application may not omit information needed to determine the applicability of, or to impose, any applicable requirement, or to evaluate the fee amount required under the schedule approved pursuant to Section 70.9. The Department-approved forms and attachments shall include the elements specified below:

Statement of Need and Reasonableness:

The following presents an analysis of the factors listed in 1976 Code Sections 1-23-115(C)(1)-(3) and (9)-(11):

DESCRIPTION OF REGULATION: R.61-62, Air Pollution Control Regulations and Standards.

Purpose: The EPA promulgated amendments to federal air quality regulations in 2021. The recent federal amendments include revisions to New Source Performance Standards (NSPS) mandated by 42 U.S.C. Section 7411; and revisions to federal National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories mandated by 42 U.S.C. Section 7412. The Department, therefore, amends R.61-62 to incorporate these amendments to federal standards promulgated from January 1, 2021, through December 31, 2021. Additionally, the Department amends R.61-62.70, Title V Operating Permit Program, at 70.5(c), to correct an error in an earlier amendment as required by the EPA to maintain compliance with federal law. The Department also makes corrections for internal consistency, clarification, and codification, to improve the overall text as necessary for compliance with federal law.

Legal Authority: 1976 Code Sections 48-1-10 et seq., and the Clean Air Act, 42 U.S.C. Sections 7410, 7413, and 7416.

Plan for Implementation: The amendments will take legal effect upon publication in the State Register. Department personnel will then take appropriate steps to inform the regulated community of the amendments. Additionally, a copy of the regulation will be posted on the Department's website, accessible at www.scdhec.gov/regulations-table. Printed copies may also be requested, for a fee, from the Department's Freedom of Information Office.

DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The EPA promulgates amendments to its air quality regulations throughout each calendar year. Federal amendments in 2021 included revised NSPS rules and NESHAPs for Source Categories. The Department adopts these federal amendments to maintain compliance with federal law, as the EPA has delegated South Carolina authority for implementation and enforcement of these federal regulations. These amendments are reasonable, as they promote consistency and ensure compliance with both state and federal regulations. These amendments include the correction of an error in an earlier amendment as required by the EPA to maintain compliance with federal law These amendments also include corrections for internal consistency, clarification, and codification, to improve the overall text as necessary for compliance with federal law.

DETERMINATION OF COSTS AND BENEFITS:

There is no anticipated increase in costs to the state or its political subdivisions resulting from these revisions. The amendments adopted are already in effect and applicable to the regulated community as a matter of federal law, thus the amendments do not present a new cost to the regulated community. The amendments incorporate the revisions to the EPA regulations, which the Department implements pursuant to federal delegation and the authority granted by Section 48-1-50 of the Pollution Control Act. The amendments benefit the regulated community by clarifying and updating the regulations and increasing their ease of use.

UNCERTAINTIES OF ESTIMATES:

There are no uncertainties of estimates relative to the costs to the state or its political subdivisions.

EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH:

Adoption of the recent changes in federal regulations through the amendments to R.61-62 provides continued protection of the environment and public health.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

The state's authority to implement federal requirements, which are beneficial to the public health and environment, would be compromised if these amendments were not adopted in South Carolina.

Document No. 5135
DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
CHAPTER 61
Statutory Authority: 1976 Code Sections 44-55-10 et seq.

61-58. State Primary Drinking Water Regulations.

Synopsis:

Pursuant to Pursuant to 1976 Code Sections 44-55-10 et seq., the Department of Health and Environmental Control ("Department") amends R.61-58 to adopt federal regulations commonly referred to as the Lead and Copper Rule Revisions. These amendments were promulgated by the United States Environmental Protection Agency ("EPA") in a final rule published in the *Federal Register* on January 15, 2021, (86 FR 4198). The amendments revise many aspects of the current regulations with respect to requirements for public water systems to monitor for lead and copper in drinking water, including requirements pertaining to sample site selection, monitoring procedures, corrosion control, and public education. In addition, these proposed amendments require public water systems to offer to sample lead in drinking water for schools and child care facilities in their service areas. The Department also makes other changes to R.61-58 as deemed necessary to maintain compliance with federal law and improve the overall text of R.61-58, including corrections or other changes for internal consistency, clarification, reference, punctuation, codification, formatting, and spelling.

The Administrative Procedures Act, S.C. Code Section 1-23-120(H)(1), exempted these amendments from General Assembly review, as the Department promulgates these amendments for compliance with federal law.

The Department had a Notice of Drafting published in the March 25, 2022, South Carolina State Register.

Section-by-Section Discussion of Amendments:

Section	Type of Change	Purpose
R.61-58.B	Addition, Revision, Reorganization	Adds several definitions and revises others to match federal amendments. Definitions recodified to reflect proposed amendments.
R.61-58.6.B	Addition	Adds requirements for public notification when the lead action level is exceeded.
R.61-58.6.E	Addition	Adds exceeding the lead action level to the list of violations or other situations requiring Tier 1 public notice and requires notice to the EPA Administrator.
Appendix A to R.61-58.6	Revision	Updates citations for lead and copper action level exceedances.
Appendix B to R.61-58.6	Revision	Revises health effects language for lead and revises health effects language related to the Revised Total Coliform Rule to correct errors in previous amendments to make the language consistent with federal regulations.
R.61-58.11.B	Revision	Revises general requirements for lead and copper in drinking water.
R.61-58.11.C	Revision	Revises the applicability of corrosion control treatment steps to small, medium-size, and large water systems.
R.61-58.11.D	Revision	Revises the description of corrosion control treatment requirements.
R.61-58.11.E	Revision	Revises treatment requirements for lead in source water.
R.61-58.11.F	Revision	Revises lead service line inventory and replacement requirements.
R.61-58.11.G	Revision	Revises lead and copper public education and supplemental monitoring and mitigation requirements.
R.61-58.11.H	Revision	Revises monitoring requirements for lead and copper in tap water.
R.61-58.11.I	Revision	Revises monitoring requirements for water quality parameters.
R.61-58.11.J	Revision	Revises monitoring requirements for lead and copper in source water.
R.61-58.11.K	Revision	Revises lead and copper analytical methods requirements.

R.61-58.11.L	Revision	Revises reporting requirements for lead and copper.
R.61-58.11.M	Revision	Revises recordkeeping requirements for lead and copper data.
R.61-58.11.N	Addition	Adds requirements for public water systems to offer to monitor lead in drinking water for schools in their service areas.
R.61-58.11.O	Addition	Adds small water system compliance flexibility for lead in drinking water.
R.61-58.12.C	Addition	Adds requirements to include instructions to access lead service line inventory and lead tap sampling results to a public water system's annual Consumer Confidence Report.
R.61-58.12.D	Revision	Revises the public health information language for lead that is to be included in a public water system's annual Consumer Confidence Report.
Appendix D. Consumer Confidence Reports: Regulated Contaminants	Revision	Revise the lead health effects language required in a public water system's annual Consumer Confidence Report
R.61-58.16.D	Revision	Revises the requirement for evaluation of the treatment component during a sanitary survey for ground water systems to include corrosion control treatment and water quality parameters as applicable.

Instructions:

Amend R.61-58 pursuant to each individual instruction provided below with the text of the amendments.

Text:

61-58. State Primary Drinking Water Regulations.

Statutory Authority: 1976 Code Sections 44-55-10 et seq.

Amend R.61-58.B. Definitions to read:

(1) "Act" means the State Safe Drinking Water Act of 1976, and amendments.

(2) "Action level" is the concentration of lead or copper in water specified in R.61-58.11.B(1), Lead and Copper Action Levels, which determines requirements under R.61-58.11, Control of Lead and Copper. The action for lead is 0.015 mg/L and the action level for copper is 1.3 mg/L.

(3) "Administrator" means the Administrator of the United States Environmental Protection Agency.

(4) “Aerator” means the device embedded in the water faucet to enhance air flow with the water stream and to prevent splashing.

(5) "Annular space" means the space between the well casing and the formation or the space between the inner casing and outer casing where two casings are used.

(6) "Aquifer" means a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of groundwater to wells and springs.

(7) "Aquifer Storage and Recovery (ASR) Well" means a water well which allows potable water to be injected into a subsurface aquifer to be recovered by pumping at a later date.

(8) "Artificial filter" means filter material which is placed in the annular space to increase the effective diameter of the well, and to prevent fine-grained sediments from entering the well.

(9) "Backflow prevention device" means any device approved by the Department for use in preventing backflow under prescribed limited conditions of use.

(10) “Bag filters” are pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed of a non-rigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to outside.

(11) “Bank filtration” is a water treatment process that uses a well to recover surface water that has naturally infiltrated into ground water through a river bed or bank(s). Infiltration is typically enhanced by the hydraulic gradient imposed by a nearby pumping water supply or other well(s).

(12) “Bedrock” means the parent solid rock formation underlying weathered rock and soil.

(13) "Best available technology" or "BAT" means the best technology, treatment techniques, or other means which either the Department or the Environmental Protection Agency (EPA) finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration).

(14) "Board" means the South Carolina Board of Health and Environmental Control charged with responsibility for implementation of the Safe Drinking Water Act.

(15) "Boil Water Notice/Advisory" means a notice, whether written or verbal, issued by the Department, or the owner or operator of a public water system, notifying the users of the water system that the water is/may be contaminated and to boil the water (vigorous rolling boil for at least one minute) prior to using it for drinking or cooking. The notice shall give the reason for its issuance and corrective actions being taken.

(16) "Booster Pump" means any pump installed within a water distribution system for the purpose of increasing the water pressure in the water distribution system, including distribution storage facilities downstream from the pump. The term booster pump does not apply to the so called low service and high service pumps at water treatment plants.

(17) "Business Plan" for the purpose of these regulations means a document consisting of three sub- plans, a "Facilities Plan", a "Management Plan", and a "Financing Plan" which is intended to show how a water system

will be self-sustaining and have the commitment and the financial, managerial and technical capability to consistently comply with the State Safe Drinking Water Act and these Regulations.

(18) “Cartridge filters” are pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed as rigid or semi-rigid, self-supporting filter elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside.

(19) "Centralizer" means device to keep the casing and screen aligned in the center of the borehole to ensure proper emplacement of grout around the casing and artificial filter around the screens.

(20) "Certified Laboratory" means a laboratory approved by the Department under Regulation 61- 81.

(21) "Certified Tester" means any person holding an up-to-date backflow prevention assembly tester certification card issued by the Department. Certified testers fall into one of the following classifications:

(a) General Tester -any person who has successfully completed an approved backflow prevention training and certification course which is sponsored by or approved by the Department, and who has personal possession of or whose employer owns a backflow prevention assembly test kit. This person provides the service of testing backflow prevention assemblies to the general public.

(b) Inspector Tester -any person with the same qualifications as the General Tester, except the Inspector Tester must be employed by a municipality, water district, subdivision, or other public water system. The Inspector Tester is normally involved in the management of a backflow prevention program, and does not sell his services to the general public.

(c) Limited Tester -any person with the same qualifications as the General Tester except the prescribed test(s) is (are) conducted only on backflow prevention assemblies which are owned by his employer. The Limited Tester does not provide testing services to the general public.

(d) Manufacturer’s Agent -any person with the same qualifications as the General Tester except the prescribed test(s) is (are) conducted as an extension of his duties as a representative of a particular backflow prevention company.

(22) "Certified Well Driller" means any person currently certified by the State Environmental Certification Board to practice as a well driller in South Carolina.

(23) “Child care facility” means a location that houses a licensed provider of child care, day care, or early learning services to children, as determined by the state, local, or tribal licensing agency.

(24) "Clay" means fine-grained inorganic material (grains less than 0.0005 mm in diameter) which has very low permeability and is plastic.

(25) "Clean compliance history" is, for the purposes of R.61-58.17, a record of no MCL violations under R.61-58.5.F; no monitoring violations under R.61-58.5.G or R.61-58.17; and no coliform treatment technique trigger exceedances or treatment technique violations under R.61-58.17.

(26) "Coagulation" means a process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into flocs.

(27) "Coliform Bacteria" means all aerobic and facultative anaerobic, gram-negative, non-spore forming, rod-shaped bacteria which ferment lactose with gas formation within forty eight hours at thirty-five degrees Celsius.

(28) “Combined distribution system” is the interconnected distribution system consisting of the distribution systems of wholesale systems and of the consecutive systems that receive finished water.

(29) "Commissioner" means the duly constituted Commissioner of the Department or his authorized agent.

(30) "Community Water Systems" means a public water system which serves at least fifteen service connections used by year-round residents or regularly serves at least twenty-five year-round residents. This may include, but not be limited to, subdivisions, municipalities, mobile home parks, apartments, etc.

(31) "Compliance cycle" means the nine-year calendar year cycle during which public water systems must monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar year cycle begins January 1, 1993 and ends December 31, 2001; the second begins January 1, 2002 and ends December 31, 2010; the third begins January 1, 2011 and ends December 31, 2019.

(32) "Compliance period" means a three-year calendar year period within a compliance cycle. Each compliance cycle has three three-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993 to December 31, 1995; the second from January 1, 1996 to December 31, 1998; the third from January 1, 1999 to December 31, 2001.

(33) "Comprehensive Performance Evaluation" (CPE) is a thorough review and analysis of a treatment plant’s performance-based capabilities and associated administrative, operation and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant’s capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements. For purposes of compliance with R.61-58.10.H and (I) the comprehensive performance evaluation must consist of at least the following components: assessment of plant performance; evaluation of major unit processes; identification and prioritization of performance limiting factors; assessment of the applicability of comprehensive technical assistance; and preparation of a CPE report.

(34) "Cone of Depression" means the depression in the water table or potentiometric surface in an aquifer caused by pumping water from a well and usually having the shape of an inverted cone.

(35) "Confluent growth" means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

(36) “Consecutive system” is a public water system that receives some or all of its finished water from one or more wholesale systems. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

(37) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(38) "Conventional filtration treatment" means a series of processes including coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.

(39) "Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

(40) "Cross-connection" means any actual or potential connection or structural arrangement between a public water supply and any other source or system through which it is possible to introduce into any part of the potable

system any used water, industrial fluid, gas or substance other than the intended potable water which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices and other temporary or permanent devices through which or because of which backflow can or may occur are considered to be cross-connections.

(41) "CT" or "CTcalc" is the product of "residual disinfectant concentration" (C) in mg/L determined before or at the first customer, and the corresponding "disinfectant contact time (T) in minutes, i.e., "C" × "T". If a public water system applies disinfectants at more than one point prior to the first customer, it shall determine the CT of each disinfectant sequence before or at the first customer to determine the total percent inactivation or "total inactivation ratio." In determining the total inactivation ratio, the public water system shall determine the residual disinfectant concentration of each disinfection sequence and corresponding contact time before any subsequent disinfection application point(s). "CT_{99}." is the CT value required for 99.9 percent (3-log) inactivation of Giardia lamblia cysts. CT_{99}. for a variety of disinfectants and conditions appear in Tables 1.1 -1.6, 2.1, and 3.1 of R.61-58.10.F(2)(c).

$$\frac{CTcalc}{CT_{99.9}}$$

is the inactivation ratio. The sum of the inactivation ratios, or total inactivation ratio shown as

$$\sum \frac{(CTcalc)}{(CT_{99.9})}$$

is calculated by adding together the inactivation ratio for each disinfection sequence. A total inactivation ratio equal to or greater than 1.0 is assumed to provide a 3-log inactivation of Giardia lamblia cysts.

(42) "Dedicated Fire Line" means a water line connected to a public water system which is designed and used solely for a fire protection system. Such lines must be provided with an acceptable and approved backflow prevention device and must not connect at any point downstream of that device with water lines or fixtures that are used for potable water.

(43) "Department" means the South Carolina Department of Health and Environmental Control, including personnel thereof authorized and empowered by the Board to act on behalf of the Department or Board.

(44) "Development" means repairing damage to the aquifer caused by drilling procedures and increasing the porosity and permeability of the geologic materials surrounding the intake portion of the well.

(45) "Diatomaceous earth filtration" means a process resulting in substantial particulate removal in which (1) a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum), and (2) while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake.

(46) "Direct filtration" means a series of processes including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal.

(47) "Disinfectant" means any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines and ozone added to water in any part of the treatment or distribution process, that is intended to kill or inactivate pathogenic microorganisms.

(48) "Disinfectant contact time" ("T" in CT calculations) means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration ("C") is measured. Where only one "C" is

measured, "T" is the time in minutes that it takes for water to move from the point of disinfectant application to a point before or where residual disinfectant concentration ("C") is measured. Where more than one "C" is measured, "T" is (a) for the first measurement of "C", the time in minutes that it takes for water to move from the first or only point of disinfectant application to a point before or at the point where the first "C" is measured and (b) for subsequent measurements of "C", the time in minutes that it takes for water to move from the previous "C" measurement point to the "C" measurement point for which the particular "T" is being calculated. Disinfectant contact time in pipelines shall be calculated based on "plug flow" by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs shall be determined by tracer studies or an equivalent demonstration.

(49) "Disinfected" means that the water is free of harmful or pathogenic organisms.

(50) "Disinfection" means a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

(51) "Disinfection profile" is a summary of daily Giardia lamblia inactivation through the treatment plant. The procedure for developing a disinfection profile is contained in R.61-58.10.H(3) (Disinfection profiling and bench marking) and in R.61-58.10.I(4) (Disinfection profile).

(52) "Dispensing Station" means a facility where additional treatment is provided to water from an approved public water system, and that treated water is available to the general public. This does not apply to point of use devices in public buildings (e.g., restaurants and cafeterias, etc.).

(53) "Distribution Treatment Plant" means any facility located within the distribution system capable of altering the physical, chemical, radiological or bacteriological quality of the water in a public water system (i.e. chlorine booster station).

(54) "Domestic or other non-distribution system plumbing problem" means a coliform contamination problem in a public water system with more than one service connection that is limited to the specific service connection from which the coliform-positive sample was taken.

(55) "Dose equivalent" means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified by the International Commission on Radiological Units and Measurements (ICRU).

(56) "Drawdown" means the difference in levels between the static water level in a well and the surface of the depressed water level that occurs when the well is pumped.

(57) "Drilling Fluid" means a water or air based fluid used in drilling to remove cuttings from the hole, to clean and cool the drill bit, to reduce friction between the drill pipe and the sides of the hole and to seal the bore hole.

(58) ‘‘Dry Line’’ means a water line project not connected to a source at the time application is made for the permit to construct.

(59) “Dual sample set” is a set of two samples collected at the same time and same location, with one sample analyzed for TTHM and the other sample analyzed for HAA5. Dual sample sets are collected for the purposes of conducting an IDSE under subpart U of this part and determining compliance with the TTHM and HAA5 MCLs under subpart V of this part.

(60) "Dug well" means large diameter (24 to 60-inch) well generally of low yield which is usually excavated by hand and which penetrates only a few feet below the water table.

(61) "Effective corrosion inhibitor residual" for the purpose of R.61-58.11, Control of Lead and Copper, means a concentration sufficient to form a passivating film on the interior walls of a pipe.

(62) "Effective (grain) size" means the sieve size that retains 90 percent of the materials.

(63) “Elementary school,” for the purposes of R.61-58.11 only, means a school classified as elementary by state and local practice and composed of any span of grades (including pre-school) not above grade eight (8).

(64) "Emergency" means any event which adversely impacts the ability of the system to produce or deliver safe drinking water to the consumer.

(65) "Emergency Well" means a well that is operable and connected to the distribution system, but is not routinely operated or sampled. Such wells are only available to be used during emergency situations and only in conjunction with a boil water advisory.

(66) "Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.

(67) "Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening.

(68) "Expansion" means installation of additions, extensions, changes, or alterations to a public water system’s existing source, transmission, storage or distribution facilities which will enable the system to increase in size its existing service area and/or number of authorized service connections.

(69) "Facilities Plan" means a document which consists of an assessment of the current and foreseeable water supply needs of a water system’s service area; a detailed description of alternatives considered for meeting those needs; detailed cost estimates for the construction, operation and maintenance of the different alternatives, and the rationale for the alternative selected. For existing systems, the description of alternatives would include but not be limited to: a detailed description of existing facilities (source, treatment and distribution); description of any upgrade necessary to bring the existing facilities into compliance with the Act and these regulations; an assessment of the ability of the existing facilities, along with any necessary upgrade, to supply the current and foreseeable water supply needs of the area (including the ability to comply with any foreseeable regulatory changes); and a description of any other alternatives considered for meeting the water supply needs.

(70) "Federal Act" means the Federal Safe Drinking Water Act, as amended.

(71) “Fifth liter sample,” for purposes of R.61-58.11, Control of Lead and Copper, means a one-liter (1 L) sample of tap water collected in accordance with R.61-58.11.H(2).

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

(73) "Filtration" means a process for removing particulate matter from water by passage through porous media.

(74) "Financial Plan" means a document which consists of projections that a water system’s revenues and cash flow will be sufficient for meeting the cost of construction, operation and maintenance for at least five full years from the initiation of operations. The financial plan must also include assurances deemed necessary for the system to remain viable. Such assurances may include but not be limited to: 1) a projection of rates showing a significant coverage ratio, 2) escrow funds, 3) bonding and 4) letter of credit.

(75) “Find-and-fix” means the requirements under R.61-58.11, Control of Lead and Copper, that water systems must perform at every tap sampling site that yielded a lead result above fifteen micrograms per liter (15 µg/L).

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

(77) "Fire Flow" means five hundred (500) gallons per minute or the flow required for fire protection by the local government or public water system, whichever is greater.

(78) "First draw sample" means the first one-liter (1 L) sample of tap water collected in accordance with R.61-58.11.H(2)(b).

(79) "Flocculation" means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

(80) “Flowing stream” is a course of running water flowing in a definite channel.

(81) "Formation" means any substantial interval penetrated during the drilling of a well in which the geologic materials have distinct compositional characteristics with respect to adjacent overlying and underlying intervals.

(82) "Fracture Zone" means any level or interval penetrated during drilling which has void spaces caused by breakage of the formation.

(83) “Full lead service line replacement” means the replacement of a lead service line (as well as galvanized service lines requiring replacement), as defined in R.61-58.B, that results in the entire length of the service line, regardless of service line ownership, meeting the federal Safe Drinking Water Act (SDWA) Section 1417 definition of lead-free applicable at the time of the replacement. A full lead service line replacement includes a replacement where only one portion of the service line is lead, such as where a partial lead service line was previously conducted, as long as, upon completion of the replacement, the entire service line meets the SDWA Section 1417 definition of lead-free applicable at the time of the replacement. Galvanized service lines that are or were downstream of a lead service line must also be replaced for a service line to be a full lead service line replacement. A lead service line that is left in place in the ground but remains out of service may be full lead service line replacement where a new non-lead service line is installed for use instead of the out-of-service lead service line.

(84) "GAC10" means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days, except that the reactivation frequency for GAC10 used as a best available technology for compliance with R.61-58.5.P(2)(b) MCLs shall be 120 days.

(85) “GAC20” means granular activated carbon filter beds with an empty-bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days.

(86) “Galvanized service line” means iron or steel piping that has been dipped in zinc to prevent corrosion and rusting.

(87) "Geologic Material" means naturally occurring matter derived from or consisting of rock and sediment.

(88) "Geophysical logging" means any number of techniques that measure some electrical, chemical or radioactive property of the subsurface, either characteristic of the ground water or of the rocks in which the ground water occurs.

(89) “Gooseneck, pigtail, or connector” is a short section of piping, typically not exceeding two feet (2 ft), which can be bent and used for connections between rigid service piping. For purposes of this subpart, lead goosenecks, pigtails, and connectors are not considered to be part of the lead service line, but may be required to be replaced pursuant to R.61-58.11.F(3).

(90) "Gross alpha particle activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

(91) "Gross beta particle activity" means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.

(92) "Groundwater" means subsurface water found in void spaces in geologic materials within the zone of saturation.

(93) "Groundwater Treatment Plant" means any facility capable of altering the physical, chemical, radiological or bacteriological quality of groundwater for public consumption in a public water system.

(94) "Ground water under the direct influence of surface water (GWUDI)" means any water beneath the surface of the ground with (1) significant occurrence of insects or other microorganisms, algae, or large-diameter pathogens such as Giardia lamblia, or (2) Cryptosporidium, or (3) significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions. Direct influence shall be determined for individual sources in accordance with criteria established by the Department. The Department’s determination of direct influence may be based on site-specific measurements of water quality and/or documentation of well construction characteristics and geology with field evaluation.

(95) "Grout" means a fluid mixture of cement and water (neat cement) of a consistency that can be forced through a pipe and placed as required. Various additives, such as sand, bentonite, and hydrated lime, may be included in the mixture to meet certain requirements. For example, sand is added when a considerable volume of grout is needed.

(96) "Haloacetic acids (five)" (HAA5) mean the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two significant figures after addition.

(97) "Halogen" means one of the chemical elements chlorine, bromine or iodine.

(98) "Hardpan" means hard impervious layer cemented by relatively insoluble secondary material.

(99) "High Rate Gravity Filter" means any gravity filter which filters water at a rate in excess of four (4) gallons per minute per square foot.

(100) "Initial compliance period" means the first full three-year compliance period which begins at least 18 months after promulgation, except for contaminants listed at R.61-58.5.B(2)(l)-(p) and those listed at R.61-58.5.D(2)(b)(xix)-(xxxiii) and R.61-58.5.N(2)(s)-(u), initial compliance period means the first full three-year compliance period after promulgation for systems with 150 or more service connections (January 1993-December 1995), and first full three-year compliance period after the effective date of the regulation (January 1996-December 1998) for systems having fewer than 150 service connections.

(101) “Lake/reservoir” refers to a natural or man made basin or hollow on the Earth’s surface in which water collects or is stored that may or may not have a current or single direction of flow.

(102) "Large water system" for the purpose of R.61-58.11, Control of Lead and Copper, only, means a water system that serves more than 50,000 persons.

(103) "Lead free" means: (i) when used with respect to solders and flux, those containing not more than 0.2 percent lead; and (ii) not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures as defined in 40 CFR 143.12.

(104) “Lead service line” means a portion of pipe that is made of lead, which connects the water main to the building inlet. A lead service line may be owned by the water system, owned by the property owner, or both. For the purposes of this subpart, a galvanized service line is considered a lead service line if it ever was or is currently downstream of any lead service line or service line of unknown material. If the only lead piping serving the home is a lead gooseneck, pigtail, or connector, and it is not a galvanized service line that is considered a lead service line the service line is not a lead service line. For purposes of R.61-58.11.H(1) only, a galvanized service line is not considered a lead service line.

(105) “Lead status unknown service line” means a service line that has not been demonstrated to meet or not meet the federal SDWA Section 1417 definition of lead free. It is not necessary to physically verify the material composition (for example, copper or plastic) of a service line for its lead status to be identified (e.g., records demonstrating the service line was installed after a municipal, state, or federal lead ban).

(106) “Lead trigger level” means a particular concentration of lead in water that prompts certain activities under R. 61-58.11, Control of Lead and Copper. The trigger level for lead is a concentration of ten micrograms per liter (10µg/L).

(107) "Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires Disease.

(108) "Level 1 assessment" is an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. It is conducted by the system operator or owner. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g., whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The system must conduct the assessment consistent with any Department directives that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system.

(109) "Level 2 assessment" is an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. A Level 2 assessment provides a more detailed examination of the system (including the system’s monitoring and operational practices) than does a Level 1 assessment through the use of more comprehensive investigation and review of available information, additional internal and external resources, and other relevant practices. It is conducted by an individual approved by the Department, which may include the system operator. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g., whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The system must conduct the assessment consistent with any Department directives that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system. The system must comply with any expedited actions or additional actions required by the Department in the case of an E. coli MCL violation.

(110) "Limestone" means a sedimentary formation composed chiefly of calcium carbonate, consolidated or unconsolidated, which may be in the form of shell pieces or calcareous muds or sands.

(111) "Locational running annual average (LRAA)" is the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

(112) "Man-made beta particle and photon emitters" means all radionuclides emitting beta particles and/or photons listed in Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure, NBS Handbook 69, except the daughter products of thorium-232, uranium-235, and uranium-238.

(113) "Management Plan" means a document which consists of the identification of a water system's owner; description of the management structure; an organizational chart; staffing requirements and duties; identification of any outside services and a copy of any service agreements; a copy of the system's operation and maintenance procedures required by R.61-58.7.B; and a detailed estimate of costs for the operation and maintenance of the system as it relates to the management plan, unless included in the cost estimate for the facilities plan.

(114) "Marl" means calcareous clay. In South Carolina, the term is mostly applied to the Cooper Marl or Eocene Age, characterized by its dark greenish drab to grayish green color.

(115) "Maximum contaminant level" means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

(116) "Maximum residual disinfectant level" (MRDL) means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. For chlorine and chloramines, a PWS is in compliance with the MRDL when the running annual average of monthly averages of samples taken in the distribution system, computed quarterly, is less than or equal to the MRDL. For chlorine dioxide, a PWS is in compliance with the MRDL when daily samples are taken at the entrance to the distribution system and no two consecutive daily samples exceed the MRDL. MRDLs are enforceable in the same manner as maximum contaminant levels under Section 1412 of the Safe Drinking Water Act. There is convincing evidence that addition of a disinfectant is necessary for control of waterborne microbial contaminants. Notwithstanding the MRDLs listed in R.61-58.5.Q, operators may increase residual disinfectant levels of chlorine or chloramines (but not chlorine dioxide) in the distribution system to a level and for a time necessary to protect public health to address specific microbiological contamination problems caused by circumstances such as distribution line breaks, storm runoff events, source water contamination, or cross-connections.

(117) "Maximum residual disinfectant level goal" (MRDLG) means the maximum level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of persons would occur, and which allows an adequate margin of safety. MRDLGs are nonenforceable health goals and do not reflect the benefit of the addition of the chemical for control of waterborne microbial contaminants.

(118) "Maximum Total Trihalomethane Potential" means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after seven days at a temperature of 25°C or above.

(119) "Mechanical logging" means any number of techniques that measure some physical property of the subsurface.

(120) "Medium-size water system" for the purpose of R.61-58.11, Control of Lead and Copper, only, means a water system that serves greater than ~~3,300~~10,000 persons and less than or equal to 50,000 persons.

(121) “Membrane filtration” is a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size- exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis.

(122) “Method detection limit (MDL)” means the minimum concentration of a substance that can be measured and reported with ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) and is determined from analysis of a sample in a given matrix containing the analyte.

(123) "National Primary Drinking Water Regulations" means primary drinking water regulations promulgated by the Administrator pursuant to the Federal Act and contained in 40 CFR Part 141, as amended.

(124) "Natural filter" means the material adjacent to the screens in Type II wells which is part of the screened formation and which is relatively free of fine-grained material as a result of well development.

(125) "National Secondary Drinking Water Regulations" means secondary drinking water regulations promulgated by the Administrator pursuant to the Federal Act, and contained in 40 CFR Part 143, as amended.

(126) "Near the first service connection" means at one of the 20 percent of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system.

(127) "Non-caving formation" means formation which will not collapse into an open borehole drilled through it such as igneous and metamorphic crystalline rocks, limestone, tight clay, etc.

(128) "Non-coliform growth (NCG)" means any bacterial growth other than coliform type which appears in a membrane filter test for coliform bacteria.

(129) "Non-community water system" means a public water system which serves at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year, and does not meet the definition of a community water system.

(130) "Non-transient non-community water system" means a public water system that is not a community water system and that regularly serves at least twenty-five (25) of the same persons over six months per year.

(131) "Operator" means a person certified by the South Carolina Environmental Certification Board as being qualified to operate and maintain a public water system. Operation and maintenance responsibilities shall include, but not be limited to, conducting tests of the raw and treated water, adjusting chemical feed rates, and/or operating equipment so as to change the physical, chemical, radiological or bacteriological quality of surface or ground water to meet established standards.

(132) "Optimal corrosion control treatment" for the purpose of R.61-58.11, Control of Lead and Copper, only, means the corrosion control treatment that minimizes the lead and copper concentrations at users’ taps while insuring that the treatment does not cause the water system to violate any national primary drinking water regulations.

(133) “Partial lead service line replacement” means replacement of any portion of a lead service line or galvanized service line requiring replacement, as defined in this section, that leaves in service any length of lead service line or galvanized service line requiring replacement upon completion of the work. Partial lead service line replacements are permitted under limited circumstances under R.61-58.11.F(4) but do not count towards the mandatory or goal-based lead service line replacement rate.

(134) "Penetration rate log" means tabulation of the time required to drill unit depth intervals such as minutes per foot, minutes per 5-feet, minutes per drill rod section, etc.

(135) "Performance evaluation sample" means a reference sample provided to a laboratory for the purpose of demonstrating that the laboratory can successfully analyze the sample within limits of performance specified by the Department. The true value of the concentration of the reference material is unknown to the laboratory at the time of the analysis.

(136) "Person" means an individual, partnership, co-partnership, cooperative, firm, company, public or private corporation, political subdivision, agency of the State, trust, estate, joint structure company or any other legal entity or their legal representative, agent or assigns.

(137) "Picocurie (pCi)" means that quantity of radioactive material producing 2.22 nuclear transformations per minute.

(138) Pitcher filter means a non-plumbed water filtration device which consists of a gravity-fed water filtration cartridge and a filtered drinking water reservoir that is certified by an American National Standards Institute accredited certifier to reduce lead in drinking water.

(139) “Plant intake” refers to the works or structures at the head of a conduit through which water is diverted from a source (e.g., river or lake) into the treatment plant.

(140) "Point of disinfectant application" is the point where the disinfectant is applied and water downstream of that point is not subject to recontamination by surface water runoff.

(141) "Point-of-entry treatment device (POE)" is a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

(142) "Point-of-use treatment device or point of use device (POU)" is a water treatment device physically installed or connected to a single fixture, outlet, or tap to reduce or remove contaminants in drinking water. For the purposes of R.61-58.11, Control of Lead and Copper, it must be certified by an American National Standards Institute accredited certifier to reduce lead in drinking water.

(143) "Pollution Source" means a facility or activity which may introduce any dangerous material to the groundwater system below the water table in concentrations sufficient to cause drinking water quality standards to be exceeded or to decrease the quality of the drinking water. pollution sources shall include, but not be limited to, the following:

a. Septic tank

b. Tile Field

c. Sewer line

d. Abandoned unprotected well

e. Waste treatment lagoon

f. Storage lagoon

g. Animal feedlot

h. Chemical handling area

i. Chemical storage area

j. Petroleum storage area

k. Waste disposal area

l. Mine

(144) “Practical quantitation limit (PQL)” means the minimum concentration of an analyte (substance) that can be measured with a high degree of confidence that the analyte is present at or above that concentration.

(145) "Presedimentation" is a preliminary treatment process used to remove gravel, sand and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant. May be with or without chemical addition.

(146) Pre-stagnation flushing is the opening of tap(s) to flush standing water from plumbing prior to the minimum six (6)-hour stagnation period in anticipation of lead and copper tap sampling under R.61-58.11, Control of Lead and Copper.

(147) "Primary Drinking Water Regulation" means the maximum contaminant limits, the requirements for monitoring, the requirements for reporting, record retention requirements and public notification specified in R.61-58.5, Maximum Contaminants in Drinking Water, and R.61-58.6, Reports, Record Retention and Public Notification of Drinking Water Violations.

(148) "Professional Engineer" means a person properly qualified to perform engineering work as provided in Title 40 of the 1976 Code of Laws of South Carolina, as amended, Chapter 22, Engineers and Land Surveyors.

(149) "Professional Geologist" means a person registered as a professional geologist by the South Carolina State Board of Registration for Geologists.

(150) "Public Water System" means (1) any public or privately owned waterworks system which provides drinking water, whether bottled or piped, for human consumption, including the source of supply whether the source of supply is of surface or subsurface origin; (2) all structures and appurtenances used for the collection, treatment, storage or distribution of drinking water delivered to consumers; (3) any part or portion of the system and including any water treatment facility which in any way alters the physical, chemical, radiological, or bacteriological characteristics of drinking water; provided, that public water system shall not include a drinking water system serving a single private residence or dwelling. A separately owned system with its source of supply from another waterworks system shall be a separate public water system.

(151) "Rapid Mix" means the rapid dispersion of chemicals throughout the water to be treated, usually by violent agitation.

(152) "Rapid Rate Gravity Filter" means a gravity filter not to exceed 4 gallons per minute per square foot of surface area.

(153) "Raw water" means untreated water as obtained from the source.

(154) "Rem" means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A "millirem (mrem)" is one one-thousandth of a rem.

(155) "Repeat compliance period" means any subsequent compliance period after the initial compliance period.

(156) "Residual disinfectant concentration" ("C" in CT calculations) means the concentration of disinfectant measured in mg/L in a representative sample of water.

(157) "Sand" means a detrital geologic material in the form of un-cemented particles having a size range from two (2) millimeters to one-sixteenth (1/16) of a millimeter and composed of mineral crystals or rock fragments.

(158) "Sanitary defect" is a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place.

(159) "Sanitary Seal" means a cap on the top of the well casing usually fitted with a rubber expansion gasket, which seals off surface drainage, thereby protecting the well from contamination directly down the casing.

(160) “School,” for the purpose of R.61-58.11 only, means any building(s) associated with public, private, or charter institutions that primarily provides teaching and learning for elementary or secondary students.

(161) "Seasonal system" is a non-community water system that is not operated as a public water system on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

(162) "Secondary Containment" means a basin constructed to receive the liquids spilled from any chemical storage tank or solution tank, and shall be designed to prevent migration of any accumulated liquid out of the basin to the soil, ground-water, or surface water at any time. The volume of the secondary containment shall equal or exceed the volume of the tank. Where more than one (1) tank is located in the secondary containment area, the volume of the secondary containment shall be equal to or greater than the volume of the largest tank.

(163) "Secondary maximum contaminant level" means the maximum contaminant levels which, in the judgment of the Department, are requisite to protect the public welfare. Such levels may apply to any contaminant in drinking water (1) which may adversely affect the odor or appearance of such water and consequently may cause a substantial number of the persons served by the public water system providing such water to discontinue its use, or (2) which may otherwise adversely affect the public welfare. Such levels may vary according to geographic and other circumstances.

(164) “Secondary school,” for the purpose of R.61-58.11 only, means a school comprising any span of grades beginning with the next grade following an elementary or middle school (usually grades seven through nine (7-9) and ending with or below grade twelve (12). Both junior high schools and senior high schools are included.

(165) "Sedimentation" means a process for removal of solids before filtration by gravity or separation.

(166) "Service line sample" means a one-liter sample of water, collected in accordance with R.61- 58.11.H(2)(c), Sample Collection Methods, that has been standing for at least 6 hours in a service line.

(167) "7Q10" means the minimum average annual stream flow that can statistically be expected to occur for a seven day period once every ten years.

(168) "Sieve analysis" means a method of determining grain-size distribution by mechanically separating the various size portions using a set of graduated sieves and weighing the portion of the sample retained on each sieve. These weights are converted to percent retained and graphically plotted against grain size to show the grain size distribution in a well.

(169) "Single family structure" for the purpose of R.61-58.11, Control of Lead and Copper, only, means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

(170) "Slow sand filtration" means a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.4 m/h) resulting in substantial particulate removal by physical and biological mechanisms.

(171) "Small water system" for the purpose of R.61-58.11, Control of Lead and Copper, only, means a water system that serves 3,300 persons or fewer.

(172) "Specific Capacity" means the rate of well yield per unit of drawdown. It is usually expressed as gallons-per-minute per foot of drawdown and is a required measurement in selecting pump setting and size.

(173) "Stabilized Water" means water which has been physically or chemically altered to reduce its aggressiveness or corrosiveness.

(174) "Stand-by Well" means a well that is not routinely used, but which can be immediately placed into operation if needed. Such wells are routinely exercised and sampled by the water system to ensure operability and water quality.

(175) "Standard sample" means the aliquot of finished drinking water that is examined for the presence of coliform bacteria.

(176) "State Water System" or SWS means any water system that serves less than fifteen (15) service connections or regularly serves an average of less than twenty-five (25) individuals daily.

(177) "Static water level" means the stable water level which has not been affected by pumping the well in which it is measured.

(178) "Subpart H systems" means public water systems using surface water or ground water under the direct influence of surface water as a source that are subject to the requirements of 40 CFR 141, subpart H.

(179) "Supplier of water" means any person who owns or operates a public water system.

(180) "Surface water" means all water which is open to the atmosphere and subject to surface runoff.

(181) "Surface Water Treatment Plant" means any facility capable of altering the physical, chemical, radiological or bacteriological quality of surface water to produce water for public consumption in a public water system.

(182) "SUVA" means Specific Ultraviolet Absorption at 254 nanometers (nm), an indicator of the humic content of a water. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm (UV_{254}) (in m^{-1}) by its concentration of dissolved organic carbon (DOC) (in mg/L).

(183) "System with a single service connection" means a system which supplies drinking water to consumers via a single service line.

(184) "System without corrosion control treatment" means a public water system that does not have or purchases all of its water from a system that does not have: (1) An optimal corrosion control treatment approved by the Department; or (2) Any pH adjustment, alkalinity adjustment, and/or corrosion inhibitor addition resulting from other water quality adjustments as part of its treatment train infrastructure.

(185) "Tap" means a service connection, the point at which water is delivered to the consumer (building, dwelling, commercial establishment, camping space, industry, etc.) from a distribution system, whether metered or not and regardless of whether there is a user charge for consumption of the water.

(186) "Tap sampling monitoring period," for the purposes of R.61-58.11, Control of Lead and Copper, means the period of time during which each water system must conduct tap sampling for lead and copper analysis. A tap sampling monitoring period is determined by lead and copper concentrations in tap samples and the frequency can range from every six (6) months (i.e., semi-annual) up to once every nine (9) years. Water systems on semi-annual tap sampling monitoring must collect samples no less frequently than every six (6) months while those on annual monitoring must sample no less frequently than every year. Water systems on triennial monitoring must collect samples no less frequently than every three (3) years; and those on monitoring waivers must sample no less frequently than every nine (9) years. The start of each new tap sampling monitoring period, with the exception of semi-annual monitoring, must begin on January 1.

(187) "Tap sampling period," for the purpose of R.61-58.11 only, means the time period, within a tap sampling monitoring period, during which the water system is required to collect samples for lead and copper analysis. For systems monitoring at a reduced frequency, the tap sampling period must be between the months of June and September, unless a different four (4)-month period of time is approved in writing to be more appropriate by the Department.

(188) "Tap sampling protocol" means the instructions given to residents or those sampling on behalf of the water system to conduct tap sampling under R.61-58.11, Control of Lead and Copper.

(189) "Too numerous to count" means that the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

(190) "Total Organic Carbon" (TOC) means total organic carbon in mg/L measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to two significant figures.

(191) "Total Trihalomethanes" means the sum of the concentration in milligrams per liter of the trihalomethane compounds [trichloromethane (chloroform), dibromochloromethane, bromodichloromethane, tribromomethane (bromoform)], rounded to two significant figures.

(192) "Transient non-community water system" or TWS means a non-community water system that does not regularly serve at least 25 of the same persons over six months per year.

(193) "Tremie pipe" means a device, usually a small diameter pipe, that carries grouting materials to the bottom of the zone to be grouted and which allows pressure grouting from the bottom up without introduction of appreciable air pockets.

(194) "Trihalomethane" means one of the family of organic compounds, named as derivatives of methane, wherein three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

(195) "Two-stage lime softening" is a process in which chemical addition and hardness precipitation occur in each of two distinct unit clarification processes in series prior to filtration.

(196) "Uncovered finished water storage facility" is a tank, reservoir, or other facility used to store water that will undergo no further treatment to reduce microbial pathogens except residual disinfection and is directly open to the atmosphere.

(197) "Uniformity coefficient" means the ratio of the sieve size that will retain 40 percent of the aquifer materials to the effective size.

(198) "Viable Water System" means a water system which is self-sustaining and has the commitment and the financial, managerial and technical capability to consistently comply with the State Safe Drinking Water Act (44-55-10 et seq.) and these regulations.

(199) "Virus" means a virus of fecal origin which is infectious to humans by waterborne transmission.

(200) "Vending Machine" means any self-service device which upon insertion of a coin, coins, or token, or upon receipt of payment by other means, dispenses unit servings of water in bulk, without the necessity of refilling the machine between each operation.

(201) "Waterborne disease outbreak" means the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a public water system which is deficient in treatment, as determined by the Department.

(202) "Well" means a bored, drilled or driven shaft, or a dug hole whose depth is greater than the largest surface dimension, from which water is extracted or injected. This shall include, but not be limited to, wells used for water supply for irrigation, industrial or manufacturing processes or drinking water; wells used for underground injection of waste for disposal, storage, or drainage disposal; wells used in mineral or geothermal recovery, and any other special process well. In South Carolina, wells used for public water supplies fall into one of the following types of construction:

a. Type I -open hole wells into bedrock aquifers.

b. Type II -screened, natural filter wells into unconsolidated aquifers.

c. Type III -screened, artificial filter (gravel pack) wells into unconsolidated aquifers.

d. Type IV -open hole wells into limestone aquifers.

(203) "Well Casing" means tubular retaining structure, generally metal, which is installed in the excavated hole to maintain the well opening.

(204) "Well interference" means the additive drawdown effects to two or more wells pumping from the same aquifer in the same vicinity.

(205) “Wholesale system” is a public water system that treats source water as necessary to produce finished water and then delivers some or all of that finished water to another public water system. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

(206) “Wide-mouth bottles,” for the purpose of R.61-58.11only, means bottles configured with a mouth that is at least fifty-five millimeters (55 mm) wide that are one liter (1 L) in size.

Amend 61-58.6.B, Reporting Requirements, to read:

B. Reporting Requirements.

(1) Except where a shorter reporting period is specified in this regulation, the supplier of water shall report to the Department the results of any test, measurement or analysis required to be made by the primary drinking water regulation within ten calendar days following the end of the month in which the result is received or within

ten calendar days following the end of the monitoring period specified by the Department, whichever of these is shortest. Such report shall be in form established by the Department.

(2) If the result of an analysis made pursuant to the requirements of R.61-58.5, Maximum Contaminant Levels in Drinking Water, indicates that the level of any contaminant listed in said regulation exceeds the maximum contaminant level, the supplier of water shall report these findings to the Department within seven days of receiving the results.

(3) Except where a different reporting period is specified in these regulations, the supplier of water shall report to the Department within 48 hours the failure to comply with any national primary drinking water regulations (including failure to comply with monitoring requirements) as set forth in these regulations.

(4) The supplier of water is not required to report analytical results to the Department in cases where a State Laboratory performs the analysis and reports the results to the Department.

(5) Certification and notification of public notice issued

(a) The public water system, within ten (10) days of completing the public notification requirements under Section E below for the initial public notice and any repeat notices, must submit to the Department a certification that it has fully complied with the public notification regulations. For Tier 2 and 3 notices, the public water system must include with this certification a representative copy of each type of notice distributed, published, posted, and made available to the persons served by the system and to the media.

(b) For Tier 1 notices for a lead action level exceedance, public water systems must provide a copy of any Tier 1 notice to the Administrator and the head of the Department as soon as practicable, but not later than twenty-four (24) hours after the public water system learns of the violation or exceedance.

(6) The public water system shall submit to the Department, when requested, within the time stated in the request, copies of any records required to be maintained under R.61-58.6.D or copies of any documents then in existence which the Department or the EPA Administrator is entitled to inspect pursuant to the authority of section 1445 of the Safe Drinking Water Act or the equivalent provisions of State law.

Amend R.61-58.6.E(1) through (2), to read:

E. Public Notification of Drinking Water Violations.

(1) General public notification requirements:

(a) Who must give public notice? Each owner or operator of a public water system (community water systems, non-transient non-community water systems, and transient non community water systems) must give notice for all violations of State Primary Drinking Water Regulations (SPDWR) and for other situations, as listed in Table 1. The term "SPDWR violations'' is used in this regulation to include violations of the maximum contaminant level (MCL), maximum residual disinfection level (MRDL), treatment technique (TT), monitoring requirements, and testing procedures in this regulation. Appendix A to this regulation identifies the tier assignment for each specific violation or situation requiring a public notice.

TABLE 1: VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A PUBLIC NOTICE

(1) SPDWR violations:

(i) Failure to comply with an applicable maximum contaminant level(MCL) or maximum residual disinfectant level (MRDL).

(ii) Failure to comply with a prescribed treatment technique (TT).

(iii) Failure to perform water quality monitoring, as required by the drinking water regulations.

(iv) Failure to comply with testing procedures as prescribed by a drinking water regulation.

(2) Variance and exemptions under R.61-58.9:

(i) Operation under a variance or an exemption.

(ii) Failure to comply with the requirements of any schedule that has been set under a variance or exemption.

(3) Special public notices:

(i) Occurrence of a waterborne disease outbreak or other waterborne emergency.

(ii) Exceedance of the nitrate MCL by non-community water systems (NCWS), where granted permission by the Department under R.61-58.5.B(3).

(iii) Exceedance of the secondary maximum contaminant level (SMCL) for fluoride.

(iv) Availability of unregulated contaminant monitoring data.

(v) Other violations and situations determined by the Department to require a public notice under this regulation, not already listed in Appendix A to this regulation.

(vi) Exceedance of the lead action level.

(b) What type of public notice is required for each violation or situation? Public notice requirements are divided into three (3) tiers, to take into account the seriousness of the violation or situation and of any potential adverse health effects that may be involved. The public notice requirements for each violation or situation listed in Table 1 of this section are determined by the tier to which it is assigned. Table 2 of this section provides the definition of each tier. Appendix A to this regulation identifies the tier assignment for each specific violation or situation.

TABLE 2: DEFINITION OF PUBLIC NOTICE TIERS

(1) Tier 1 public notice — required for SPDWR violations and situations with significant potential to have serious adverse effects on human health as a result of short-term exposure.

(2) Tier 2 public notice — required for all other SPDWR violations and situations with potential to have serious adverse effects on human health.

(3) Tier 3 public notice — required for all other SPDWR violations and situations not included in Tier 1 and Tier 2.

(c) *Who must be notified?*

(i) Each public water system must provide public notice to persons served by the water system, in accordance with this regulation. Public water systems that sell or otherwise provide drinking water to other

public water systems (i.e., to consecutive systems) are required to give public notice to the owner or operator of the consecutive system; the consecutive system is responsible for providing public notice to the persons it serves.

(ii) If a public water system has a violation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, the Department may allow the system to limit distribution of the public notice to only persons served by that portion of the system which is out of compliance. Permission by the Department for limiting distribution of the notice must be granted in writing.

(iii) A copy of the notice must also be sent to the Department and the Administrator (as applicable) in accordance with the requirements of R.61-58.6.B(5).

(2) Tier 1 Public Notice: Form, Manner, and Frequency of Notice

(a) **Which violations or situations require a Tier 1 public notice?** Table 1 of this section lists the violation categories and other situations requiring a Tier 1 public notice. Appendix A to this regulation identifies the tier assignment for each specific violation or situation.

TABLE 1: VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A TIER 1 PUBLIC NOTICE

(1) Violation of the MCL for total coliforms when fecal coliform or E. coli are present in the water distribution system (as specified in R.61-58.5.F(2)), or when the water system fails to test for fecal coliforms or E. coli when any repeat sample tests positive for coliform (as specified in R.61-58.5.G(5)), violation of the MCL for E. coli (as specified in R.61-58.5.F);

(2) Violation of the MCL for nitrate, nitrite, or total nitrate and nitrite, as defined in R.61-58.5.B, or when the water system fails to take a confirmation sample within 24 hours of the system's receipt of the first sample showing an exceedance of the nitrate or nitrite MCL, as specified in R.61-58.5.C(12)(b);

(3) Exceedance of the nitrate MCL by non-community water systems, where permitted to exceed the MCL by the Department under R.61-58.5.B(3), as required under paragraph (9) of this section;

(4) Violation of the MRDL for chlorine dioxide, as defined in R.61-58.5.Q(1), when one or more samples taken in the distribution system the day following an exceedance of the MRDL at the entrance of the distribution system exceed the MRDL, or when the water system does not take the required samples in the distribution system, as specified in R.61-58.13.D(3)(b)(i);

(5) Violation of the turbidity MCL under R.61-58.10(C), (E), (H), or (I), where the Department determines after consultation that a Tier 1 notice is required or where consultation does not take place within 24 hours after the system learns of the violation;

(6) Violation of the Surface Water Treatment Rule (SWTR), Interim Enhanced Surface Water Treatment Rule (IESWTR) or Long Term 1 Enhanced Surface Water Treatment Rule (LT1EWSTR) treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit (as identified in Appendix A to this regulation), where the Department determines after consultation that a Tier 1 notice is required or where consultation does not take place within twenty-four (24) hours after the system learns of the violation;

(7) Occurrence of a waterborne disease outbreak, as defined in R.61-58(B)(174), or other waterborne emergency (such as a failure or significant interruption in key water treatment processes, a natural disaster that disrupts the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination);

(8) Detection of E. coli, enterococci, or coliphage in source water samples as specified in R.61-58.16.E(1) or R.61-58.16.E(2).

(9) Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the Department either in its regulations or on a case-by-case basis.

(10) Exceedance of the Action Level for lead as specified in R.61-58.11.B(3).

(b) *When is the Tier 1 public notice to be provided? What additional steps are required?* Public water systems must:

(i) Provide a public notice as soon as practical but no later than twenty-four (24) hours after the system learns of the violation;

(ii) Initiate consultation with the Department as soon as practical, but no later than twenty-four (24) hours after the public water system learns of the violation or situation, to determine additional public notice requirements; and

(iii) Comply with any additional public notification requirements (including any repeat notices or direction on the duration of the posted notices) that are established as a result of the consultation with the Department. Such requirements may include the timing, form, manner, frequency, and content of repeat notices (if any) and other actions designed to reach all persons served.

(c) *What is the form and manner of the public notice?* Public water systems must provide the notice within twenty-four (24) hours in a form and manner reasonably calculated to reach all persons served. The form and manner used by the public water system are to fit the specific situation, but must be designed to reach residential, transient, and non-transient users of the water system. In order to reach all persons served, water systems are to use, at a minimum, one or more of the following forms of delivery:

(i) Appropriate broadcast media (such as radio and television);

(ii) Posting of the notice in conspicuous locations throughout the area served by the water system;

(iii) Hand delivery of the notice to persons served by the water system; or

(iv) Another delivery method approved in writing by the Department.

Amend R.61-58.6. Appendix A, to read:

APPENDIX A. VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE

APPENDIX A TO 61-58.6: VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE[1]

CONTAMINANT	MCL/MRDL/TT/VIOLATIONS[2]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION

I. Violations of the State Primary Drinking Water Regulations (SPDWR):[3]

A. Microbiological Contaminants

CONTAMINANT	MCL/MRDL/TT/VIOLATIONS[2]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
1.a Total coliform†	2	61-58.5.F(1)	3	61-58.5.G(1) – (5)
1.b Total coliform (TT violations resulting from failure to perform assessments or corrective actions, monitoring violations, and reporting violations)‡	2	61-58.17.K(2)(a)	3	61-58.17.K(3)(a) 61-58.17.K(4)(a)
1.c Seasonal system failure to follow Department-approved start-up plan prior to serving water to the public or failure to provide certification to the Department.‡	2	61-58.17.K(2)(b)	3	61-58.17.K(4)(c)
2.a Fecal coliform/E. coli†	1	61-58.5.F(2)	[4]1, 3	61-58.5.G(5)
2.b *E.coli* (MCL, monitoring, and reporting violations.‡	1	61-58.17.K(1)	3	61-58.17.K(3)(b) 61-58.17.K(4)(a) 61-58.17.K(4)(b)
2.c E. coli (TT violations resulting from failure to perform level 2 Assessments or corrective action)‡	2	61-58.17.K(2)(a)		
3. Turbidity MCL	2	61-58.10.E, H, & I	3	61-58.10.F
4. Turbidity MCL (average of 2 days samples great than 5 NTU)	[5]2,1	61-58.10.C, E, H & I	3	61-58.10.F
5. Turbidity (for TT violations resulting from a single exceedance of maximum allowable turbidity level)	[6] 2, 1	61-58.10.C(i)(b) 61-58.10.C.(3)(b) 61-58.10.F(2)(b), 61-58.10.E(1)(b), 61-58.10.E(2)(b), 61-58.10.E(3)(b), 61-58.10.E(4),	3	61-58.10.F 61-58.10(F)(3) 61-58.10.H 61-58.10(I)(7)(a)(i)-(iii) & (b)

CONTAMINANT	MCL/MRDL/TT/VIOLATIONS[2]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
		61-58.10.H(4)(a)(ii), 61-58.10.H(4)(b), 61-58.10.I(6)(b)		
6. Surface Water Treatment Rule violations, other than violations resulting from single exceedance of max. allowable turbidity level (TT).	2	61-58.10.B - E		61-58.10
7. Interim Enhanced Surface Water Treatment Rule violations, other than violations resulting from single exceedance of max. turbidity level (TT)	[7] 2	61-58.10.B - E 61-58.10.I(1)-(7)	3	61-58.10.H(3), (5) 61-58.10.I(4) & (5) 61-58.10.I(7)
8. Filter Backwash Recycling Rule violations	2	61-58.10.J(3)	3	61-58.10.J(2) & (4)
9. Long Term 1 Enhanced Surface Water Treatment Rule Violations.	2	61-58.10.I(1)-(7)	3	61-58.10.I(4) & (5) 61-58.10.I(7)
10. LT2ESWTR violations	2	61-58.10.K(11)-(21)	[22]2,3	61-58.10.K(2) - (6) & 61-58.10.K(9) - (10)
11. Ground Water Rule Violations	2	61-58.16.G	3	61-58.16.E(8) 61-58.16.F(4)
B. Inorganic Chemicals (IOCs)				
1. Antimony	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
2. Arsenic	2	61-58.5.B(2)	3	[9]61-58.5.C(7)
3.Asbestos (fibers>10µm)	2	61-58.5.B(2)	3	61-58.5.C(7), (8)
4. Barium	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
5. Beryllium	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
6. Cadmium	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
7. Chromium (total)	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
8. Cyanide	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
9. Fluoride	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
10.Mercury (inorganic)	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
11. Nitrate	1	61-58.5.B(2)	[10]1,3	61-58.5.C(7), (10) 61-58.5.C(12)
12. Nitrite	1	61-58.5.B(2)	[10] 1,3	61-58.5.C(7), (10) 61-58.5.C(12)
13. Total Nitrate and Nitrite	1	61-58.5.B(2)	3	61-58.5.C(7)

CONTAMINANT	MCL/MRDL/TT/VIOLATIONS[2]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
14. Selenium	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
15. Thallium	2	61-58.5.B(2)	3	61-58.5.C(7), (9)
C. Lead and Copper Rule (Action Level for lead is 0.015 mg/L, for copper is 1.3 mg/L)				
1. Lead and Copper Rule (TT)	2	61-58.11.B (except 61-58.11.B(3)), 61-58.11.F, 61-58.11.G(1) – (3) and (8), and 61-58.11.O	3	61-58.11.H - L
2. Exceedance of the action Level for Lead	1	61-58.11.B(3)		
D. Synthetic Organic Chemicals (SOCs)				
1. 2,4-D	2	61-58.5.D	3	61-58.E(7)
2. 2,4,5-TP (Silvex)	2	61-58.5.D	3	61-58.5.E(7)
3. Alachlor	2	61-58.5.D	3	61-58.5.E(7)
4. Atrazine	2	61-58.5.D	3	61-58.5.E(7)
5. Benzo(a)pyrene (PAHs)	2	61-58.5.D	3	61-58.5.E(7)
6. Carbofuran	2	61-58.5.D	3	61-58.5.E(7)
7. Chlordane	2	61-58.5.D	3	61-58.5.E(7)
8. Dalapon	2	61-58.5.D	3	61-58.5.E(7)
9. Di (2-ethylhexyl) adipate	2	61-58.5.D	3	61-58.5.E(7)
10. Di (2-ethylhexyl) phthalate	2	61-58.5.D	3	61-58.5.E(7)
11. Dibromochloropropane	2	61-58.5.D	3	61-58.5.E(7)
12. Dinoseb	2	61-58.5.D	3	61-58.5.E(7)
13. Dioxin (2,3,7,8-TCDD)	2	61-58.5.D	3	61-58.5.E(7)
14. Diquat	2	61-58.5.D	3	61-58.5.E(7)
15. Endothall	2	61-58.5.D	3	61-58.5.E(7)
16. Endrin	2	61-58.5.D	3	61-58.5.E(7)
17. Ethylene dibromide	2	61-58.5.D	3	61-58.5.E(7)
18. Glyphosate	2	61-58.5.D	3	61-58.5.E(7)
19. Heptachlor	2	61-58.5.D	3	61-58.5.E(7)
20. Heptachlor epoxide	2	61-58.5.D	3	61-58.5.E(7)
21. Hexachlorobenzene	2	61-58.5.D	3	61-58.5.E(7)
22. Hexachlorocyclo-pent-adiene	2	61-58.5.D	3	61-58.5.E(7)
23. Lindane	2	61-58.5.D	3	61-58.5.E(7)
24. Methoxychlor	2	61-58.5.D	3	61-58.5.E(7)

CONTAMINANT	MCL/MRDL/TT/VIOLATIONS[2]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
25. Oxamyl (Vydate)	2	61-58.5.D	3	61-58.5.E(7)
26. Pentachlorophenol	2	61-58.5.D	3	61-58.5.E(7)
27. Picloram	2	61-58.5.D	3	61-58.5.E(7)
28. Polychlorinated biphenyls (PCBs)	2	61-58.5.D	3	61-58.5.E(7)
29. Simazine	2	61-58.5.D	3	61-58.5.E(7)
30. Toxaphene	2	61-58.5.D	3	61-58.5.E(7)
E. Volatile Organic Chemicals (VOCs)				
1. Benzene	2	61-58.5.N	3	61-58.5.O
2. Carbon tetrachloride	2	61-58.5.N	3	61-58.5.O
3. Chlorobenzene (monochlorobenzene)	2	61-58.5.N	3	61-58.5.O
4. o-Dichlorobenzene	2	61-58.5.N	3	61-58.5.O
5. p-Dichlorobenzene	2	61-58.5.N	3	61-58.5.O
6. 1,2-Dichloroethane	2	61-58.5.N	3	61-58.5.O
7. 1,1-Dichloroethylene	2	61-58.5.N	3	61-58.5.O
8. cis-1,2-Dichloroethylene	2	61-58.5.N	3	61-58.5.O
9. trans-1,2-Dichloroethy-lene	2	61-58.5.N	3	61-58.5.O
10. Dichloromethane	2	61-58.5.N	3	61-58.5.O
11. 1,2-Dichloropropane	2	61-58.5.N	3	61-58.5.O
12. Ethylbenzene	2	61-58.5.N	3	61-58.5.O
13. Styrene	2	61-58.5.N	3	61-58.5.O
14. Tetrachloroethylene	2	61-58.5.N	3	61-58.5.O
15. Toluene	2	61-58.5.N	3	61-58.5.O
16. 1,2,4-Trichlorobenzene	2	61-58.5.N	3	61-58.5.O
17. 1,1,1-Trichloroethane	2	61-58.5.N	3	61-58.5.O
18. 1,1,2-Trichloroethane	2	61-58.5.N	3	61-58.5.O
19. Trichloroethylene	2	61-58.5.N	3	61-58.5.O
20. Vinyl chloride	2	61-58.5.N	3	61-58.5.O
21. Xylenes (total)	2	61-58.5.N	3	61-58.5.O
F. Radioactive Contaminants				
1. Beta/photon emitters	2	61-58.5.H(4)	3	61-58.5.K(1), 61-58.5.I.(3)
2. Alpha emitters	2	61-58.5.H(3)	3	61-58.5.K(1), 61-58.5.I(2)
3. Combined radium (226 & 228)	2	61-58.5.H(2)	3	61-58.5.K(1), 61-58.5.I2)
4. Uranium	[11]2	61-58.5.H(5)	[12] 3	61-58.5.K(1), 61-58.5.I(2)

G. Disinfection Byproducts (DBPs), Byproduct Precursors, Disinfectant Residuals. Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals

CONTAMINANT	MCL/MRDL/TT/VIOLATIONS[2]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
called disinfection byproducts (DBPs). EPA sets standards for controlling the levels of disinfectants and DBPs in drinking water, including trihalomethanes (THMs) and haloacetic acids (HAAs).[13]				
1. Total trihalomethanes (TTHMs)	2	[14]61-58.5.L, 61-58.5.P	3	[14] 61-58.5.M 61-58.13.C(1), (2) 61-58.14, 61-58.15
2. Haloacetic Acids (HAA5)	2	61-58.5.P	3	61-58.13.C(1), (2) 61-58.14, 61-58.15
3. Bromate	2	61-58.5.P	3	61-58.13.C(1), (2)
4. Chlorite	2	61-58.5.P	3	61-58.13.C(1), (2)
5. Chlorine (MRDL)	2	61-58.5.Q	3	61-58.13.C(1), (3)
6. Chloramine (MRDL)	2	61-58.5.Q	3	61-58.13.C(1), (3)
7. Chlorine dioxide (MRDL) where any 2 consecutive daily samples at entrance to distribution system only are above MRDL	2	61-58.5.Q, 61-58.13.D	2[15], 3	61-58.13.C(1), (3), 61-58.13.C(3)(b)
8. Chlorine dioxide (MRDL), where sample(s) in distribution system the next day are also above MRDL	[16] 1	61-58.5.Q, 61-58.13.D(3)	1	61-58.13.C(1), (3), 61-58.13.D(3)(b)
9. Control of DBP precursors—TOC (TT)	2	61-58.13.F(1), (2)	3	61-58.13.C(1), (4)
10. Bench marking and disinfection profiling.	N/A	N/A	3	61-58.10.G(3) 61-58.10.H(3) 61-58.10.I(4) & (5)
11. Development of monitoring plan	N/A	N/A	3	61-58.13.C(6)
H. Other Treatment Techniques				
1. Acrylamide (TT)	2	61-58.5.AA	N/A	N/A
2. Epichlorohydrin (TT)	2	61-58.5.AA	N/A	N/A
II. Unregulated Contaminant Monitoring:[17]				
A. Unregulated contaminants	N/A	N/A	3	61-58.5.T
B. Nickel	N/A	N/A	3	61-58.5.C(9), (17)
III. Public Notification for Variances and Exemptions:				
A. Operation under a variance or exemption	3	1861-58.9	N/A	N/A
B. Violation of conditions of a variance or exemption	2	1961-58.9	N/A	N/A

CONTAMINANT	MCL/MRDL/TT/VIOLATIONS[2]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
IV. Other Situations Requiring Public Notification:				
A. Fluoride secondary maximum contaminant level (SMCL) exceedance	3	61-58.5.R	N/A	N/A
B. Exceedance of nitrate MCL for non-community systems, as allowed by Department	1	61-58.5.B(3)	N/A	N/A
C. Availability of unregulated contaminant monitoring data	3	61-58.5.T	N/A	N/A
D. Waterborne disease outbreak	1	61-58.B(156) 61-58.10.C(3)(b)(ii)	N/A	N/A
E. Other waterborne emergency[20]	1	N/A	N/A	N/A
F. Source water sample positive for Ground Water Rule fecal indicators: E. coli, enterococci, or coliphage	1	61-58.16.E(7)	N/A	N/A
G. Other situations as determined by the Department	[21]1, 2, 3	N/A	N/A	N/A

Appendix A to R.61-58.6 - Endnotes

† Until March 31, 2016

‡ Beginning April 1, 2016

[1] Violations and other situations not listed in this table (e.g., failure to prepare Consumer Confidence Reports), do not require notice, unless otherwise determined by the Department. The Department may, at its option, also require a more stringent public notice tier (e.g., Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3) for specific violations and situations listed in this Appendix, as authorized under R.61-58.6.E(2)(a) and (3)(a).

[2] MCL—Maximum contaminant level, MRDL—Maximum residual disinfectant level, TT—Treatment technique

[3] The term Violations of State Primary Drinking Water Regulations (SPDWR) is used here to include violations of MCL, MRDL, treatment technique, monitoring, and testing procedure requirements.

[4] Failure to test for fecal coliform or E. coli is a Tier 1 violation if testing is not done after any repeat sample tests positive for coliform. All other total coliform monitoring and testing procedure violations are Tier 3.

[5] Systems that violate the turbidity MCL of 5 NTU based on an average of measurements over two consecutive days must consult with the Department within 24 hours after learning of the violation. Based on this consultation, the Department may subsequently decide to elevate the violation to Tier 1. If a system is unable to make contact with the Department in the 24-hour period, the violation is automatically elevated to Tier 1.

[6] Systems with treatment technique violations involving a single exceedance of a maximum turbidity limit under the Surface Water Treatment Rule (SWTR) Interim Enhanced Surface Water Treatment Rule (IESWTR), or the Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) are required to consult with the Department within 24 hours after learning of the violation. Based on this consultation, the Department may subsequently decide to elevate the violation to Tier 1. If a

system is unable to make contact with the Department in the 24-hour period, the violation is automatically elevated to Tier 1.

[7] Most of the requirements of the Interim Enhanced Surface Water Treatment Rule, R.61-58.10.B - C become effective January 1, 2002 for surface water systems and ground water systems under the direct influence of surface water serving at least 10,000 persons. However, R.61-58.10.H(3) has some requirements that become effective as early as April 16, 1999. The Surface Water Treatment Rule remains in effect for systems serving at least 10,000 persons even after 2002; the Interim Enhanced Surface Water Treatment Rule adds additional requirements and does not in many cases supersede the SWTR.

[8] The arsenic MCL citations are effective January 23, 2006. Until then the citations are R.61-58.5(B)(2).

[9] The arsenic Tier 3 violations MCL citations are effective January 23, 2006. Until then, the citations are R.61-58.C(7).

[10] Failure to take a confirmation sample within 24 hours for nitrate or nitrite after an initial sample exceeds the MCL is a Tier 1 violation. Other monitoring violations for nitrate are Tier 3.

[11] The uranium MCL, Tier 2 violation citations are effective December 8, 2003 for all community water systems.

[12] The uranium Tier 3 violation citations are effective December 8, 2000 for all community water systems.

[13] Community and non-transient non-community surface water systems and ground water systems under the direct influence of surface water serving 10,000 must comply with new DBP MCLs, disinfectant MRDLs, and related monitoring requirements beginning January 1, 2002. All other community and non-transient non-community systems must meet the MCLs and MRDLs beginning January 1, 2004. Transient non-community surface water systems and ground water systems under the direct influence of surface water serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. Transient non-community surface water systems and ground water systems under the direct influence of surface water serving fewer than 10,000 persons and using only ground water not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.

[14] R.61-58.5.L, and R.61-58.13.C(1) - (2) apply until R.61-58.14 and R.61-58.15 take effect under the schedule in R.61-58.14.

[15] Failure to monitor for chlorine dioxide at the entrance to the distribution system the day after exceeding the MRDL at the entrance to the distribution system is a Tier 2 violation.

[16] If any daily sample taken at the entrance to the distribution system exceeds the MRDL for chlorine dioxide and one or more samples taken in the distribution system the next day exceed the MRDL, Tier 1 notification is required. Failure to take the required samples in the distribution system after the MRDL is exceeded at the entry point also triggers Tier 1 notification.

[17] Some water systems must monitor for certain unregulated contaminants listed in R.61-58.5.T

[18] This citation refers to the requirements of R.61-58.9 that "a schedule prescribed ...for a public water system granted a variance [or exemption] shall require compliance by the system ..."

[19] In addition to R.61-58.9 specifies the items and schedule milestones that must be included in a variance for small systems.

[20] Other waterborne emergencies require a Tier 1 public notice under R.61-58.6.E(2)(a) for situations that do not meet the definition of a waterborne disease outbreak given in R.61-58.B(174) but that still have the potential to have serious adverse effects on health as a result of short-term exposure. These could include outbreaks not related to treatment deficiencies, as well as situations that have the potential to cause outbreaks, such as failures or significant interruption in water treatment processes, natural disasters that disrupt the water supply or distribution system, chemical spills, or unexpected loading of possible pathogens into the source water.

[21] The Department may place other situations in any tier they believe appropriate, based on threat to public health.

[22] Failure to collect three or more samples for Cryptosporidium analysis is a Tier 2 violation requiring special notice as specified in R.61-58.6.E(11). All other monitoring and testing procedure violations are Tier 3.

Amend R.61-58.6. Appendix B, to read:

APPENDIX B. STANDARD HEALTH EFFECTS LANGUAGE FOR PUBLIC NOTIFICATION

APPENDIX B TO R.61-58.6: STANDARD HEALTH EFFECTS LANGUAGE FOR PUBLIC NOTIFICATION

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
State Primary Drinking Water Regulations (SPDWR):			

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
A. Microbiological Contaminants:			
1a. Total coliform†	Zero	See footnote[3]	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
1b. Fecal coliform/E. coli‡	Zero	Zero	Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
1c. Fecal Indicators (Ground Water Rule)			Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
i. E. coli	Zero	TT	
ii. enterococci	None	TT	
iii. coliphage	None	TT	
1d. Ground Water Rule TT violations	None	TT	Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.
1e. Revised Total Coliform Rule (R.61-58.17) Coliform	N/A	TT	Coliforms are bacteria that are naturally present in the

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
Assessment and/or Corrective Action Violations‡			environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found. [THE SYSTEM MUST USE THE FOLLOWING APPLICABLE SENTENCES.] We failed to conduct the required assessment. We failed to correct all identified sanitary defects that were found during the assessment(s).
1f. Revised Total Coliform Rule (R.61-58.17) E. coli Assessment and/or Corrective Action Violations‡	N/A		E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these waters can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We violated the standard for E. coli, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct a detailed assessment to identify

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			problems and to correct any problems that are found. [THE SYSTEM MUST USE THE FOLLOWING APPLICABLE SENTENCES.] We failed to conduct the required assessment. We failed to correct all identified sanitary defects that were found during the assessment that we conducted.
1g. E. coli‡	Zero	In compliance unless one of the following conditions occurs: (1) The system has an E. coli-positive repeat sample following a total coliform-positive routine sample. (2) The system has a total coliform-positive repeat sample following an E. coli-positive routine sample. (3) The system fails to take all required repeat samples following an E. coli-positive routine sample. (4) The system fails to test for E. coli when any repeat sample tests positive for total coliform.	E. coli are bacteria who presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.
1h. Revised Total Coliform Rule (R.61-58.17) Seasonal System TT Violations‡	N/A	TT	When this violation includes the failure to monitor for total coliforms or E. coli prior to serving water to the public, the

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			mandatory language found at R.61-58.6.E(5)(d)(ii) must be used. When this violation includes failure to complete other actions, the appropriate elements found in R.61-58.6.E(5)(a) to describe the violation must be used.
2a. Turbidity (MCL)[4]	None	1 NTU[5]/5 NTU	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
2b. Turbidity (SWTR TT)[6]	None	TT[7]	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
2c. Turbidity (IESWTR TT)[8]	None	TT	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
B. Surface Water Treatment Rule (SWTR), Interim Enhanced Surface Water Treatment Rule (IESWTR), Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) and Filter Backwash Recycling Rule (FBRR) violations:			

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
3. *Giardia lamblia*	Zero	TT[10]	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
4. Viruses (SWTR/IESWTR/LT1ESWTR).			
5. Heterotrophic plate count (HPC) bacteria[9] (SWTR/IESWTR/LT1ESWTR).			
6. *Legionella* (SWTR/IESWTR/LT1ESWTR).			
7. *Cryptosporidium* (SWTR/IESWTR/LT1ESWTR).			
C. Inorganic Chemicals (IOCs):			
8. Antimony	0.006	0.006	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
9. Arsenic[11]	Zero	0.010	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
10. Asbestos (10 µm)	7 MFL[12]	7 MFL	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
11. Barium	2	2	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
12. Beryllium	0.004	0.004	Some people who drink water containing beryllium well in excess of the MCL over many

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			years could develop intestinal lesions.
13. Cadmium	0.005	0.005	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
14. Chromium (total)	0.1	0.1	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
15. Cyanide	0.2	0.2	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
16. Fluoride	4.0	4.0	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
17. Mercury (inorganic)	0.002	0.002	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
18. Nitrate	10	10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
19. Nitrite	1	1	Infants below the age of six months who drink water

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
20. Total Nitrate and Nitrite	10	10	Infants below the age of six months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
21. Selenium	0.05	0.05	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
22. Thallium	0.0005	0.002	Some people who drink water containing thallium in excess of MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
D. Lead and Copper Rule:			
23. Lead	Zero	TT[13]	Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
24. Copper	1.3	TT[14]	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
E. Synthetic Organic Chemicals (SOCs):			
25. 2,4-D	0.07	0.07	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with kidneys, liver, or adrenal glands.
26. 2,4,5-TP (Silvex)	0.05	0.05	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
27. Alachlor	Zero	0.002	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
28. Atrazine	0.003	0.003	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
29. Benzo(a)pyrene (PAHs)	Zero	0.0002	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			may have an increased risk of getting cancer.
30. Carbofuran	0.04	0.04	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
31. Chlordane	Zero	0.002	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
32. Dalapon	0.2	0.2	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
33. Di (2-ethylhexyl) adipate	0.4	0.4	Some people who drink water containing di(2-ethylhexyl) adipate well in excess of the MCL over many years could experience toxic effects such as weight loss, liver enlargement or possible reproductive difficulties.
33. Di (2-ethylhexyl) phthalate	Zero	0.006	Some people who drink water containing di(2-ethylhexyl) phthalate well in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
35. Dibromochloropropane (DBCP)	Zero	0.0002	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
36. Dinoseb	0.007	0.007	Some people who drink water containing dinoseb well in excess of the MCL over many

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			years could experience reproductive difficulties.
37. Dioxin (2,3,7,8-TCDD).	Zero	3×10^{-8}	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
38. Diquat	0.02	0.02	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
39. Endothall	0.1	0.1	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
40. Endrin	0.002	0.002	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
41. Ethylene dibromide	Zero	0.00005	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
42. Glyphosate	0.7	0.7	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
43. Heptachlor	Zero	0.0004	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
44. Heptachlor epoxide	Zero	0.0002	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			liver damage, and may have an increased risk of getting cancer.
45. Hexachlorobenzene	Zero	0.001	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
46. Hexachlorocyclo pentadiene	0.05	0.05	Some people who drink water containing Hexachlorocyclo-pentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.
47. Lindane	0.0002	0.0002	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
48. Methoxychlor	0.04	0.04	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
49. Oxamyl (Vydate)	0.2	0.2	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
50. Pentachlorophenol	Zero	0.001	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
51. Picloram	0.5	0.5	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
52. Polychlorinated biphenyls (PCBs)~~.~~	Zero	0.0005	Some people who drink water containing PCBs in excess of the MCL over many years

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
53. Simazine	0.004	0.004	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
54. Toxaphene	Zero	0.003	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
F. Volatile Organic Chemicals (VOCs):			
55. Benzene	Zero	0.005	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
56. Carbon tetrachloride	Zero	0.005	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
57. Chlorobenzene (monochlorobenzene)	0.1	0.1	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
58. o-Dichlorobenzene	0.6	0.6	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
59. p-Dichlorobenzene	0.075	0.075	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
60. 1,2-Dichloroethane	Zero	0.005	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
61. 1,1-Dichloroethylene	0.007	0.007	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
62. cis-1,2-Dichloroethylene	0.07	0.07	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
63. trans-1,2-Dichloroethylene	0.1	0.1	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
64. Dichloromethane	Zero	0.005	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
65. 1,2-Dichloropropane	Zero	0.005	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
66. Ethylbenzene	0.7	0.7	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
67. Styrene	0.1	0.1	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
68. Tetrachloroethylene	Zero	0.005	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
69. Toluene	1	1	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
70. 1,2,4-Trichlorobenzene	0.07	0.07	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
71. 1,1,1-Trichloroethane	0.2	0.2	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
72. 1,1,2-Trichloroethane	0.003	0.005	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
73. Trichloroethylene	Zero	0.005	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
74. Vinyl chloride	Zero	0.002	Some people who drink water containing vinyl chloride in excess of the MCL over many

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			years may have an increased risk of getting cancer.
75. Xylenes (total)	10	10	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.
G. Radioactive Contaminants:			
76. Beta/photon emitters	Zero	4 mrem/yr[15]	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
77. Alpha emitters	Zero	15 pCi/L[16]	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
78. Combined radium (226 & 228)	Zero	5 pCi/L	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
79. Uranium17	Zero	30ìg/L	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
H. Disinfection Byproducts (DBPs), Byproduct Precursors, and Disinfectant Residuals: Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). EPA sets standards for controlling the levels of disinfectants and DBPs in drinking water, including trihalomethanes (THMs) and haloacetic acids (HAAs):[18]			
80. Total trihalomethanes (TTHMs)	N/A	0.08017[19,20]	Some people who drink water containing trihalomethanes in excess of the MCL over many

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.
81. Haloacetic Acids (HAA)	N/A	0.060[21]	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
82. Bromate	Zero	0.010	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
83. Chlorite	0.08	1.0	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
84. Chlorine	4 (MRDLG)[22]	4.0 (MRDL)[23]	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
85. Chloramines	4 (MRDLG)	4.0 (MRDL)	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
86a. Chlorine dioxide, where any 2 consecutive daily samples	0.8 (MRDLG)	0.8 (MRDL)	Some infants and young children who drink water

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
taken at the entrance to the distribution system are above the MRDL.			containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia. *Add for public notification only:* The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only not within the distribution system which delivers water to consumers. Continued compliance with chlorine dioxide levels within the distribution system minimizes the potential risk of these violations to consumers.
86b. Chlorine dioxide, where one or more water distribution systems are above the MRDL	0.8 (MRDLG)	0.8 (MRDL)	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia. *Add for public notification only:* The chlorine dioxide violations reported today include exceedances of the EPA standard within the distribution system which delivers water to consumers. Violations of the chlorine dioxide standard within the distribution system may harm human health based on short-term exposures. Certain groups, including fetuses, infants, and young children, may be especially susceptible to nervous system effects from

Contaminant	MCLG[1] mg/L	MCL[2] mg/L	Standard health effects language for public notification
			excessive chlorine dioxide exposure.
87. Control of DBP precursors (DBP)	None	TT	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
I. Other Treatment Techniques:			
88. Acrylamide	Zero	TT	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.
89. Epichlorohydrin	Zero	TT	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.

Appendix B to R.61-58.6 - endnotes

[†]Until March 31, 2016

[‡]Beginning April 1, 2016

[1]MCLG - Maximum contaminant level goal

[2]MCL - Maximum contaminant level

[3]For water systems analyzing at least 40 samples per month, no more than 5.0 percent of the monthly samples may be positive for total coliforms. For systems analyzing fewer than 40 samples per month, no more than one sample per month may be positive for total coliforms.

[4]There are various regulations that set turbidity standards for different types of systems, including the 1989 Surface Water Treatment Rule, the 1998 Interim Enhanced Surface Water Treatment Rule, and the 2002 Long Term 1 Enhanced Surface Water Treatment Rule. The MCL for the monthly turbidity average is 1 NTU; the MCL for the 2-day average is 5 NTU for systems that are required to filter but have not yet installed filtration.

[5]NTU - Nephelometric turbidity unit

[6]There are various regulations that set turbidity standards for different types of systems, including the 1989 Surface Water Treatment Rule (SWTR), the 1998 Interim Enhanced Surface Water Treatment Rule (IESWTR), and the 2001 Long Term 1 Enhanced Surface Water Treatment Rule. Systems subject to the Surface Water Treatment Rule (both filtered and unfiltered) may not exceed 5 NTU. In addition, in filtered systems, 95 percent of samples each month must not exceed 0.5 NTU in systems using conventional or direct filtration and must not exceed 1 NTU in systems using slow sand or diatomaceous earth filtration or other filtration technologies approved by the Department.
[7]TT - Treatment technique
[8]There are various regulations that set turbidity standards for different types of systems, including the 1989 Surface Water Treatment Rule (SWTR), the 1998 Interim Enhanced Surface Water Treatment Rule (IESWTR), and the 2002 Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR). For systems subject to the IESWTR (systems serving at least 10,000 people, using surface water or ground water under the direct influence of surface water), that use conventional filtration or direct filtration, after January 1, 2002, the turbidity level of a system's combined filter effluent may not exceed 0.3 NTU in at least 95 percent of monthly measurements, and the turbidity level of a system's combined filter effluent must not exceed 1 NTU at any time. Systems subject to the IESWTR using technologies other than conventional, direct, slow sand, or diatomaceous earth filtration must meet turbidity limits set by the Department. For systems subject to the LT1ESWTR (systems serving fewer than 10,000 people, using surface water or ground water under the direct influence of surface water) that use conventional filtration or direct filtration, after January 1, 2005 the turbidity level of a system's combined filter effluent may not exceed 0.3 NTU in at least 95 percent of monthly measurements, and the turbidity level of a system's combined filter effluent must not exceed 1 NTU at any time. Systems subject to the LT1ESWTR using technologies other than conventional, direct, slow sand, or diatomaceous earth filtration must meet turbidity limits set by the Department.
[9]The bacteria detected by heterotrophic plate count (HPC) are not necessarily harmful. HPC is simply an alternative method of determining disinfectant residual levels. The number of such bacteria is an indicator of whether there is enough disinfectant in the distribution system.
[10]SWTR, IESWTR, and LT1ESWTR treatment technique violations that involve turbidity exceedances may use the health effects language for turbidity instead.
[11]These arsenic values are effective January 23, 2006. Until then, the MCL is 0.05 mg/L and there is no MCLG.
[12]Millions fibers per liter.
[13]Action Level = 0.015 mg/L
[14]Action Level = 1.3 mg/L
[15]Millirems per years
[16]Picocuries per liter
[17]The uranium MCL is effective December 8, 2003 for all community water systems.
[18]Surface water systems and ground water systems under the direct influence of surface water are regulated under R.61-58.10. Community and non-transient non-community systems serving greater than, or equal to 10,000 must comply with R.61-58.13 DBP MCLs and disinfectant maximum residual disinfectant levels (MRDLs) beginning January 1, 2002. All other community and non-transient non-community systems must comply with R-61.58.13 DBP MCLs and MRDLs beginning January 1, 2004. Transient non-community surface water systems and ground water systems under the direct influence of surface water serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. All other transient non-community systems that use chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning on January 1, 2004.
[19]Community and non-transient non-community systems that must comply with R.61-58.14 TTHM and HAA5 MCLs of 0.080 mg/L and 0.060 mg/L, respectively (with compliance calculated as a locational running annual average) on the schedule in R.61-58.15.
[20]The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes.
[21]The MCL for haloacetic acids is the sum of the concentrations of the individual haloacetic acids.
[22]MRDLG—Maximum residual disinfectant level goal.
[23]MRDL—Maximum residual disinfectant level.

Amend 61-58.11, Control of Lead and Copper, to read:

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A. Applicability.

This regulation establishes 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. This regulation shall apply to each community and noncommunity water system, unless the water system meets all of the following conditions:

(1) Consists only of distribution and storage facilities (and does not have any collection and treatment facilities);

(2) Obtains all of its water from, but is not owned or operated by, a public water system to which such regulations apply;

(3) Does not sell water to any person; and

(4) Is not a carrier which conveys passengers in interstate commerce.

B. General Requirements.

(1) Applicability, effective date, and compliance deadlines

The requirements of this regulation, R.61-58.11, Control of Lead and Copper, constitute the state primary drinking water regulations for lead and copper.

(a) The provisions of R.61-58.11 apply to community water systems and non-transient, non-community water systems (in R.61-58.11, referred to as ''water systems'' or ''systems'').

(b) (Reserved).

(c) Community water systems and non-transient, non-community water systems must comply with the requirements of R.61-58.11 no later than October 16, 2024, except where otherwise specified at R.61-58.11.C, R.61-58.11.F, R.61-58.11.G, R.61-58.11.H, and R.61-58.11.L, or where an exemption in accordance with 40 CFR part 142, subpart C or F, has been established by the Administrator or where an exemption in accordance with R. 61-58.9 has been issued by the Department.

(d)(i) Until October 16, 2024, community water systems and non-transient, non-community water systems must comply with R.61-58.11, as effective on September 26, 2014.

(ii) If an exemption from R.61-58.11 has been issued in accordance with 40 CFR part 142, subpart C or F, prior to December 16, 2021, then the water systems must comply with R. 61-58.11 as effective on September 26, 2014, until the expiration of that exemption.

(2) Scope

The regulations in R.61-58.11 establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line inventory, lead service line replacement, public notice, monitoring for lead in schools and child care facilities, and public education. Several of the requirements in R.61-58.11 are prompted by the lead and copper action levels or the lead trigger level, specified in paragraph (3) of this section, as measured in samples collected at consumers' taps. The requirements for sampling for lead in schools and child care facilities and public education requirements in R.61-58.11 apply to all community water systems regardless of the results of the compliance tap sampling.

(3) Lead Trigger Level, Lead Action Level, and Copper Action Level

Trigger levels and action levels must be determined based on tap water samples collected in accordance with the tap sampling monitoring requirements of R.61-58.11.H for the purpose of calculating the 90^{th} percentile and tested using the analytical methods specified in R.61-58.11.K. The trigger level and action levels described in this paragraph (3) are applicable to all sections of R.61-58.11. Trigger level and action levels for lead and copper are as follows:

(a) The lead trigger level is exceeded if the 90^{th} percentile concentration of lead as specified in paragraph (3)(d) of this section is greater than ten micrograms per liter (10 µg/L).

(b) The lead action level is exceeded if the 90^{th} percentile concentration of lead as specified in paragraph (3)(d) of this section is greater than fifteen micrograms per liter (15 ug/L).

(c) The copper action level is exceeded if the 90^{th} percentile concentration of copper as specified in paragraph (3)(d) of this section is greater than 1.3 mg/L.

(d) For purposes of R.61-58.11 the 90^{th} percentile concentration shall be computed as follows:

(i) For systems that do not have lead service line sites and only have sites identified as Tier 3, Tier 4, or Tier 5 under R.61-58.11.H(1).

(A) The results of all lead or copper samples taken during a tap sampling 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.

(B) The number of samples taken during the tap sampling period shall be multiplied by 0.9.

(C) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (3)(d)(i)(B) of this section is the 90^{th} percentile concentration.

(D) For water systems serving fewer than one hundred (100) people that collect five (5) samples per tap sampling period, the 90^{th} percentile concentration is the average of the highest and second highest concentrations.

(E) For a water system that has been allowed by the Department to collect fewer than five (5) samples in accordance with R.61-58.11.H(3) or has failed to collect five (5) samples, the sample result with the highest concentration is considered the 90th percentile value.

(ii) For public water systems with lead service lines with sites identified as Tier 1 or Tier 2 under R.61-58.11.H(1) with enough Tier 1 or Tier 2 sites to meet the minimum number of sites listed in R.61-58.11.H(3):

(A) The results of all lead or copper samples taken at Tier 1 or Tier 2 sites during a tap sampling period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Sample results from Tier 3, Tier 4, or Tier 5 sites shall not be included in this calculation. Each sampling result shall be assigned a number, ascending by single integers beginning with the number one (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.

(B) The number of samples taken at Tier 1 or Tier 2 sites during the tap sampling period shall be multiplied by 0.9.

(C) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (3)(d)(ii)(B) of this section is the 90th percentile concentration.

(D) For water systems serving fewer than one hundred (100) people that collect five (5) samples per tap sampling period, the 90th percentile concentration is the average of the highest and second highest concentration.

(E) For a public water system that has been allowed by the Department to collect fewer than five (5) samples in accordance with R.61-58.11.H(3), or has failed to collect five (5) samples, the sample result with the highest concentration is considered the 90th percentile value.

(iii) For systems with lead service lines with sites identified as Tier 1 or Tier 2 under R.61-58.11.H(1) with insufficient number of Tier 1 or Tier 2 sites to meet the minimum number of sites listed in R.61-58.11.H(3):

(A) The results of all lead or copper samples taken at Tier 1 or Tier 2 sites along with the highest results from Tier 3, Tier 4, or Tier 5 sites sufficient to meet the minimum number of sites shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Sample results from any remaining Tier 3, Tier 4, and Tier 5 sites shall not be included in this calculation. Each sampling result shall be assigned a number, ascending by single integers beginning with the number one (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 minimum number of sites listed in R.61-58.11.H(3).

(B) The required minimum number of sites listed in R.61-58.11.H(3) shall be multiplied by 0.9.

(C) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (3)(d)(iii)(B) is the 90th percentile concentration.

(D) For water systems serving fewer than one hundred (100) people that collect five (5) samples per tap sampling period, the 90th percentile concentration is the average of the highest and second highest concentration.

(E) For a public water system that has been allowed by the Department to collect fewer than five (5) samples in accordance with R.61-58.11.H(3), or has failed to collect five (5) samples, the sample result with the highest concentration is considered the 90th percentile value.

(4) Corrosion Control Requirements

(a) All water systems shall install and operate optimal corrosion control treatment in accordance with R.61-58.11.C and R.61-58.11.D, and that meets the definition of optimal corrosion control treatment in R.61-58.B, Definitions.

(b) Any water system that complies with the applicable corrosion control treatment requirements specified by the Department under R.61-58.11.C and R.61-58.11.D, shall be deemed in compliance with the treatment requirement contained in paragraph (4)(a) of this section.

(c) Any small or non-transient, non-community water system that complies with the applicable small system compliance flexibility requirements specified by the Department under R.61-58.11.C(1)(c) and R.61-58.11.O is deemed to be in compliance with the treatment requirement in paragraph (4)(a) of this section.

(d) Any water system shall notify the Department in writing pursuant to R.61-58.11.L(1)(c) of any upcoming long-term change in treatment or addition of a new source as described in R.61-58.11.L(1)(c). The Department 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 Department may require any such water system to conduct additional monitoring or to take other action the Department deems appropriate to ensure that such water system maintains minimal levels of corrosion control in its distribution system.

(5) Source Water Requirements

(a) Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the Department under R.61-58.11.E.

(b) Any system that changes their source water or makes long-term treatment changes shall submit written documentation to the Department describing the change in accordance with R.61-58.11.C(1)(c), R.61-58.11.H(4)(b)(iv), and R.61-58.11.L(1)(c). The Department must review and approve the change before it is implemented by the water system.

(6) Lead Service Line Replacements and Inventory - Lead service line replacements must be conducted as follows:

(a) Any water system exceeding the lead action level specified at paragraph (3) of this section must complete mandatory lead service line replacement. Lead service line replacement must be conducted in accordance with R.61-58.11.F(7) and must include public education pursuant to R.61-58.11.G(1) and(2).

(b) Any water system exceeding the lead trigger level specified at paragraph (3) of this section must complete goal-based lead service line replacement pursuant to R.61-58.11.F(6) and public education pursuant to R.61-58.11.G(7) and (8).

(c) All water systems must prepare an inventory of service lines connected to its distribution system, whether or not they are owned or controlled by the water system, to identify those service lines that are made of lead or of unknown material. The inventory must be prepared in accordance with R.61-58.11.F(1).

(7) Public Education and Notification Requirements – Pursuant to R.61-58.11.G(4), all water systems must provide notification of lead tap water monitoring results to persons served at the sites (taps) that are tested. All community water systems must conduct annual outreach to local and state health agencies pursuant to R.61-58.11.G(9). In addition:

(a) Any water system exceeding the lead action level specified at paragraph (3) of this section shall implement the public education requirements in accordance with R.61-58.11.G(1) and (2).

(b) Any water system exceeding the lead trigger level specified at paragraph (3) of this section shall provide notification to all customers with a lead service line in accordance with R.61-58.11.G(7).

(c) Any water system exceeding the lead action level specified at paragraph (3) of this section shall notify the public in accordance with the public notification requirements in R.61-58.6.E.

(d) Any water system with lead service lines, galvanized requiring replacement, or lead status unknown service lines in their inventory as specified in R.61.58.11.F(1) shall inform all consumers with a lead service line, galvanized requiring replacement, or a lead status unknown service line in accordance with R.61-58.11.G(5).

(e) Any water system that fails to reach its goal lead service line replacement rate as required under R.61-58.11.F(6) shall conduct outreach activities in accordance with R.61-58.11.G(8).

(8) 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 shall be completed in compliance with Sections H, I, J, and K below.

(9) Reporting Requirements - Systems shall report to the Department any information required by the treatment provisions of this section.

(10) Recordkeeping Requirements - Systems shall maintain records in accordance with R.61-58.11.L below.

(11) Violation of the State Primary Drinking Water Regulations - Failure to comply with the applicable requirements of R.61-58.11.B through R.61-58.11.O, including requirements established by the Department pursuant to R.61-58.11, Control of Lead and Copper is a violation of the State Primary Drinking Water Regulations for lead and copper.

(12) Testing in Schools and Child Care Facilities - All community water systems must collect samples from all schools and child care facilities within its distribution system in accordance with R.61-58.11.N.

C. Applicability of Corrosion Control Treatment Steps to Small, Medium-Size and Large Water Systems.

(1) Corrosion Control Treatment

This section sets forth when a system must complete the corrosion control treatment steps for systems in paragraph (4) or (5) of this section to optimize or re-optimize corrosion control treatment based on size, whether the system has corrosion control treatment, and whether it has exceeded the lead trigger and/or action level and/or the copper action level.

(a) Large water system (serving greater than 50,000 people).

(i) Large water systems with corrosion control treatment that exceed either the lead trigger level or copper action level shall complete the corrosion control treatment steps specified in paragraph (4) of this section.

(ii) Large water systems without corrosion control treatment with 90th percentile results as calculated in accordance with R.61-58.11.B(3)(d) that exceed either the lead practical quantitation level of 0.005 mg/L or the copper action level shall complete the corrosion control treatment steps specified in paragraph (5) of this section.

(iii) Large water systems with corrosion control treatment with 90th percentile results as calculated in accordance with R.61-58.11.B(3)(d) that exceed the lead practical quantitation level but do not exceed the lead

trigger level or the copper action level may be required by the Department to complete the corrosion control treatment steps in paragraph (4) of this section.

(b) Medium-size water systems (serving greater than 10,000 and 50,000 people or less).

(i) Medium-size water systems with corrosion control treatment that exceed either the lead trigger level or copper action level shall complete the corrosion control treatment steps specified in paragraph (4) of this section.

(ii) Medium-size water systems without corrosion control treatment that exceed either the lead or copper action level shall complete the corrosion control treatment steps specified in paragraph (5) of this section.

(iii) Medium-size water systems without corrosion control treatment that exceed the lead trigger level but do not exceed the lead or copper action levels shall complete the treatment recommendation step specified in paragraph (5)(a) of this section (Step 1). The water system shall complete the remaining steps in paragraph (5) of this section if it subsequently exceeds either the lead or copper action level.

(c) Small water systems (serving 10,000 people or less) and non-transient, non-community water systems.

(i) Small and non-transient, non-community water systems with corrosion control treatment that exceed the lead trigger level or the lead action level but do not exceed the copper action level, shall complete the corrosion control treatment steps specified in paragraph (4) of this section, if corrosion control treatment is approved by the Department as a compliance option under R.61-58.11.O.

(ii) Small and non-transient, non-community water systems with corrosion control treatment that exceed the copper action level shall complete the corrosion control treatment steps specified in paragraph (4) of this section.

(iii) Small and non-transient, non-community water systems without corrosion control treatment that exceed the lead action level shall complete the corrosion control treatment steps specified in paragraph (5) of this section if corrosion control treatment is approved by the Department as a compliance option under R.61-58.11.O.

(iv) Small and non-transient, non-community water systems without corrosion control treatment that exceed the copper action level shall complete the corrosion control treatment steps specified in paragraph (5) of this section.

(2) Systems Deemed to have Optimized Corrosion Control.

A system is deemed to have optimal corrosion control treatment (OCCT) or re-optimized OCCT if the system satisfies one of the criteria specified in paragraphs (2)(a) through (c) of this section. Any such system deemed to have OCCT under this paragraph and which has corrosion control treatment in place shall continue to operate and maintain that treatment and meet any additional requirements that the Department determines to be appropriate to ensure optimal corrosion control treatment is maintained.

(a) A small or medium-size water system without corrosion control treatment is deemed to have optimal corrosion control if the water system does not exceed the lead action level and copper action level during two (2) consecutive six (6)-month tap sampling monitoring periods and thereafter remains at or below the lead trigger level and copper action level in all tap sampling periods conducted in accordance with R.61-58.11.H.

(b) A small or medium-size water system with corrosion control treatment is deemed to have optimal corrosion control treatment if the water system does not exceed the lead trigger level and copper action level during two (2) consecutive six (6)-month monitoring periods conducted in accordance with R.61-58.11.H and

thereafter remains at or below the lead trigger level and copper action level in all tap sampling periods conducted in accordance with R.61-58.11.H. Small or medium-size systems with corrosion control treatment that exceed the lead trigger level but do not exceed the lead and copper action levels during two (2) consecutive six (6)-month monitoring periods and thereafter remains at or below the lead and copper action levels in all tap sampling periods conducted in accordance with R.61-58.11.H are deemed to have re-optimized optimal corrosion control treatment if the system meets the requirements of this section. Where the Department has set optimal water quality parameters (OWQPs) under paragraph (4) or (5) of this section a system will not be eligible to be deemed to have optimized or re-optimized OCCT pursuant to paragraph (2) of this section

(c) Any water system is deemed to have optimized or re-optimized corrosion control if it submits results of tap water monitoring in accordance with R.61-58.11.H demonstrating that the 90th percentile tap water lead level is less than or equal to the lead practical quantitation level of 0.005 mg/L and does not exceed the copper action level for two (2) consecutive six (6)-month tap sampling monitoring periods, and does not have optimal water quality parameters that were set by the Department under paragraph (4) or (5) of this section. Any such system with 90th percentile tap sample results that thereafter exceeds the lead practical quantitation level or copper action level during any tap sampling period shall not be eligible to be deemed to have optimized OCCT in accordance with this paragraph (2)(c) without first completing the treatment steps specified in paragraph (4) or (5) of this section

(i) [Reserved]

(ii) Any water system deemed to have optimized corrosion control in accordance with this paragraph (2)(c) shall continue monitoring for lead and copper at the tap no less frequently than once every three (3) calendar years using the reduced number of sites specified in R. 61-58.11.H(3) and collecting the samples at times and locations specified in R. 61-58.11.H(4)(d)(v).

(iii) [Reserved]

(iv) [Reserved]

(v) [Reserved]

(3) Corrosion Control Steps Completion for Small and Medium-Size Water Systems Without Corrosion Control Treatment.

Any small or medium-sized system without corrosion control treatment required to complete the corrosion control steps in paragraph (5) of this section due to its exceedance of the lead or copper action level that does not exceed either the lead or copper action levels during each of two (2) consecutive six (6)-month tap sample monitoring periods pursuant to R.61-58.11.H prior to the start of Step 3 in paragraph (5)(c) of this section or Step 5 in paragraph (5)(e) of this section may cease completing the steps and is not required to complete Step 3 or Step 5, respectively, except that medium-sized systems with lead service lines and small systems with lead service lines that choose the corrosion control option pursuant to R. 61-58.11.O must complete a corrosion control treatment study under paragraph (5)(c)(i) of this section. Any system that initiates Step 5 must complete all remaining steps in paragraphs (5)(f) through (h) of this section and is not permitted to cease the steps. Any system that ceases the steps either prior to Step 3 or Step 5 and thereafter exceeds either the lead or copper action level shall not be permitted to cease the steps a second time and shall complete the applicable treatment steps beginning with the first treatment step which was not previously completed in its entirety. The Department may require a water system to repeat treatment steps previously completed by the water system when the Department determines that this is necessary to implement the treatment requirements of this section. The Department must notify the system in writing of such a determination and explain the basis for its decision.

(4) Treatment Steps and Deadlines for Water Systems Re-optimizing Corrosion Control Treatment.

Except as provided in paragraph (2) of this section or R.61-58.11.O, water systems with corrosion control treatment shall complete the following corrosion control treatment steps (described in the referenced portions of R.61-58.11.D, R.61-58.11.H, and R.61-58.11.I by the indicated time periods.

(a) Step 1:

(i) A water system other than those covered in paragraph (4)(a)(ii) of this section shall recommend re-optimized optimal corrosion control treatment (R.61-58.11.D(3)) within six (6) months after the end of the tap sampling period during which it exceeds either the lead trigger level or copper action level. The Department may approve modifications of the existing corrosion control treatment without a study for systems that exceed the lead trigger level, but do not exceed the lead or copper action level. The Department shall specify re-optimized corrosion control treatment within six (6) months of receiving the treatment recommendation. The system shall complete modifications to corrosion control treatment to have re-optimized corrosion control treatment installed within six (6) months of the Department specifying re-optimized corrosion control treatment.

(ii) A water system with lead service lines that exceeds the lead action level must harvest lead pipes from the distribution system and construct flowthrough pipe loops and operate the loops with finished water within one (1) year after the end of the tap sampling period during which it exceeds the lead action level. These water systems must proceed to Step 3 in paragraph (4)(c) of this section and conduct the corrosion control studies for re-optimization under paragraph (4)(c)(i) of this section using the pipe loops.

(b) Step 2:

(i) Large water systems shall conduct the corrosion control studies for re-optimization under paragraph (4)(c) of this section (Step 3) unless the system is at or below the lead action level and the Department has approved the modification of the existing corrosion control treatment made under paragraph (4)(c)(i) of this section (Step 1).

(ii) Within twelve (12) months after the end of the tap sampling period during which a small or medium-size water system with corrosion control treatment exceeds the lead trigger level or copper action level, the Department may require the water system to perform corrosion control studies for re-optimization (R.61-58.11.D(3)(b) or (c)). If the Department does not require the system to perform such studies, the Department must specify re-optimized corrosion control treatment (R.61-58.11.D(4)(b)) within the timeframes specified in paragraphs (4)(b)(ii)(A) and (B) of this section. The Department must provide its determination to the system in writing.

(A) For medium-size water systems, within twelve (12) months after the end of the tap sampling period during which such water system exceeds the lead trigger level or copper action level.

(B) For small water systems, within eighteen (18) months after the end of the tap sampling period during which such water system exceeds the lead trigger level or copper action level.

(c) Step 3:

(i) Any water system with lead service lines that exceeded the lead action level shall complete the corrosion control treatment studies for re-optimization within thirty (30) months after the end of the tap sampling period during which it exceeds the lead action level.

(ii) If the water system is required to perform corrosion control studies under paragraph (4)(b) of this section (Step 2), the water system shall complete the studies (R.61-58.11.D(3)(b)) within eighteen (18) months after the Department requires that such studies be conducted.

(d) Step 4:

(i) The Department shall designate re-optimized corrosion control treatment (R.61-58.11.D(4)(c)) within six (6) months after completion of paragraph (4)(c)(i) of this section (Step 3).

(ii) If the water system has performed corrosion control studies under paragraph (4)(b) of this section (Step 2), the Department shall designate re-optimized corrosion control treatment (R.61-58.11.D(4)(b) or (d)) within six (6) months after completion of paragraph (4)(c)(ii) of this section (Step 3).

(e) Step 5:

(i) Large water systems shall complete modifications to corrosion control treatment to have reoptimized corrosion control treatment installed within twelve (12) months after completion of paragraph (4)(d)(i) of this section (Step 4).

(ii) Small or medium-size water systems shall install re-optimized corrosion control treatment (R.61-58.11.D(5)(a)) within twelve (12) months after completion of paragraph (4)(d)(ii) of this section (Step 4).

(f) Step 6: Water systems must complete follow-up sampling (R.61-58.11.H(4)(b) and R.61-58.11.I(3)) within twelve (12) months after completion of paragraph (4)(e)(i) or (ii) of this section (Step 5).

(g) Step 7: The Department must review the water system's installation of treatment and designate optimal water quality control parameters (R.61-58.11.D(6)(a)) within six (6) months of completion of paragraph (4)(f) of this section (Step 6).

(h) Step 8: The water system must operate in compliance with the Department-designated optimal water quality control parameters (R.61-58.11.D(7)) and continue to conduct tap sampling (R.61-58.11.H(4)(c)) and water quality parameter monitoring under R.61-58.11.I(4).

(5) Treatment Steps and Deadlines for Systems Without Corrosion Control Treatment.

Except as provided in paragraph (2) of this section or R.61-58.11.O, water systems without corrosion control treatment must complete the following corrosion control treatment steps (described in the referenced portions of R.61-58.11.D, R.61-58.11.H, and R.61-58.11.I) by the indicated time periods.

(a) Step 1:

(i) A water system other than those covered in paragraph (5)(a)(ii) or (iii) of this section must recommend optimal corrosion control treatment (R.61-58.11.D(1)(a), (b), (c), or (d)) within six (6) months after the end of the tap sampling period during which it exceeds either the lead trigger level or copper action level.

(ii) A water system with lead service lines that exceeds the lead action level must harvest lead pipes from the distribution system and construct flowthrough pipe loops and operate the loops with finished water within one (1) year after the end of the tap sampling period during which it exceeds the lead action level. These water systems must proceed to Step 3 in paragraph (5)(c) of this section and conduct the corrosion control studies for optimization under paragraph (5)(c)(i) of this section using the pipe loops.

(iii) Large water systems under paragraph (1)(a)(ii) of this section must conduct the corrosion control studies for optimization under paragraph (5)(c) of this section (Step 3).

(b) Step 2: Within twelve (12) months after the end of the tap sampling period during which a system exceeds the lead or copper action level, if not otherwise required by this rule, the Department may require the water system to perform corrosion control studies (R. 61-58.11.D(2) below). The Department must notify the system in writing of this requirement. If the Department does not require the system to perform such studies, the

Department must specify optimal corrosion control treatment (R.61-58.11.D(4)) within the timeframes established in paragraphs (5)(b)(i) and (ii) of this section. The Department must provide its determination to the system in writing.

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

(ii) For small systems, within twenty-four (24) months after the end of the tap sampling monitoring period during which such water system exceeds the lead trigger level or copper action level.

(c) Step 3:

(i) Large water systems with or without lead service lines and medium or small systems with lead service lines that exceed the lead action level shall complete the corrosion control treatment studies for optimization within thirty (30) months after the end of the tap sampling period during which it exceeds the lead action level.

(ii) If the Department requires a water system to perform corrosion control studies under paragraph (5)(b) of this section (Step 2), the water system must complete the studies R.61-58.11.D(3)(a) within eighteen (18) months after the Department notifies the system in writing that such studies must be conducted.

(d) Step 4:

(i) The Department shall designate re-optimized corrosion control treatment (R.61-58.11.D(4)(c)) within six (6) months after completion of paragraph (4)(c)(i) of this section (Step 3).

(ii) If the water system has performed corrosion control studies under paragraph (5)(b) of this section (Step 2), the Department must designate optimal corrosion control treatment (R.61-58.11.D(4)(a)) within six (6) months after completion of paragraph (5)(c) of this section (Step 3).

(e) Step 5: The water system must install optimal corrosion control treatment (R.61-58.11.D(5)(a)) within twenty-four (24) months after the Department designates optimal corrosion control treatment under paragraph (5)(b) or (d) of this section (Step 2 or Step 4).

(f) Step 6: The water system shall complete follow-up sampling (R.61-58.11.H(4)(b) and R.61-58.11.I(3) below) within twelve (12) months after completion of paragraph (5)(e) of this section (Step 5).

(g) Step 7: The Department must review the system's installation of treatment and designate optimal water quality control parameters (R.61-58.11.D(6) below) within six (6) months of completion of paragraph (5)(f) of this section (Step 6).

(h) Step 8: The water system must operate in compliance with the Department-designated optimal water quality control parameters (R.61-58.11.D(7) below) and continue to conduct tap sampling (R.61-58.11.H(4)(c) and water quality parameter monitoring under R.61-58.11.I(4)).

(6) Treatment Steps and Deadlines for Small Community Water Systems and Non-Transient Non-Community Water Systems Electing Corrosion Control Treatment (CCT) as a Compliance Option Under R.51-58.11.O, or as Required by the Department.

Water systems selecting the corrosion control small system compliance flexibility option must complete the following steps by the indicated time periods.

(a) Step 1: A water system recommends corrosion control treatment as a small system compliance flexibility option under R.61-58.11.O(1)(b) within six (6) months after the end of the tap sampling period during which it exceeds either the lead trigger level or the lead action level.

(b) Step 2: The Department approves in writing the recommendation of corrosion control treatment as a small system compliance flexibility option or designates an alternative option in accordance with R.61-58.11.O(1) within six (6) months of the recommendation by the water system in paragraph (6)(a) of this section (Step 1). Water systems required by the Department to optimize or re-optimize corrosion control treatment must follow the schedules in paragraph (4) or (5) of this section, beginning with Step 3 in paragraph (4)(c) or (5)(c) of this section unless the Department specifies optimal corrosion control treatment pursuant to either paragraph (4)(b)(ii) or (5)(b)(ii) of this section, as applicable.

D. Description of Corrosion Control Treatment Requirements.

This section sets forth the requirements applicable to systems and states in the designation of optimal corrosion control treatment (OCCT) for a system that is optimizing or re-optimizing corrosion control treatment. Each system must complete the corrosion control treatment requirements in this section as applicable to such system under R.61-58.11.C.

(1) System Recommendation Regarding Corrosion Control Treatment for Systems that do not Contain Lead Service Lines and Systems with Lead Service Lines that do not Exceed the Lead Action Level.

(a) Any system under this paragraph (1) without corrosion control treatment that is required to recommend a treatment option in accordance with R.61-58.11.C(5) must, based on the results of lead and copper tap sampling and water quality parameter monitoring, recommend designation of one or more of the corrosion control treatments listed in paragraph (3)(a)(i) of this section. Small community water systems and non-transient, non-community water systems that exceed the copper action level must comply with this paragraph (1)(a). The Department may require the system to conduct additional water quality parameter monitoring to assist the Department in reviewing the system's recommendation.

(b) Any small community water system or non-transient, non-community water system in this paragraph (1) without corrosion control treatment that chooses to pursue a small water system compliance flexibility option and is required to recommend an option in accordance with R.61-58.11.C(6) must, based on the results of lead tap sampling and water quality parameter monitoring, recommend designation of one of the options listed in R.61-58.11.O. Systems with no lead service lines that exceed the lead action level and select corrosion control under R.61-58.11.O(1)(b) must recommend designation of one or more of the corrosion control treatments listed in paragraph (3)(a) of this section as the optimal corrosion control treatment for that system.

(c) Any system under this paragraph (1) that exceeds the lead action level and selects corrosion control under R.61-58.11.O(1)(b) must recommend designation of one or more of the corrosion control treatments listed in paragraph (3)(a)(i) of this section as the optimal corrosion control treatment for that system. A corrosion control study under paragraph (3) of this section is not required for medium and small systems that exceed the lead trigger level but do not exceed the lead and copper action levels, unless required by the Department.

(d) Any small community water system or non-transient, non-community water system with corrosion control treatment that exceeds the lead action level and selects corrosion control under R.61-58.11.O(1)(b) must recommend designation of one or more of the corrosion control treatments listed in paragraph (3)(b) of this section as the optimal corrosion control treatment for that system.

(e) The Department may waive the requirement for a system to recommend OCCT if the Department requires the system, in writing, to complete a corrosion control study within three (3) months after the end of the

tap sampling period during which the exceedance occurred. Such systems shall proceed directly to paragraph (3) of this section and complete a corrosion control study.

(2) Department Decision to Require Studies to Identify Initial Optimal Corrosion Control Treatment and Re-optimized Optimal Corrosion Control Treatment Except for Large Systems and Small and Medium Systems with Lead Service Lines that Exceed the Lead Action Level.

Corrosion control treatment studies are always required for large systems that exceed the lead action level, large water systems without corrosion control treatment with 90th percentile results that exceed either the lead practical quantitation level of 0.005 mg/L or the copper action level, medium-size systems with lead service lines that exceed the lead action level, and small systems with lead service lines that exceed the lead action level and select the corrosion control treatment option under R.61-58.11.O(1).

(a) The Department may require any small or medium-size system without corrosion control that exceeds either the lead or copper action level to perform corrosion control treatment studies under paragraph (3)(a) of this section to identify optimal corrosion control treatment for the system.

(b) The Department may require any small or medium-size system without corrosion control that exceeds the lead trigger level but not the lead or copper action level to perform corrosion control treatment studies under paragraph (3)(a) of this section to identify optimal corrosion control treatment for the system. This corrosion control treatment shall be installed if the lead or copper action level is subsequently exceeded.

(c) The Department may require any small or medium-size water systems with corrosion control treatment exceeding either the lead trigger level or copper action level to perform corrosion control treatment studies under paragraph (3)(b) of this section to identify re-optimized optimal corrosion control treatment for the system (i.e., optimal corrosion control treatment after a re-optimization evaluation).

(3) Performance of Corrosion Control Studies

(a) Water systems without corrosion control treatment that are required to conduct corrosion control studies must complete the following:

(i) Any water system without corrosion control treatment must 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 the system:

(A) Alkalinity and pH adjustment;

(B) The addition of an orthophosphate- or silicate-based corrosion inhibitor at a concentration sufficient to maintain an effective corrosion inhibitor residual concentration in all test samples;

(C) The addition of an orthophosphate-based corrosion inhibitor at a concentration sufficient to maintain an orthophosphate residual concentration of one milligram per liter (1 mg/L) (as PO_4) in all test samples; and

(D) The addition of an orthophosphate-based corrosion inhibitor at a concentration sufficient to maintain an orthophosphate residual concentration of three milligrams per liter (3 mg/L) (as PO_4) in all test samples.

(ii) The water system must 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 configurations. Large and medium systems, and small community water systems and non-transient, non-community water systems that select the corrosion

control treatment option under R.61-58.11.O with lead service lines that exceed the lead action level must conduct pipe rig/loop studies using harvested lead service lines from their distribution systems to assess the effectiveness of corrosion control treatment options on the existing pipe scale. For these systems, metal coupon tests can be used as a screen to reduce the number of options that are evaluated using pipe rig/loops to the current conditions and two (2) options.

(iii) The water system must measure the following water quality parameters in any tests conducted under this paragraph (3)(a)(iii) before and after evaluating the corrosion control treatments listed in paragraphs (3)(a)(i) and (ii) of this section:

(A) Lead;

(B) Copper;

(C) pH;

(D) Alkalinity;

(E) Orthophosphate as PO_4 (when an orthophosphate-based inhibitor is used); and

(F) Silicate (when a silicate-based inhibitor is used).

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

(A) Data and documentation showing that a particular corrosion control treatment has adversely affected other drinking water treatment processes when used by another water system with comparable water quality characteristics. Systems using coupon studies to screen and/or pipe loop/rig studies to evaluate treatment options must not exclude treatment strategies from the studies based on the constraints identified in this section.

(B) 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 drinking water quality treatment processes. Systems using coupon studies to screen and/or pipe loop/rig studies to evaluate treatment options must not exclude treatment strategies from the studies based on the constraints identified in this section unless the treatment was found to be ineffective in a previous pipe loop/rig study.

(v) The water system must evaluate the effect of the chemicals used for corrosion control treatment on other drinking water quality treatment processes. Systems using coupon studies to screen and/or pipe loop/rig studies to evaluate treatment options shall not exclude treatment strategies from the studies based on the effects identified in this section.

(vi) On the basis of an analysis of the data generated during each evaluation, the water system must recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system as defined in R.61-58.B. The water system must provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (3)(b)(i) through (v) of this section.

(b) Systems with corrosion control treatment that are required to conduct corrosion control studies to determine re-optimized OCCT must complete the following:

(i) The water system must evaluate the effectiveness of the following treatments, and if appropriate, combinations of the following treatments to identify the re-optimized optimal corrosion control treatment for the system:

(A) Alkalinity and/or pH adjustment, or re-adjustment;

(B) The addition of an orthophosphate- or silicate-based corrosion inhibitor at a concentration sufficient to maintain an effective corrosion inhibitor residual concentration in all test samples if no such inhibitor is utilized;

(C) The addition of an orthophosphate-based corrosion inhibitor at a concentration sufficient to maintain an orthophosphate residual concentration of one milligram per liter (1 mg/L) (PO_4) in all test samples unless the current inhibitor process already meets this residual; and

(D) The addition of an orthophosphate-based corrosion inhibitor at a concentration sufficient to maintain an orthophosphate residual concentration of three milligrams per liter (3 mg/L) (PO_4) in all test samples unless the current inhibitor process already meets this residual.

(ii) The water system must 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 configurations. If the water system has lead service lines and exceeds the lead action level, it must conduct pipe rig/loop studies using harvested lead service lines from their distribution systems to assess the effectiveness of corrosion control treatment options on the existing pipe scale. For these systems, metal coupon tests can be used as a screen to reduce the number of options that are evaluated using pipe rig/loops to the current conditions and two (2) options.

(iii) The water system must measure the following water quality parameters in any tests conducted under this paragraph (3)(b)(iii) before and after evaluating the corrosion control treatments listed in paragraphs (3)(b)(i) and (ii) of this section:

(A) Lead;

(B) Copper;

(C) pH;

(D) Alkalinity;

(E) Orthophosphate as PO_4 (when an orthophosphate-based inhibitor is used); and

(F) Silicate (when a silicate-based inhibitor is used).

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

(A) Data and documentation showing that a particular corrosion control treatment has adversely affected other drinking water treatment processes when used by another water system with comparable water quality characteristics. Systems using coupon studies to screen and/or pipe loop/rig studies to evaluate treatment options must not exclude treatment strategies from the studies based on the constraints identified in this section.

(B) 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 drinking water quality treatment processes. Systems using coupon studies to screen and/or pipe loop/rig studies

to evaluate treatment options shall not exclude treatment strategies from the studies based on the constraints identified in this section unless the treatment was found to be ineffective in a previous pipe loop/rig study.

(v) The water system must evaluate the effect of the chemicals used for corrosion control treatment on other drinking water quality treatment processes. Systems using coupon studies to screen and/or pipe loop/rig studies to evaluate treatment options shall not exclude treatment strategies from the studies based on the effects identified in this section.

(vi) On the basis of an analysis of the data generated during each evaluation, the water system must recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system as defined in R.61-58.B. The water system must provide a rationale for its recommendation along with all supporting documentation specified in paragraph (3)(a)(i) through (v) of this section.

(4) Department Designation of Optimized Optimal Corrosion Control Treatment and Re-optimized Optimal Corrosion Control Treatment.

When designating optimal corrosion control treatment, the Department must consider the effects that additional corrosion control treatment will have on water quality parameters and on other drinking water quality treatment processes. The Department must notify the water system of its designation of optimal corrosion control treatment in writing and explain the basis for this determination. If the Department requests additional information to aid its review, the water system must provide the information.

(a) Designation of OCCT for systems without corrosion control treatment.

Based upon considerations of available information including, where applicable, studies conducted under paragraph (3)(a) of this section and/or a system's recommended corrosion control treatment option, the Department must either approve the corrosion control treatment option recommended by the system or designate alternative corrosion control treatment(s) from among those listed in paragraph (3)(a)(i) of this section or, where applicable, an alternate small water system compliance flexibility option under R.61-58.11.O(1).

(b) Designation of re-optimized OCCT for systems with corrosion control treatment.

Based upon considerations of available information including, where applicable, studies conducted under paragraph (3)(b) of this section and/or a system's recommended treatment alternative, the Department must either approve the corrosion control treatment option recommended by the water system or designate alternative corrosion control treatment(s) from among those listed in paragraph (3)(b)(i) of this section or, where applicable, an alternate small water system compliance flexibility option under R.61-58.11.O.

(5) Installation of Optimal Corrosion Control Treatment and Re-optimization of Corrosion Control Treatment.

Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the Department under paragraph (4) of this section.

(6) Department Review of Treatment and Specification of Optimal Water Quality Control Parameters for Optimal Corrosion Control Treatment and Reoptimized Corrosion Control Treatment.

The Department must evaluate the results of all lead and copper tap sampling and water quality parameter sampling submitted by the water system and determine whether the water system has properly installed and operated the optimal corrosion control treatment designated by the Department in paragraph (4)(a) or (b) of this section, respectively. Upon reviewing the results of tap water and water quality parameter monitoring by the

water system, both before and after the water system installs optimal corrosion control treatment, the Department must designate:

(a) A minimum value or a range of values for pH measured at each entry point to the distribution system.

(b) A minimum pH value, measured in all tap samples. Such a value shall be equal to or greater than 7.0, unless the Department determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control.

(c) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the orthophosphate (as PO_4) or silicate measured at each entry point to the distribution.

(d) If a corrosion inhibitor is used, a minimum orthophosphate or silicate concentration measured in all tap samples that the Department determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system. When orthophosphate is used, such an orthophosphate concentration shall be equal to or greater than 0.5 mg/L (as PO_4) for OCCT designations under paragraph (4)(a) of this section and 1.0 mg/L for OCCT designations under paragraph (4)(b) of this section, unless the Department determines that meeting the applicable minimum orthophosphate residual is not technologically feasible or is not necessary for optimal corrosion control treatment.

(e) 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.

(f) The values for the applicable water quality control parameters, previously listed in this section, shall be those that the Department determines to reflect optimal corrosion control treatment for the water system. The Department may designate values for additional water quality control parameters determined by the Department to reflect optimal corrosion control treatment for the water system. The Department must notify the system in writing of these determinations and explain the basis for its decisions.

(7) Continued Operation and Monitoring for Optimal Corrosion Control Treatment and Re-optimized Optimal Corrosion Control Treatment.

All systems optimizing or re-optimizing corrosion control must 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 Department under paragraph (6) of this section, in accordance with this paragraph (7) for all samples collected under R.61-58.11.I(4) through (6). The requirements of this paragraph (7) apply to all systems, including consecutive systems that distribute water that has been treated to control corrosion by another system, and any water system with corrosion control treatment, optimal corrosion control treatment, or re-optimized OCCT that is not required to monitor water quality parameters under R.61-58.11.I. Compliance with the requirements of this paragraph (7) shall be determined every six (6) months, as specified under R.61-58.11.I(4). A water system is out of compliance with the requirements of this paragraph (7) for a six (6)-month period if it has excursions for any Department-specified parameter on more than nine (9) days, cumulatively, 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 Department. Daily values are calculated as set out in paragraphs (7)(a) through (c) of this section. The Department has the discretion to not include results of obvious sampling errors from this calculation. Sampling errors must still be recorded even when not included in calculations.

(a) On days when more than one (1) measurement for the water quality parameter is collected at the sampling location, the daily value must 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 40 CFR 142.16(d)(1)(ii) in the Department's application for a program

revision submitted pursuant to 40 CFR 142.12, the Department's formula shall be used to aggregate multiple measurements taken at a sampling point for the water quality parameters in lieu of the formula in this paragraph (7)(a).

(b) On days when only one (1) measurement for the water quality parameter is collected at the sampling location, the daily value shall be the result of that measurement.

(c) 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 sampling location.

(8) Modification of Department Treatment Decisions for Optimal Corrosion Control and Re-optimized Corrosion Control.

Upon its own initiative or in response to a request by a water system or other interested party, the Department may modify its determination of the optimal corrosion control treatment under paragraph (4) of this section, or optimal water quality control parameters under paragraph (6) of this section. A request for modification by a system or other interested party shall be in writing, explaining why the modification is appropriate, and providing supporting documentation. The Department may modify its determination where it concludes that such change is necessary to ensure that the water system continues to optimize corrosion control treatment. A revised determination must be made in writing, set forth the new treatment requirements and/or water quality parameters, explain the basis for the Department's decision, and provide an implementation schedule for completing the treatment modifications for re-optimized corrosion control treatment.

(9) Treatment Decisions by EPA in lieu of the Department on Optimal Corrosion Control Treatment and Re-optimized Corrosion Control Treatment.

Pursuant to the procedures in 40 CFR 142.19, EPA Regional Administrator may review optimal corrosion control treatment determinations made by the Department under paragraph (4)(a) or (b), (6), or (8) of this section and issue Federal treatment determinations consistent with the requirements of paragraph (4)(a) or (b), (6), or (8) of this section where the Regional Administrator finds that:

(a) A Department has failed to issue a treatment determination by the applicable deadlines contained in R.61-58.11.C;

(b) A Department has abused its discretion in a substantial number of cases or in cases affecting a substantial population; or

(c) The technical aspects of a Department's determination would be indefensible in a Federal enforcement action taken against a water system.

(10) Find-and-fix Assessment for Tap Sample Sites that Exceed the Lead Action Level.

The water system shall conduct the following steps, when a tap sample site exceeds the lead action level under monitoring conducted under R.61-58.11.H.

(a) Step 1: Corrosion Control Treatment Assessment. The water system must sample at a new water quality parameter site that is on the same size water main in the same pressure zone and located within a half mile of the location with the action level exceedance within five (5) days of receiving the sample results. Small water systems without corrosion control treatment may have up to fourteen (14) days to collect the samples. The water system must measure the following parameters:

(i) pH;

(ii) Alkalinity;

(iii) Orthophosphate (as PO_4), when an inhibitor containing an orthophosphate compound is used;

(iv) Silica, when an inhibitor containing a silicate compound is used; and

(v) Water systems with an existing water quality parameter location that meets the requirements of this section can conduct this sampling at that location.

(vi) All water systems required to meet optimal water quality control parameters but that do not have an existing water quality parameter location that meets the requirement of this section must add new sites to the minimum number of sites as described in R.61-58.11.I(7). Sites must be added until a system has twice the minimum number of sites listed in Table 1 to R.61-58.11.I(1)(b). When a system exceeds this upper threshold for the number of sites, the Department has discretion to determine if the newer site can better assess the effectiveness of the corrosion control treatment and to remove existing sites during sanitary survey evaluation of OCCT.

(b) Step 2: Site Assessment. Water systems shall collect a follow-up sample at any tap sample site that exceeds the action level within thirty (30) days of receiving the sample results. These follow-up samples may use different sample volumes or different sample collection procedures to assess the source of elevated lead levels. Samples collected under this section must be submitted to the Department but shall not be included in the 90^{th} percentile calculation for compliance monitoring under R.61-58.11.H. If the water system is unable to collect a follow-up sample at a site, the water system must provide documentation to the Department, explaining why it was unable to collect a follow-up sample.

(c) Step 3: Water systems shall evaluate the results of the monitoring conducted under this paragraph (10)(c) to determine if either localized or centralized adjustment of the optimal corrosion control treatment or other distribution system actions are necessary and submit the recommendation to the Department within six months after the end of the tap sampling period in which the site(s) exceeded the lead action level. Corrosion control treatment modification may not be necessary to address every exceedance. Other distribution system actions may include flushing to reduce water age. Water systems must note the cause of the elevated lead level, if known from the site assessment, in their recommendation to the Department as site-specific issues can be an important factor in why the system is not recommending any adjustment of corrosion control treatment or other distribution system actions. Systems in the process of optimizing or reoptimizing optimal corrosion control treatment under paragraphs (1) through (6) of this section do not need to submit a treatment recommendation for find-and-fix.

(d) Step 4: The Department shall approve the treatment recommendation or specify a different approach within six (6) months of completion of Step 3 as described in paragraph (10)(c) of this section.

(e) Step 5: If the Department-approved treatment recommendation requires the water system to adjust the optimal corrosion control treatment process, the water system must complete modifications to its corrosion control treatment within twelve (12) months after completion of Step 4 as described in paragraph (10)(d) of this section. Systems without corrosion control treatment required to install optimal corrosion control treatment must follow the schedule in R.61-58.11.C(5).

(f) Step 6: Water systems adjusting its optimal corrosion control treatment must complete follow-up sampling (R.61-58.11.H(4)(b) and R.61-58.11.I(3)) within twelve (12) months after completion of Step 5 as described in paragraph (10)(e) of this section.

(g) Step 7: For water systems adjusting its optimal corrosion control treatment, the Department must review the water system's modification of corrosion control treatment and designate optimal water quality control parameters (R.61-58.11.D(6)(a)) within six (6) months of completion of Step 6 as described in paragraph (10)(f) of this section.

(h) Step 8. For a water system adjusting its optimal corrosion control treatment, the water system must operate in compliance with the Department-designated optimal water quality control parameters (R.61-58.11.D(7)) and continue to conduct tap sampling (R.61-58.11.H(4)(c) and R.61-58.11.I(4)).

E. Source Water Treatment Requirements.

Systems shall complete the applicable source water monitoring and treatment requirements (described in the referenced portions of paragraph (2) of this section, and in R.61-58.11.H and R.61-58.11.J by the following deadlines.

(1) Deadlines for Completing Source Water Treatment Steps

(a) Step 1: A system exceeding the lead or copper action level shall complete lead and copper source water monitoring (R.61-58.11.J(2) below) and make a treatment recommendation to the Department (paragraph (2)(a) of this section) no later than one hundred eighty (180) days after the end of the monitoring period during which the lead or copper action level was exceeded.

(b) Step 2: The Department shall make a determination regarding source water treatment (paragraph (2)(b) of this section) within six (6) months after submission of monitoring results under Step 1.

(c) Step 3: If the Department requires installation of source water treatment, the system shall install the treatment (paragraph (2)(c) of this section) within twenty-four (24) months after completion of Step 2.

(d) Step 4: The system shall complete follow-up tap water monitoring (R.61-58.11.H(4)(b) below) and source water monitoring (R.61-58.11.J(3) below) within thirty-six (36) months after completion of Step 2.

(e) Step 5: The Department shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels (paragraph (2)(d) of the section) within six (6) months after completion of Step 4.

(f) Step 6: The system shall operate in compliance with the Department-specified maximum permissible lead and copper source water levels (paragraph (2)(d) of this section) and continue source water monitoring (R.61-58.11.J(4) below).

(2) Description of Source Water Treatment Requirements

(a) System Treatment Recommendation - Any system which exceeds the lead or copper action level shall recommend in writing to the Department the installation and operation of one of the source water treatments listed in paragraph (2)(b) 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.

(b) Department Determination Regarding Source Water Treatment - The Department 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 Department determines that treatment is needed, the Department 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 Department requests additional information to aid in its review, the water system shall provide the information by the date specified by the Department in its request. The Department shall notify the system in writing of its determination and set forth the basis for its decision.

(c) Installation of Source Water Treatment - Each system shall properly install and operate the source water treatment designated by the Department under paragraph (2)(b) of this section.

(d) Department Review of Source Water Treatment and Specification of Maximum Permissible Source Water Levels - The Department 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 Department. Based upon its review, the Department 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 Department shall notify the system in writing and explain the basis for its decision.

(e) Continued Operation and Maintenance - Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the Department at each sampling point monitored in accordance with R.61-58.11.J. 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 Department.

(f) Modification of Department Treatment Decisions - Upon its own initiative or in response to a request by a water system or other interested party, the Department may modify its determination of the source water treatment under paragraph (2)(b) of this section, or maximum permissible lead and copper concentrations for finished water entering the distribution system under paragraph (2)(d) 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 Department 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 Department's decision, and provide an implementation schedule for completing the treatment modifications.

F. Lead Service Line Inventory and Replacement Requirements.

(1) Lead Service Line Inventory.

All water systems must develop an inventory to identify the materials of service lines connected to the public water distribution system. The inventory must meet the following requirements:

(a) All water systems must develop an initial inventory by January 16, 2024, and submit it to the primacy agency in accordance with R.61-58.11.L(5).

(b) The inventory must include all service lines connected to the public water distribution system regardless of ownership status (e.g., where service line ownership is shared, the inventory would include both the portion of the service line owned by the water system and the customer-owned portion of the service line).

(c) A water system must use any information on lead and galvanized iron or steel that it has identified pursuant to R.61-58.5.V when conducting the inventory of service lines in its distribution system for the initial inventory under paragraph (1)(a) of this section. The water system must also review the sources of information listed in paragraphs (1)(c)(i) through (iv) of this section to identify service line materials for the initial inventory. The water system may use other sources of information not listed in paragraphs (1)(c)(i) through (iv) of this section if approved by the Department.

(i) All construction and plumbing codes, permits, and existing records or other documentation which indicates the service line materials used to connect structures to the distribution system.

(ii) All water system records, including distribution system maps and drawings, historical records on each service connection, meter installation records, historical capital improvement or master plans, and standard operating procedures.

(iii) 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.

(iv) Any resource, information, or identification method provided or required by the Department to assess service line materials.

(d) Each service line, or portion of the service line where ownership is split, must be categorized in the following manner:

(i) ''Lead'' where the service line is made of lead.

(ii) ''Galvanized Requiring Replacement'' where a galvanized service line is or was at any time downstream of a lead service line or is currently downstream of a ''Lead Status Unknown'' service line. If the water system is unable to demonstrate that the galvanized service line was never downstream of a lead service line, it must presume there was an upstream lead service line.

(iii) ''Non-lead'' where the service line is determined through an evidence-based record, method, or technique not to be lead or galvanized requiring replacement. The water system may classify the actual material of the service line (i.e., plastic or copper) as an alternative to classifying it as ''Non-lead.''

(iv) ''Lead Status Unknown'' where the service line material is not known to be lead, galvanized requiring replacement, or a non-lead service line, such as where there is no documented evidence supporting material classification. The water system may classify the line as ''Unknown'' as an alternative to classifying it as ''Lead Status Unknown,'' however, all requirements that apply to ''Lead Status Unknown'' service lines must also apply to those classified as ''Unknown.'' Water systems may elect to provide more information regarding their unknown lines as long as the inventory clearly distinguishes unknown service lines from those where the material has been verified through records or inspection.

(e) Water systems shall identify and track service line materials in the inventory as they are encountered in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities).

(f) Water systems must update the inventory based on all applicable sources described in paragraphs (1)(c) and (e) of this section and any lead service line replacements or service line material inspections that may have been conducted. The water system may use other sources of information if approved by the Department and must use other sources of information provided or required by the Department. Water systems must submit the updated inventory to the Department in accordance with R.61-58.11.L(5). The inventory updates must be reflected in the publicly accessible inventory no less frequently than when required to be submitted to the Department.

(i) Water systems whose inventories contain only non-lead service lines are not required to provide inventory updates to the Department or to the public. If, in the future, such a water system finds a lead service line within its system, it must prepare an updated inventory in accordance with paragraph (1) of this section on a schedule established by the Department.

(ii) [Reserved]

(g) To calculate the number of service line replacements applicable to paragraphs (6) and (7) of this section, the replacement rate must be applied to the sum of known lead and galvanized requiring replacement service lines when the system first exceeds the trigger or action level plus the number of lead status unknown service lines in the beginning of each year of a system's annual goal or mandatory lead service line replacement program.

(i) Each service line shall count only once for purposes of calculating the required number of service line replacements, even where the ownership of the service line is split and both the customer-owned and system-owned portions require replacement.

(ii) The number of service lines requiring replacement must be updated annually to subtract the number of lead status unknown service lines that were discovered to be non-lead and to add the number of non-lead service lines that were discovered to be a lead or galvanized requiring replacement service line.

(iii) Verification of a lead status unknown service line as non-lead in the inventory does not count as a service line replacement.

(h) The service line materials inventory must be publicly accessible.

(i) The inventory must include a location identifier, such as a street address, block, intersection, or landmark, associated with each lead service line and galvanized requiring replacement service line. Water systems may, but are not required to, include a locational identifier for lead status unknown service lines or list the exact address of each service line.

(ii) Water systems serving greater than 50,000 persons must make the publicly accessible inventory available online.

(i) When a water system has no lead, galvanized requiring replacement, or lead status unknown service lines (regardless of ownership) in its inventory, it may comply with the requirements in paragraph (1)(h) of this section using a written statement, in lieu of the inventory, declaring that the distribution system has no lead service lines or galvanized requiring replacement service lines. The statement must include a general description of all applicable sources described in paragraphs (1)(c), (e), and (f) of this section used to make this determination.

(j) Instructions to access the service line inventory (including inventories consisting only of a statement in accordance with paragraph (1)(i) of this section) must be included in Consumer Confidence Report in accordance with R.61-58.12.C(4)(d)(xi).

(2) Lead Service Line Replacement Plan.

All water systems with one (1) or more lead, galvanized requiring replacement, or lead status unknown service lines in their distribution system must, by January 16, 2024, submit a lead service line replacement plan to the Department in accordance with R.61-58.11.L(5). The lead service line replacement plan must be sufficiently detailed to ensure a system is able to comply with the lead service line replacement requirements in accordance with this section. The plan must include a description of:

(a) A strategy for determining the composition of lead status unknown service lines in its inventory;

(b) A procedure for conducting full lead service line replacement;

(c) A strategy for informing customers before a full or partial lead service line replacement;

(d) For systems that serve more than 10,000 persons, a lead service line replacement goal rate recommended by the system in the event of a lead trigger level exceedance;

(e) A procedure for customers to flush service lines and premise plumbing of particulate lead;

(f) A lead service line replacement prioritization strategy based on factors including, but not limited to, the targeting of known lead service lines, lead service line replacement for disadvantaged consumers and populations most sensitive to the effects of lead; and

(g) A funding strategy for conducting lead service line replacements which considers ways to accommodate customers that are unable to pay to replace the portion they own.

(3) Operating Procedures for Replacing Lead Goosenecks, Pigtails, or Connectors.

(a) The water system must replace any lead gooseneck, pigtail, or connector it owns when encountered during planned or unplanned water system infrastructure work.

(b) The water system must offer to replace a customer-owned lead gooseneck, pigtail, or connector; however, the water system is not required to bear the cost of replacement of the customer-owned parts.

(c) The water system is not required to replace a customer-owned lead gooseneck, pigtail, or connector if the customer objects to its replacement.

(d) The replacement of a lead gooseneck, pigtail, or connector does not count for the purposes of meeting the requirements for goal-based or mandatory lead service line replacements, in accordance with paragraphs (6) and (7) of this section, respectively.

(e) Upon replacement of any gooseneck, pigtail, or connector that is attached to a lead service line, the water system must follow risk mitigation procedures specified in R.61-58.11.G(6)(b).

(f) The requirements of paragraphs (3)(a), (b), (c), and (e) of this section do not apply if state law includes lead connectors in the definition of lead service lines, prohibits partial lead service line replacements, and requires systems to remove all lead service lines irrespective of a system's 90th percentile lead level.

(4) Requirements for Conducting Lead Service Line Replacement that may Result in Partial Replacement.

(a) Any water system that plans to partially replace a lead service line (e.g., replace only the portion of a lead service line that it owns) in coordination with planned infrastructure work must provide notice to the owner of the affected service line, or the owner's authorized agent, as well as non-owner resident(s) served by the affected service line at least forty-five (45) days prior to the replacement. The notice must explain that the system will replace the portion of the line it owns and offer to replace the portion of the service line not owned by the water system. The water system is not required to bear the cost of replacement of the portion of the affected service line not owned by the water system.

(i) Before the affected service line is returned to service, the water system must provide notification meeting the content requirements of R.61-58.11.G(1) explaining that consumers may experience a temporary increase of lead levels in their drinking water due to the replacement, information about the health effects of lead, and actions consumers can take to minimize their exposure to lead in drinking water. In instances where multi-family dwellings are served by the affected service line to be partially replaced, the water system may elect to post the information at a conspicuous location instead of providing individual notification to all residents.

(ii) The water system must provide information about service line flushing in accordance with the procedure developed in paragraph (2)(e) of this section before the affected service line is returned to service.

(iii) The water system must provide the consumer with a pitcher filter or point-of-use device certified by an American National Standards Institute accredited certifier to reduce lead, six (6) months of replacement cartridges, and instructions for use before the affected service line is returned to service. If the affected service line serves more than one (1) residence or non-residential unit (e.g., a multi-unit building), the water system must provide a filter, six (6) months of replacement cartridges, and use instructions to every residence in the building.

(iv) The water system must offer to collect a follow-up tap sample between three (3) months and six (6) months after completion of any partial replacement of a lead service line. The water system must provide the results of the sample in accordance with R.61-58.11.G(4).

(b) Any water system that replaces the portion of the lead service line it owns due to an emergency repair, must provide notice and risk mitigation measures to the persons served by the affected service line in accordance with paragraphs (4)(a)(i) through (iii) of this section before the affected service line is returned to service.

(c) When a water system is notified by the customer that the customer's portion of the lead service line will be replaced, the water system must make a good faith effort to coordinate simultaneous replacement of its portion of the service line. If simultaneous replacement cannot be conducted, the water system must replace its portion as soon as practicable but no later than forty-five (45) days from the date the customer replaces its portion of the lead service line. The water system must provide notification and risk mitigation measure in accordance with paragraphs (4)(a)(i) through (iii) of this section. If the water system fails to replace its portion of the lead service line within forty-five (45) days from the date the customer replaces the customer's portion of the lead service line, the water system must notify the Department within thirty (30) days of failing to meet the deadline in accordance with R.61-58.11.L(5) and complete the replacement no later than one hundred eighty (180) days of the date the customer replaces its portion.

(d) When a water system is notified or otherwise learns that replacement of a customer-owned lead service line has occurred within the previous six (6) months and left in place a system-owned lead service line, the water system must replace its portion within forty-five (45) days from the day of becoming aware of the customer replacement. The water system must provide notification and risk mitigation measures in accordance with paragraphs (4)(a)(i) through (iii) of this section within twenty-four (24) hours of becoming aware of the customer replacement. If the water system fails to replace its portion of the affected service line within forty-five (45) days of becoming aware of the customer replacement, it must notify the Department within thirty (30) days of failing to meet the deadline in accordance with R.61-58.11.L(5). The water system must complete the replacement no later than one hundred eighty (180) days after the date the customer replaces its portion.

(e) When a water system is notified or otherwise learns of a replacement of a customer-owned lead service line which has occurred more than six (6) months in the past, the water system is not required to complete the lead service line replacement of the system-owned portion under this paragraph (4)(e), however the system-owned portion must still be included in the calculation of a lead service line replacement rate under paragraph (1)(g) of this section.

(5) Requirements for Conducting Full Lead Service Line Replacement.

Any water system that conducts a full lead service line replacement must provide notice to the owner of the affected service line, or the owner's authorized agent, as well as non-owner resident(s) served by the affected service line within twenty-four (24) hours of completion of the replacement. The water system is not required to bear the cost of replacement of the portion of the lead service line not owned by the water system.

(a) The notification must meet the content requirements of R.61-58.11.G(1) explaining that consumers may experience a temporary increase of lead levels in their drinking water due to the replacement, information about the health effects of lead, and actions consumers can take to minimize their exposure to lead in drinking water. In instances where multi-family dwellings are served by the lead service line to be replaced, the water system may elect to post the information at a conspicuous location instead of providing individual notification to all residents.

(b) The water system must provide information about service line flushing in accordance with the procedure developed under paragraph (2)(e) of this section before the replaced service line is returned to service.

(c) The water system must provide the consumer with a pitcher filter or point-of-use device certified by an American National Standards Institute accredited certifier to reduce lead, six (6) months of replacement cartridges, and instructions for use before the replaced service line is returned to service. If the lead service line serves more than one (1) residence or non-residential unit (e.g., a multi-unit building), the water system must provide a filter, six (6) months of replacement cartridges, and use instructions to every residence in the building.

(d) The water system must offer to the consumer to take a follow-up tap sample between three (3) months and six (6) months after completion of any full replacement of a lead service line. The water system must provide the results of the sample to the consumer in accordance with paragraph (4) of this section.

(6) Goal-based Full Lead Service Line Replacement for Water Systems Whose 90th Percentile Lead Level is Above the Trigger Level but at or Below the Lead Action Level.

Water systems that serve more than 10,000 persons whose 90th percentile lead level from tap samples taken pursuant to R.61-58.11.H is above the lead trigger level but at or below the lead action level must conduct goal-based full lead service line replacement at a rate approved by the Department.

(a) The water system must calculate the number of full lead service line replacements it must conduct annually in accordance with paragraph (1)(g) of this section.

(b) Replacement of lead service lines must be conducted in accordance with the requirements of paragraph (4) or (5) of this section.

(c) Only full lead service line replacements count towards a water system's annual replacement goal. Partial lead service line replacements do not count towards the goal.

(d) The water system must provide information to customers with lead, galvanized requiring replacement, or lead status unknown service lines as required in R.61-58.11.G(7).

(e) Any water system that fails to meet its lead service line replacement goal must:

(i) Conduct public outreach activities pursuant to R.61-58.11.G(8) until either the water system meets its replacement goal, or tap sampling shows the 90th percentile of lead is at or below the trigger level for two (2) consecutive one (1)-year monitoring periods.

(ii) Recommence its goal-based lead service line replacement program pursuant to this paragraph (6)(e)(ii) if the 90th percentile lead level anytime thereafter exceeds the lead trigger level but is at or below the lead action level.

(f) The first year of lead service line replacement shall begin on the first day following the end of the tap sampling period in which the lead trigger level was exceeded. If sampling is required annually or less frequently, the end of the tap sampling monitoring period is September 30 of the calendar year in which the sampling occurs.

If the Department has established an alternate monitoring period, then the end of the monitoring period will be the last day of that period.

(7) Mandatory Full Lead Service Line Replacement for Water Systems Whose 90th Percentile Lead Level Exceeds the Lead Action Level.

Water systems serving more than 10,000 persons that exceed the lead action level in tap samples taken pursuant to R.61-58.11.H must conduct mandatory full lead service line replacement at an average annual rate of at least three percent (3%), calculated on a two (2)-year rolling basis.

(a) The average annual number of full lead service line replacements must be calculated in accordance with paragraph (1)(g) of this section.

(b) Lead service line replacement must be conducted in accordance with the requirements of paragraphs (4) and (5) of this section.

(c) Only full lead service line replacement count towards a water system's mandatory replacement rate of at least three percent (3%) annually. Partial lead service line replacements do not count towards the mandatory replacement rate.

(d) Water systems must provide information to customers with lead, galvanized requiring replacement, or lead status unknown service lines consistent with R.61-58.11.G(7).

(e) Community water systems serving 10,000 or fewer persons and non-transient, non-community water systems for which the Department has approved or designated lead service line replacement as a compliance option must conduct lead service line replacement as described in R.61-58.11.O(1)(a). Replacement of lead service lines must be conducted in accordance with the requirements of paragraphs (4) and (5) of this section.

(f) A water system may cease mandatory lead service line replacement when it has conducted a cumulative percentage of replacements greater than or equal to three percent (3%), or other percentage specified in paragraph (7)(i) of this section, of the service lines specified in paragraph (1)(g) of this section multiplied by the number of years that elapsed from when the system most recently began mandatory lead service line replacement and the date on which the system's 90th percentile lead level, in accordance with R.61-58.11.B(3)(d), has been calculated to be at or below the lead action level during each of four (4) consecutive six (6)-month tap sampling monitoring periods. If tap samples collected in any such system thereafter exceed the lead action level, the system shall recommence mandatory lead service line replacement at the same two (2)-year rolling average rate, unless the Department has designated an alternate replacement rate under paragraph (7)(i) of this section.

(g) The water system may also cease mandatory lead service line replacement if the system has no remaining lead status unknown service lines in its inventory and obtains refusals to conduct full lead service line replacement or non-responses from every remaining customer in its distribution system served by either a full or partial lead service line, or a galvanized requiring replacement service line. For purposes of this paragraph (7)(g) and in accordance with R.61-58.11.L(5), a water system must provide documentation to the Department of customer refusals including a refusal signed by the customer, documentation of a verbal statement made by the customer refusing replacement, or documentation of no response from the customer after the water system made a minimum of two (2) good faith attempts to reach the customer regarding full lead service line replacement. If the water system's 90th percentile exceeds the lead action level again, it must contact all customers served by a full or partial lead service line or a galvanized requiring replacement service line with an offer to replace the customer-owned portion. Nothing in this paragraph (7)(g) requires the water system to bear the cost of replacement of the customer-owned lead service line.

(h) The first year of lead service line replacement shall begin on the first day following the end of the tap sampling period in which lead action level was exceeded.

(i) The Department 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 the Department determines a shorter replacement schedule is feasible. The Department shall make this determination in writing and notify the system of its finding within six (6) months after the system is required to begin lead service line replacement under paragraph (7) of this section.

(8) Reporting to Demonstrate Compliance to Department.

To demonstrate compliance with paragraphs (1) through (7) of this section, a system shall report to the Department the information specified in R.61-58.11.L(5).

G. Public Education and Supplemental Monitoring and Mitigation 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 sampled, as specified in paragraph (4) of this section. A water system with lead, galvanized requiring replacement, or lead status unknown service lines must deliver public education materials to persons with a lead, galvanized requiring replacement, or lead status unknown service line as specified in paragraphs (5) through (7) of this section. All community water systems must conduct annual outreach to local and state health agencies as outlined in paragraph (9) of this section. A community water system serving more than 10,000 persons that fails to meet its annual lead service line replacement goal as required under R.61-58.11.F(6) shall conduct outreach activities as specified in paragraph (8) of this section. A water system that exceeds the lead action level based on tap water samples collected in accordance with R.61-58.11.H shall deliver the public education materials contained in paragraph (1) of this section and in accordance with the requirements in paragraph (2) of this section. Water systems that exceed the lead action level shall offer to sample the tap water of any customer who requests it in accordance with paragraph (3) of this section. All small community water systems and non-transient, non-community water systems that elect to implement point-of-use (POU) devices under R.61-58.11.O must provide public education materials to inform users how to properly use POU devices in accordance with paragraph (10) of this section.

(1) Content of Written Public Education Materials.

(a) Community water systems and non-transient, non-community water systems. Water systems must include the following elements in printed material (e.g., brochures and pamphlets) in the same order as listed in paragraphs (1)(a)(i) through (vii) of this section. In addition, language in paragraphs (1)(a)(i), (ii), and (vi) of this section must be included in the materials, exactly as written, except for the text in brackets in paragraphs (1)(a)(i), (ii), and (vi) of this section for which the water system must include system-specific information. Any additional information presented by a water system must be consistent with the information in paragraphs (1)(a)(i) through (vii) of this section and be in plain language that can be understood by the general public. Water systems must submit all written public education materials to the Department prior to delivery. The Department may require the system to obtain approval of the content of written public materials prior to delivery. Water systems may change the mandatory language in paragraphs (1)(a)(i) and (ii) of this section only with Department approval.

(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.

(ii) Health effects of lead. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

(iii) Sources of Lead.

(A) Explain what lead is.

(B) Explain possible sources of lead in drinking water and how lead enters drinking water. Include information on homes/building plumbing materials and service lines that may contain lead.

(C) Discuss other important sources of lead exposure in addition to drinking water (e.g., paint).

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

(A) Encourage running the water to flush out the lead.

(B) Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula.

(C) Explain that boiling water does not reduce lead levels.

(D) Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.

(E) Suggest that parents have their child's blood tested for lead.

(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 website at http://www.epa.gov/lead or contact your health care provider.

(vii) Information on lead service lines. For systems with lead service lines, discuss opportunities to replace lead service lines and explain how to access the service line inventory so the consumer can find out if they have a lead service line. Include information on programs that provide financing solutions to assist property owners with replacement of their portion of a lead service line, and a statement that the water system is required to replace its portion of a lead service line when the property owner notifies them they are replacing their portion of the lead service line.

(b) Community water systems. In addition to including the elements specified in paragraph (1)(a) of this section, community water systems must:

(i) Tell consumers how to get their water tested.

(ii) Discuss lead in plumbing components and the difference between low lead and lead free.

(2) Delivery of public education materials:

(a) For public water systems serving a large proportion of non-English speaking consumers, as determined by the Department, the public education material 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.

(b) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with R.61-58.11.H and that is not already conducting public education tasks under this section, must conduct the public education tasks under this section within 60 days after the end of the tap sampling period in which the exceedance occurred:

(i) Deliver printed materials meeting the content requirements of paragraph (1) of this section to all bill paying customers.

(ii) (A) Contact customers who are most at risk by delivering education materials that meet the content requirements of paragraph (1) 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 (1) of this section to all organizations on the provided lists.

(B) Contact customers who are most at risk by delivering materials that meet the content requirements of paragraph (1) of this section to the following organizations listed in (2)(b)(ii)(B)(1) through (7) of this section that are located within the water system's service area, along with an information notice that encourages distribution to all the organization's potentially affected customers or community water system's users:

(1) Schools, child care facilities, and 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.

(7) Obstetricians-Gynecologists and Midwives.

(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 (1) 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 Gynecologist 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 Department; specifically, the Department may allow a separate mailing of public education materials to customers if the water system cannot place the information on water bills.

(iv) Post materials meeting the content requirements of paragraph (1) of this section on the water system's Web site if the system serves a population of greater than 100,000.

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

(vi) In addition to paragraph 2(b)(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 Department.

(A) Public Service Announcements.

(B) Paid advertisements.

(C) Public Area Information 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 Department.

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

(c) As long as a community water system exceeds the action level, it must repeat the activities pursuant to paragraph (2)(b) of this section as described in paragraphs (2)(c)(i) through (iv) of this section.

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

(ii) A community water system shall repeat the tasks contained in paragraph (2)(b)(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 (2)(b)(iv) of this section.

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

(d) Within sixty (60) days after the end of the tap sampling period in which the exceedance occurred (unless it already is repeating public education tasks pursuant to paragraph (2)(e) of this section), a non-transient non-community water system shall deliver the public education materials specified in paragraph (1) 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 Department 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 tap sampling period is September 30 of the calendar year in which the sampling occurs, or, if the Department has established an alternate tap sampling period, the last day of that period.

(e) A non-transient non-community water system shall repeat the tasks contained in paragraph (2)(d) of this section at least once during each calendar year in which the system exceeds the lead action level. The Department can allow activities in (2)(d) of this section to extend beyond the sixty (60) day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the Department in advance of the sixty (60) day deadline.

(f) A water system may discontinue delivery of public education materials if the system is at or below the lead action level during the most recent six-month monitoring period conducted pursuant to R.61-58.11.H. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any tap sampling period.

(g) A community water system may apply to the Department, in writing (unless the Department has waived the requirement for prior Department approval), to use only the text specified in paragraph (1)(a) of this section in lieu of the text in paragraphs (1)(a) and (1)(b) of this section and to perform the tasks listed in paragraphs (2)(d) and (2)(e) of this section in lieu of the tasks in paragraphs (2)(b) and (2)(c) 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.

(h) A community water system serving 3,300 or fewer people may limit certain aspects of their public education programs as follows:

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

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

(3) 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 R.61-58.11.H 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.

(4) Notification of results.

(a) Reporting requirements. All water systems must provide a notice of the individual tap results from lead tap water monitoring carried out under the requirements of R.61-58.11.H 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 building where the tap was sampled).

(b) Timing of notification. A water system must provide the consumer notice as soon as practical, but no later than the following timeframes.

(i) For individual samples that do not exceed fifteen micrograms per liter (15 µg/L) of lead, no later than thirty (30) days after the water system learns of the tap monitoring results.

(ii) For individual samples that exceed fifteen micrograms per liter (15 µg/L) of lead, as soon as practicable but no later than three (3) calendar days after the water system learns of the tap monitoring results. Water systems that choose to mail the notification must assure those letters are postmarked within three (3) days.

(c) 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 R.61-58.12.C(3).

(d) Delivery.

(i) For lead tap sample results that do not exceed fifteen micrograms per liter (15 µg/L), the water systems must provide consumer notice to persons served at the tap that was sampled, by mail or by another method approved by the Department. For example, upon approval by the Department, 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.

(ii) For lead tap sample results that exceed fifteen micrograms per liter (15 µg/L), the water systems must provide consumer notice to persons served by the tap that was sampled; such notice must be provided electronically or by phone, hand delivery, by mail, or another method approved by the Department.

(5) Notification of Known or Potential Service Line Containing Lead

(a) Notification requirements. All water systems with lead, galvanized requiring replacement, or lead status unknown service lines in their inventory pursuant to R.61-58.11.F(1) must inform all persons served by the water system at the service connection with a lead, galvanized requiring replacement, or lead status unknown service line.

(b) Timing of notification. A water system must provide the initial notification within thirty (30) days of completion of the lead service line inventory required under R.61-58.11.F and repeat the notification on an annual basis until the entire service connection is no longer a lead, galvanized requiring replacement, or lead status unknown service line. For new customers, water systems shall also provide the notice at the time of service initiation.

(c) Content

(i) Persons served by a confirmed lead service line. The notice must include a statement that the person's service line is lead, an explanation of the health effects of lead that meets the requirements of paragraph (1)(a)(ii) of this section, steps persons at the service connection can take to reduce exposure to lead in drinking water, information about opportunities to replace lead service lines as well as programs that provide financing solutions to assist property owners with replacement of their portion of a lead service line, and a statement that the water system is required to replace its portion of a lead service line when the property owner notifies them they are replacing their portion of the lead service line.

(ii) Persons served by a galvanized requiring replacement service line. The notice must include a statement that the person's service line is galvanized requiring replacement, an explanation of the health effects of lead, steps persons at the service connection can take to reduce exposure to lead in drinking water, and information about opportunities for replacement of the service line.

(iii) Persons served by a lead status unknown service line. The notice must include a statement that the person's service line material is unknown but may be lead, an explanation of the health effects of lead that meets the requirements of paragraph (1)(a)(ii) of this section, steps persons at the service connection can take to reduce exposure to lead in drinking water, and information about opportunities to verify the material of the service line.

(d) Delivery. The notice must be provided to persons served by the water system at the service connection with a lead, galvanized requiring replacement, or lead status unknown service line, by mail or by another method approved by the Department.

(6) Notification Due to a Disturbance to a Known or Potential Service Line Containing Lead

(a) Water systems that cause disturbance to a lead, galvanized requiring replacement, or lead status unknown service line that results in the water to an individual service line being shut off or bypassed, such as operating a valve on a service line or meter setter, and without conducting a partial or full lead service line replacement, must provide the persons served by the water system at the service connection with information about the potential for elevated lead levels in drinking water as a result of the disturbance as well as instructions for a flushing procedure to remove particulate lead. The water system must comply with the requirements in this paragraph (6)(a) before the affected service line is returned to service.

(b) If the disturbance of a lead, galvanized requiring replacement, or lead status unknown service line results from the replacement of an inline water meter, a water meter setter, or gooseneck, pigtail, or connector, the water system must provide the person served by the water system at the service connection with information about the potential for elevated lead levels in drinking water as a result of the disturbance, public education materials that meet the content requirements in paragraph (1) of this section, a pitcher filter or point-of-use device certified by an American National Standards Institute accredited certifier to reduce lead, instructions to use the filter, and six (6) months of filter replacement cartridges. The water system must comply with the requirements of this paragraph (6)(b) before the affected service line is returned to service.

(c) A water system that conducts a partial or full lead service line replacement must follow procedures in accordance with the requirements in R.61-58.11.F(4)(a)(i) through (iv) and (5)(a)(i) through (iv), respectively.

(7) Information for Persons Served by Known or Potential Service Lines Containing Lead When a System Exceeds the Lead Trigger Level

(a) Content. All water systems with lead service lines that exceed the lead trigger level of ten micrograms per liter (10 µg/L) must provide persons served by the water system at the service connection with a lead, galvanized requiring replacement, or lead status unknown service line information regarding the water system's lead service line replacement program and opportunities for replacement of the lead service line.

(b) Timing. Waters systems must send notification within thirty (30) days of the end of the tap sampling period in which the trigger level exceedance occurred. Water systems must repeat the notification annually until the results of sampling conducted under R.61-58.11.H are at or below the lead trigger level.

(c) Delivery. The notice must be provided to persons served at the service connection with a lead, galvanized requiring replacement, or lead status unknown service line, by mail or by another method approved by the Department.

(8) Outreach Activities for Failure to Meet the Lead Service Line Replacement Goal

(a) In the first year after a community water system that serves more than 10,000 persons does not meet its annual lead service line replacement goal as required under R.61-58.11.F(6), it must conduct one (1) outreach activity from the following list in the following year until the water system meets its replacement goal or until tap sampling shows that the 90th percentile for lead is at or below the trigger level of ten micrograms per liter (10 µg/L) for two (2) consecutive tap sampling monitoring periods:

(i) Send certified mail to customers with a lead or galvanized requiring replacement service line to inform them about the water system's goal-based lead service line replacement program and opportunities for replacement of the service line.

(ii) Conduct a townhall meeting.

(iii) Participate in a community event to provide information about its lead service line replacement program and distribute public education materials that meet the content requirements in paragraph (1) of this section.

(iv) Contact customers by phone, text message, email, or door hanger.

(v) Use another method approved by the Department to discuss the lead service line replacement program and opportunities for lead service line replacement.

(b) After the first year following a trigger level exceedance, any water system that thereafter continues to fail to meet its lead service line replacement goal must conduct one (1) activity from paragraph (8)(a) of this section and two (2) additional outreach activities per year from the following list:

(i) Conduct social media campaign.

(ii) Conduct outreach via newspaper, television, or radio.

(iii) Contact organizations representing plumbers and contractors by mail to provide information about lead in drinking water including health effects, sources of lead, and the importance of using leadfree plumbing materials.

(iv) Visit targeted customers to discuss the lead service line replacement program and opportunities for replacement.

(c) The water system may cease outreach activities when tap sampling shows that the 90th percentile for lead is at or below the trigger level of ten micrograms per liter (10 µg/L) for two (2) consecutive tap sampling monitoring periods or when all customer-side lead or galvanized requiring replacement service line owners refuse to participate in the lead service line replacement program. For purposes of this paragraph (8)(c), a refusal includes a signed statement by the customer refusing lead service line replacement, or documentation by the water system of a verbal refusal or of no response after two (2) good faith attempts to reach the customer.

(9) Public Education to Local and State Health Agencies

(a) Find-and-fix results. All community water systems must provide information to local and state health agencies about find-and-fix activities conducted in accordance with R.61-58.11.D(10), including the location of the tap sample site that exceeded fifteen micrograms per liter (15 µg/L), the result of the initial tap sample, the result of the follow-up tap sample, the result of water quality parameter monitoring, and any distribution system management actions or corrosion control treatment adjustments made.

(b) Timing and content. Community water systems must annually send copies of the public education materials provided under paragraph (1) of this section, and of paragraph (8)(a) of this section for actions conducted in the previous calendar year no later than July 1 of the following year.

(c) Delivery. Community water systems shall send public education materials and find-and-fix information to local and state health agencies by mail or by another method approved by the Department.

(10) Public Education Requirements for Small Water System Compliance Flexibility POU Devices

(a) Content. All small community water systems and non-transient non-community water systems that elect to implement POU devices under R.61-58.11.O must provide public education materials to inform users how to properly use POU devices to maximize the units' effectiveness in reducing lead levels in drinking water.

(b) Timing. Water systems shall provide the public education materials at the time of POU device delivery.

(c) Delivery. Water systems shall provide the public education materials in person, by mail, or by another method approved by the Department, to persons at locations where the system has delivered POU devices.

H. Monitoring Requirements for Lead and Copper in Tap Water.

(1) Sample Site Location

(a) By the applicable date for commencement of monitoring under paragraph (4)(a) of this section, each water system shall identify a pool of targeted sampling sites based on the service line inventory conducted in accordance with R.61-58.11.F(1), that meet the requirements of this section, and which is sufficiently large enough to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (3) of this section. Sampling sites may not include sites with installed point-of-entry (POE) treatment devices and taps used at sampling sites may not have point-of-use (POU) devices designed to remove inorganic contaminants, except for water systems monitoring under R.61-58.11.O(1)(c)(iv) and water systems using these devices for the primary drinking water tap to meet other primary and secondary drinking water standards and all service connections have POEs or POUs to provide localized treatment for compliance with the other drinking water standards. Lead and copper sampling results for systems monitoring under R.61-58.11.O(1)(c)(iv) may not be used for the purposes of meeting the criteria for reduced monitoring specified in paragraph (4)(d) of this section.

(b) A water system must use the information on lead, copper, and galvanized iron or steel that it is required to be identified under R.61-58.5.V when conducting a materials evaluation and the information on lead service lines that is required to be collected under R.61-58.11.F(1) to identify potential lead service line sampling sites.

(c) The sampling sites selected for a community water system's sampling pool must consist of single-family structures that are served by a lead service line (''Tier 1 sampling sites''). When multiple-family residences comprise at least twenty percent (20%) of the structures served by the water system, the system may include these types of structures in its Tier 1 sampling pool, if served by a lead service line. Sites with lead status unknown service lines must not be used as Tier 1 sampling sites.

(d) A community water system with insufficient Tier 1 sampling sites must complete its sampling pool with ''Tier 2 sampling sites,'' consisting of buildings, including multiple-family residences that are served by a lead service line. Sites with lead status unknown service lines must not be used as Tier 2 sampling sites.

(e) A community water system with insufficient Tier 1 and Tier 2 sampling sites must complete its sampling pool with ''Tier 3 sampling sites,'' consisting of single-family structures that contain galvanized lines identified as being downstream of a lead service line (LSL) currently or in the past, or known to be downstream of a lead gooseneck, pigtail, or connector. Sites with lead status unknown service lines must not be used as Tier 3 sampling sites.

(f) A community water system with insufficient Tier 1, Tier 2, and Tier 3 sampling sites must complete its sampling pool with ''Tier 4 sampling sites,'' consisting of single-family structures that contain copper pipes with lead solder installed before the effective date of the state's applicable lead ban. Sites with lead status unknown service lines must not be used as Tier 4 sampling sites.

(g) A community water system with insufficient Tier 1, Tier 2, Tier 3, and Tier 4 sampling sites must complete its sampling pool with ''Tier 5 sampling sites,'' consisting of single-family structures or buildings, including multiple family residences that are representative of sites throughout the distribution system. For the purpose of this paragraph (1)(g), 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. Water systems may use non-residential buildings that are representative of sites throughout the distribution system if and only if there are an insufficient number of single-family or multiple family residential Tier 5 sites available.

(h) The sampling sites selected for a non-transient, non-community water system must consist of sites that are served by a lead service line (''Tier 1 sampling sites''). Sites with lead status unknown service lines must not be used as Tier 1 sampling sites.

(i) A non-transient, non-community water system with insufficient Tier 1 sites complete its sampling pool with ''Tier 3 sampling sites,'' consisting of sampling sites that contain galvanized lines identified as being downstream of an LSL currently or in the past, or known to be downstream of a lead gooseneck, pigtail, or connector. Sites with lead status unknown service lines must not be used as Tier 3 sampling sites.

(j) A non-transient, non-community water system with insufficient Tier 1 and Tier 3 sampling sites must complete its sampling pool with ''Tier 5 sampling sites,'' consisting of sampling sites that are representative of sites throughout the distribution system. For the purpose of this paragraph (1)(j), 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.

(k) A water system whose distribution system contains lead service lines must collect all samples for monitoring under this section from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by lead service lines must still collect samples from every site served by a lead service line, and collect the remaining samples in accordance with tiering requirements under paragraphs (1)(e) through (g) or paragraphs (1)(i) through (j) of this section.

(2) Sample Collection Methods

(a) All tap samples for lead and copper collected in accordance with this section, with the exception of fifth liter samples collected under paragraph (2)(c) of this section, and samples collected under paragraphs (2)(e) and (8) of this section, must be first-draw samples. The first-draw sample shall be analyzed for lead and copper in tap sampling periods where both contaminants are required to be monitored. In tap sampling periods where only lead is required to be monitored, the first-draw sample may be analyzed for lead only.

(b) Each first-draw tap sample for lead and copper shall be one liter (1 L) in volume and have stood motionless in the plumbing system of each sampling site for at least six (6) hours. Bottles used to collect first-draw samples must be wide-mouth one-liter sample bottles. First-draw samples from residential housing must be collected from the cold water kitchen or bathroom sink tap. First-draw samples from a nonresidential building shall be one liter in volume and collected at a tap from which water is typically drawn for consumption. Department-approved non-first-draw samples collected in lieu of first-draw samples pursuant to paragraph (2)(e) of this section must be one liter (1 L) in volume and must 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 (2)(b). Sampling instructions provided to residents must not include instructions for aerator removal and cleaning or flushing of taps prior to the start of the minimum six (6)-hour stagnation period. To avoid problems of residents handling nitric acid, acidification of first-draw samples may be done up to fourteen (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.

(c)(i) All tap samples for copper collected at sites with a lead service line shall be the first-draw sample collected using the procedure listed in this paragraph (2)(c). Tap samples for copper are required to be collected and analyzed only in monitoring periods for which copper monitoring is required.

(ii) Systems must collect tap water in five (5) consecutively numbered one-liter (1 L) sample bottles after the water has stood motionless in the plumbing of each sampling site for at least six (6) hours without flushing the tap prior to sample collection. Systems must analyze first-draw samples for copper, when applicable, and fifth liter samples for lead. Bottles used to collect these samples must be wide-mouth one-liter (1 L) sample bottles. Systems must collect first-draw samples in the first sample bottle with each subsequently numbered bottle being filled until the final bottle is filled with the water running constantly during sample collection. Fifth liter sample is the final sample collected in this sequence. System must collect first-draw and fifth liter samples from residential housing from the cold water kitchen or bathroom sink tap. First-draw and fifth liter samples from a nonresidential building must be one liter (1 L) in volume and collected at an interior cold water tap from which water is typically drawn for consumption. First-draw and fifth liter samples may be collected by the system or the system may allow residents to collect first-draw samples and fifth liter samples after instructing the residents on the sampling procedures specified in this paragraph (2)(c)(ii). Sampling instructions provided to customers must not direct the customer to remove the aerator or clean or flush the taps prior to the start of the minimum six (6)-hour stagnation period. To avoid problems of residents handling nitric acid, the system may acidify first-draw samples up to fourteen (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.

(d) A water system must collect each first-draw tap sample from the same sampling site from which it collected the previous sample. A water system must collect each fifth liter sample from the same sampling site from which it collected the previous sample. If, for reasons beyond the control of the water system, 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.

(e) A non-transient, non-community water system, or a community water system that meets the criteria of R.61-58.11.G(2)(g), that does not have enough taps that can supply first-draw samples or fifth liter samples meeting the six (6)-hour minimum stagnation time, as defined in R.61-58(B), may apply to the Department in writing to substitute non-first-draw samples, first-draw, or fifth liter samples that do not meet the six (6)-hour minimum stagnation time. Such systems must collect as many first-draw or fifth liter samples from interior taps typically used for consumption as possible and must identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The Department has the discretion to waive the requirement for prior Department approval of sites not meeting the six (6)-hour stagnation time either through State regulation or written notification to the system.

(3) Number of Samples - Water systems shall collect at least one (1) sample during each monitoring period specified in paragraph (4) 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 (4)(d) of this section shall collect at least one (1) 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 (4)(d) 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 (1) of this section to reach the required number of sample sites listed in paragraph (3) 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 Department may allow these public water systems to collect a number of samples less than the number of sites specified in paragraph (3) of this section, provided that one hundred (100) percent of all taps that can be used for human consumption are sampled. The Department must approve this reduction of the minimum number of samples in writing based on a request from the system or onsite verification by the Department. The Department may specify sampling locations when a system is conducting reduced monitoring. The table is as follows:

System Size (# People Served)	# of Sites (Standard Monitoring)	# of Sites (Reduced Monitoring)
>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

(4) Timing of Monitoring

(a) Standard monitoring. Standard monitoring is a six (6)-month tap sampling monitoring period that begins on January 1 or July 1 of the year in which the water system is monitoring at the standard number of sites in accordance to paragraph (3) of this section.

(i) All water systems with lead service lines, including those deemed optimized under R.61-58.11.C(2)(c), and systems that did not conduct monitoring that meets all requirements of this section (e.g., sites selected in accordance with paragraph (1) of this section, samples collected in accordance with paragraph (2) of this section, etc.) between January 15, 2021, and January 16, 2024, must begin the first standard monitoring period on January 1 or July 1 in the year following the January 16, 2024, whichever is sooner. Upon completion of this monitoring, systems must monitor in accordance with paragraph (4)(a)(ii) of this section.

(ii) Systems that conducted monitoring that meet all requirements of this section (e.g., sites selected in accordance with paragraph (1) of this section, samples collected in accordance with paragraph (2) of this section, etc.) between January 15, 2021, and January 16, 2024, and systems that have completed monitoring under paragraph (4)(a)(i) of this section, must continue monitoring as follows:

(A) Systems that do not meet the criteria under paragraph (4)(d) of the section must conduct standard monitoring.

(B) Systems that meet the criteria under paragraph (4)(d) of this section must continue to monitor in accordance with the criteria in paragraph (4)(d).

(C) Any system monitoring at a reduced frequency in accordance with paragraph (4)(d) of this section that exceeds an action level must resume standard monitoring beginning January 1 of the calendar year following the tap sampling monitoring period in which the system exceeded the action level. Any such system must also monitor in accordance with R.61-58.11.I(2), (3), or (4) as applicable.

(D) Any system monitoring at a reduced frequency that exceeds the lead trigger level but meets the copper action level must not monitor any less frequently than annually and must collect samples from the standard number of sites as established in paragraph (3) of this section. This monitoring must begin the calendar year following the tap sampling monitoring period in which the system exceeded the action level. Any such system must also monitor in accordance with R.61-58.11.I(2), (3), or (4) as applicable.

(E) Any system that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the Department under R.61-58.11.D(6) for more than nine (9) days in any monitoring period specified in R.61-58.11.I must conduct standard tap water monitoring and must resume sampling for water quality parameters in accordance with R.61-58.11.I(4). This standard monitoring must begin no later than the six (6)-month period beginning January 1 of the calendar year following the water quality parameter excursion.

(F) Any water system that becomes a large water system without corrosion control treatment or any large water system without corrosion control treatment whose lead 90^{th} percentile exceeds the lead practical quantitation level must conduct standard monitoring for at least two (2) consecutive six (6)-month tap sampling monitoring periods and then must continue monitoring in accordance with this paragraph (4)(a)(ii)(F).

(b) Monitoring After Installation of Initial or Re-Optimized Corrosion Control Treatment and Addition of New Source or Change in Treatment

(i) Any water system that installs or re-optimizes corrosion control treatment, as a result of exceeding the lead or copper action level, must monitor for lead and copper every six (6) months and comply with previously designated water quality parameter values, where applicable, until the Department specifies new water quality parameter values for optimal corrosion control.

(ii) Any water system that reoptimizes corrosion control treatment as a result of exceeding the lead trigger level but has not exceeded the lead or copper action level must monitor annually for lead at the standard number of sites listed in paragraph (3) of this section. Samples shall be analyzed for copper on a triennial basis. Small and medium-size systems that do not exceed the lead trigger level in three (3) annual monitoring periods may reduce lead monitoring in accordance with paragraph (4)(d) of this section.

(iii) Any water system that installs source water treatment pursuant to R.61-58.11.E(1)(c) must monitor every six (6) months until the system at or below lead and copper action levels for two (2) consecutive six (6)-month monitoring periods. Systems that do not exceed the lead or copper action level for two (2) consecutive six (6)-month monitoring periods may reduce monitoring in accordance with paragraph (4)(d) of this section.

(iv) If a water system has notified the Department in writing in accordance with R.61-58.11.L(1)(c) of an upcoming addition of a new source or long-term change in treatment, the water system shall monitor every six (6) months at the standard number of sites listed under paragraph (3) of this section until the system is at or below the lead and copper action levels for two (2) consecutive six (6)-month monitoring periods, unless the Department determines that the addition of the new source or long-term change in treatment is not significant and, therefore, does not warrant more frequent monitoring. Systems that do not exceed the lead and copper action levels, and/or the lead trigger level for two (2) consecutive six (6)-month monitoring periods may reduce monitoring in accordance with paragraph (4)(d) of this section.

(c) Monitoring After the Department Specifies Water Quality Parameter Values for Optimal Corrosion Control Treatment

(i) After the Department specifies the values for water quality control parameters under R.61-58.11.D(6), the system must conduct standard six (6)-month monitoring for two (2) consecutive six (6)-month tap sampling monitoring periods. Systems may then reduce monitoring in accordance with paragraph (4)(d) of this section as applicable, following a Department determination that reduced monitoring is approved.

(ii) Systems required to complete the re-optimization steps in R.61-58.11.C(4) due to the exceedance of the lead trigger level that do not exceed the lead and copper action levels must monitor for two (2) consecutive six (6)-month tap sampling monitoring periods. Systems may then reduce monitoring in accordance with paragraph (4)(d) of this section as applicable following a Department determination that reduced monitoring is approved.

(d) Reduced Monitoring Based on 90th Percentile Levels

Reduced monitoring refers to an annual or triennial tap sampling monitoring period. The reduced monitoring frequency is based on the 90th percentile value for the water system.

(i) A water system that meets the criteria for reduced monitoring under paragraph (4)(d) of this section must collect these samples from sampling sites identified in paragraph (1) of this section. Systems monitoring annually or less frequently must conduct the lead and copper tap sampling during the months of June, July, August, or September unless the Department has approved a different sampling period in accordance with paragraph (4)(d)(i)(A) of this section.

(A) The Department, at its discretion, may approve a different tap sampling period for conducting the lead and copper tap sampling for systems collecting samples at a reduced frequency. Such a period must be no longer than four (4) consecutive months, within one (1) calendar year, 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 Department must designate a period that represents normal operation for the system. This monitoring must begin during the period approved or designated by the Department in the calendar year immediately following the end of the second six (6)-month monitoring period for systems initiating annual monitoring and during the three (3)-year period following the end of the third consecutive 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 Department approval to alter their tap sampling monitoring period under paragraph (4)(d)(i)(A) of this section must collect their next round of samples during a time period that ends no later than twenty-one (21) months after the previous round of sampling. Systems monitoring triennially that have been collecting samples during the month of June through September and receive Department approval to alter their sampling collection period as per paragraph (4)(d)(i)(A) of this section must collect their next round of samples during a time period that ends no later than forty-five (45) months after the previous tap sampling period. Subsequent monitoring must be conducted annually or triennially, as required by this section.

(C) Small systems with waivers granted pursuant to paragraph (7) of this section that have been collecting samples during the months of June through September and receive Department approval to alter their tap sampling period as per paragraph (4)(d)(i)(A) of this section must collect their next round of samples before the end of the nine (9)-year period.

(ii) Any water system that meets the lead trigger level and the copper action level, during each of two (2) consecutive six (6)-month tap sampling monitoring periods may reduce the monitoring frequency to annual monitoring and must sample at the standard number of sampling sites for lead and the reduced number of sites for copper in accordance with paragraph (3) of this section. Systems operating under optimal corrosion control treatment (OCCT) must also have maintained the range of optimal water quality parameters (OWQPs) set by the Department in accordance with R.61-58.11.D(6) for the same period and receive a written determination from the Department approving annual monitoring based on the Department's review of monitoring, treatment, and other relevant information submitted by the system as required by R.61-58.11.L. This sampling must begin no later than the calendar year immediately following the last calendar year in which the system sampled.

(iii) Any water system that exceeds the lead trigger level but not the lead and copper action levels during two (2) consecutive six (6)-month tap sampling monitoring periods must monitor no less frequently than annually at the standard number of sampling sites for lead and copper specified in paragraph (3) of this section. Systems operating OCCT must also have maintained the range of OWQPs set by the Department in accordance with R.61-58.11.D(6) for the same period of six (6)-month monitoring and receive a written determination from the Department approving annual monitoring based on the Department's review of monitoring, treatment, and other relevant information submitted by the system as required by R.61-58.11.L. This sampling must begin no later than the calendar year immediately following the last calendar year in which the system sampled.

(iv) Any water system that exceeds the lead trigger level but not the lead and copper action levels during three (3) consecutive years of monitoring may reduce the tap sampling monitoring period for copper to once every three (3) years; however, the system may not reduce the tap sampling monitoring period for lead. Systems operating OCCT must also maintain the range of OWQPs set by the Department in accordance with R.61-58.11.D(6) and receive a written determination from the Department approving triennial monitoring based on the Department's review of monitoring, treatment, and other relevant information submitted by the system as required by R.61-58.11.L. This sampling must begin no later than the third calendar year immediately following the last calendar year in which the system sampled.

(v) Any small or medium-size system that does not exceed the lead trigger level and the copper action level during three (3) consecutive years of monitoring (standard monitoring completed during both six (6)-month periods of a calendar year shall be considered one (1) year of monitoring) may sample at the reduced number of sites for lead and copper in accordance with paragraph (3) of this section and reduce the monitoring frequency to triennial monitoring. Systems operating OCCT must also have maintained the range of OWQPs set by the Department in accordance with R.61-58.11.D(6) for the same three (3)-year period and receive a written determination from the Department approving triennial monitoring based on the Department's review of monitoring, treatment, and other relevant information submitted by the system as required by R.61-58.11.L. This sampling must begin no later than three (3) calendar years after the last calendar year in which the system sampled.

(vi) Any water system that demonstrates for two (2) consecutive six (6)- month monitoring periods that its 90^{th} percentile lead level, calculated under R.61-58.11.B(3)(d), is less than or equal to 0.005 mg/L and the 90^{th} percentile copper level, calculated under R.61-58.11.B(3)(d), is less than or equal to 0.65 mg/L may sample at the reduced number of sites for lead and copper in accordance with paragraph (3) of this section and reduce the frequency of monitoring to triennial monitoring. For water systems with corrosion control treatment, the system must maintain the range of values for the water quality parameters reflecting OCCT specified by the Department under R.61-58.11.D(6) to qualify for reduced monitoring pursuant to this paragraph (4)(d)(vi).

(5) Additional Monitoring by Systems - The results of any monitoring conducted in addition to the minimum requirements of this section (such as customer-requested sampling) shall be considered by the water system and the Department in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this section. Water systems with lead service lines that are unable to collect the minimum number of samples from Tier 1 or Tier 2 sites shall calculate the 90th percentile using data from all the lead service line sites and the highest lead and copper values from lower tier sites to meet the specified minimum number of samples. Systems must submit data from additional Tier 3, Tier 4, or Tier 5 sites to the Department but may not use these results in the 90th percentile calculation. Water systems must include customer-requested samples from known lead service line sites in the 90th percentile calculation if the samples meet the requirements of this section.

(6) Invalidation of Lead and Copper Tap Samples used in the Calculation of the 90th Percentile. A sample invalidated under this paragraph (6) does not count toward determining lead or copper 90th percentile levels under R.61-58.11.B(1)(c), or toward meeting the minimum monitoring requirements of paragraph (3) of this section.

(a) The Department 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 Department 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.

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

(c) To invalidate a sample under paragraph (6)(a) of this section, the decision and the rationale for the decision must be documented in writing. The Department 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.

(d) 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 (3) of this section. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the Department 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.

(7) Monitoring Waivers for Systems Serving 3,300 or Fewer Persons.

Any water system serving 3,300 or fewer persons that meets the criteria of this paragraph (7) may apply to the Department to reduce the frequency of monitoring for lead and copper under this section to once every nine (9) years (i.e., a ‘‘full waiver’’) if it meets all of the materials criteria specified in paragraph (7)(a) of this section and all of the monitoring criteria specified in paragraph (7)(b) of this section. If state regulations permit, any water system serving 3,300 or fewer persons that meets the criteria in paragraphs (7)(a) and (b) of this section only for lead, or only for copper, may apply to the Department for a waiver to reduce the frequency of tap water monitoring to once every nine (9) years for that contaminant only (i.e., a ‘‘partial waiver’’).

(a) 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 Department that the system is free of all lead-containing materials, as follows:

(A) It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers; 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 Department that the system contains no copper pipes or copper service lines.

(b) 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 Department and from the number of sites required by paragraph (3) 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.

(c) Department approval of waiver application. The Department 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 Department 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 (4)(a) through (4)(d) of this section, as appropriate, until it receives written notification from the Department that the waiver has been approved.

(d) 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 (4)(d)(iv) of this section at the reduced number of sampling sites identified in paragraph (3) of this section at least once every nine (9) years and provide the materials certification specified in paragraph (7)(a) of this section for both lead and copper to the Department along with the monitoring results. Samples collected every nine (9) 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 (4)(d)(iv) of this section at the reduced number of sampling sites specified in paragraph (3) of this section at least once every nine (9) years and provide the materials certification specified in paragraph (7)(a) 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 (4)(a) through (4)(d) of this section, as appropriate.

(iii) Any water system with a full or partial waiver shall notify the Department in writing in accordance with R.61-58.11.L(1)(c) of any upcoming long-term change in treatment or addition of a new source, as described in that section. The Department 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 Department 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 Department in writing no later than sixty (60) days after becoming aware of such a change.

(e) Continued eligibility. If the system continues to satisfy the requirements of paragraph (7)(d) of this section, the waiver will be renewed automatically, unless any of the conditions listed in paragraph (7)(e)(i) through (7)(e)(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 (7)(a) and (7)(b) of this section.

(i) A system with a full waiver or a lead waiver no longer satisfies the materials criteria of paragraph (7)(a)(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 (7)(a)(ii) of this section or has a 90th percentile copper level greater than 0.65 mg/L.

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

(f) Requirements following waiver revocation. A system whose full or partial waiver has been revoked by the Department 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 R.61-58.11.C(5), and any other applicable requirements of this section.

(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 (3) of this section.

(g) Pre-existing waivers. Small system waivers approved by the Department 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 (7)(a) of this section and that its 90th percentile lead levels and 90th percentile copper levels meet the criteria of paragraph (7)(b) of this section, the waiver remains in effect so long as the system continues to meet the waiver eligibility criteria of paragraph (7)(e) of this section. The first round of tap water monitoring conducted pursuant to paragraph (7)(d) 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 (7)(a) of this section but has not met the monitoring criteria of paragraph (7)(b) 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 (7)(b) 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 (7)(e) of this section. The first round of tap water monitoring conducted pursuant to paragraph (7)(d) of this section shall be completed no later than nine (9) years after the round of monitoring conducted pursuant to paragraph (7)(b) of this section.

(8) Follow-up Samples for ‘‘Find-and-fix’’ under R.61-58.11.D(10).

Systems shall collect a follow-up sample at any site that exceeds the action level within thirty (30) days of receiving the sample results. These follow-up samples may use different sample volumes or different sample collection procedures to assess the source of elevated lead. Systems shall submit samples collected under this section to the Department but shall not include such samples in the 90th percentile calculation.

(9) Public Availability of Tap Monitoring Results used in the 90th Percentile Calculation.

All water systems must make available to the public the results of compliance tap water monitoring data, including data used in the 90th percentile calculation under R.61-58.11.B(3)(d), within sixty (60) days of the end of the applicable tap sampling period. Nothing in this section requires water systems to make publicly available the addresses of the sites where the tap samples were collected. Large systems shall make available the monitoring results in a digital format. Small and medium-size systems shall make available the monitoring results in either a written or digital format. Water systems shall retain tap sampling monitoring data in accordance with recordkeeping requirements under R.61-58.11.M.

I. 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, and all small and medium-size water systems with corrosion control treatment that exceed the lead trigger level must monitor water quality parameters in addition to lead and copper in accordance with this section.

(1) General Requirements

(a) 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 R.61-58.11.H(1). Sites selected for tap samples under this section must be included in the site sample plan specified under R.61-58.11.H(1)(a). The site sample plan must be updated prior to changes to the sampling locations. [Note: Systems may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under R.61-58.5.G if they also meet the requirements of this section.]

(ii) Samples collected at the entry point(s) to the distribution system must 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).

(b) Number of Samples

(i) Systems must collect two (2) tap samples for applicable water quality parameters during each monitoring period specified under paragraphs (2) through (5) of this section from the minimum number of sites listed in table 1 to this paragraph (1)(b)(i). Systems that add sites as a result of the ''find-and-fix'' requirements in R.61-58.11.D(10) must collect tap samples for applicable water quality parameters during each monitoring period under paragraphs (2) through (5) of this section and must sample from that adjusted minimum number of sites. Systems are not required to add sites if they are monitoring at least twice the minimum number of sites list in table 1 to this paragraph (1)(b)(i).

Table 1 To Paragraph (1)(b)(i)

System Size (# People Served)	**# Of Sites For Water Quality Parameters**
>100,000	25
10,001 to 100,000	10
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
<=100	1

(ii)(A) Except as provided in paragraph (3)(b) of this section, water systems without corrosion control treatment must collect two (2) samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in paragraph (2) of this section. During each monitoring period specified in paragraphs (3) through (5) of this section, water systems must collect one (1) sample for each applicable water quality parameter at each entry point to the distribution system.

(B) During each monitoring period specified in paragraphs (3) through (5) of the section, water systems with corrosion control treatment must continue to collect one (1) sample for each applicable water quality parameter at each entry point to the distribution system no less frequently than once every two (2) weeks.

(2) Initial Sampling for Water Systems-

Any large water system without corrosion control treatment must monitor for water quality parameters as specified in paragraphs (2)(a) and (b) of this section during the first two (2) six (6)-month tap sampling monitoring periods beginning no later than January 1 of the calendar year after the system either becomes a large water system, or fails to maintain their 90th percentile for lead below the practical quantitation limit (PQL) for lead. Any medium or small system that exceeds the lead or copper action level and any system with corrosion control treatment for which the Department has not designated optimal water quality parameters (OWQPs) that exceeds the lead trigger level shall monitor for water quality parameters as specified in paragraphs (2)(a) and (b) of this section for two (2) consecutive six (6)-month periods beginning the month immediately following the end of the tap sampling period in which the exceedance occurred.

(a) At taps:

(i) pH;

(ii) Alkalinity; and

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

(3) Monitoring After Installation of Optimal Corrosion Control or Re-optimized Corrosion Control Treatment.

(a) Any system that installs or modifies corrosion control treatment pursuant to R.61-58.11.C(4)(e) or (5)(e) and is required to monitor pursuant R.61-58.11.C(4)(f) or (5)(f) must monitor the parameters identified in paragraphs (3)(a)(i) and (ii) of this section every six (6) months at the locations and frequencies specified in paragraphs (3)(a)(i) and (ii) of this section until the Department specifies new water quality parameter values for optimal corrosion control pursuant to paragraph (4) of this section. Water systems must collect these samples evenly throughout the six (6)-month monitoring period so as to reflect seasonal variability.

(i) At taps, two (2) samples each for:

(A) pH;

(B) Alkalinity;

(C) Orthophosphate, when an inhibitor containing an orthophosphate compound is used;

(D) Silica, when an inhibitor containing a silicate compound is used.

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

(A) pH;

(B) 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

(C) 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).

(iii) Any groundwater system can limit entry point sampling described in paragraph (3)(a)(ii) of this section to those entry points that are representative of water quality and treatment conditions throughout the system. If water from untreated groundwater sources mixes with water from treated groundwater 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 (3)(a)(iii), the water system must provide to the Department 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.

(b) The Department has the discretion to require small and medium-size systems with treatment for which the Department has not designated OWQPs that exceed the lead trigger level but not the lead and copper action levels to conduct water quality parameter monitoring as described in paragraph (3)(a) of this section or the Department can develop its own water quality control parameter monitoring structure for these systems.

(4) Monitoring After the Department Specifies Water Quality Parameter Values for Optimal Corrosion Control

(a) After the Department specifies the values for applicable water quality parameters reflecting optimal corrosion control treatment under R.61-58.11.D(6), systems must monitor for the specified optimal water quality parameters during six (6)-month periods that begin on either January 1 or July 1. Such monitoring must be spaced evenly throughout the six (6)-month monitoring period so as to reflect seasonal variability and be consistent with the structure specified in paragraphs (3)(a)(i) through (iii) of this section.

(i) All large systems must measure the applicable water quality parameters specified by the Department and determine compliance with the requirements of R.61-58.11.D(7) every six (6) months with the first six (6)-month period to begin on either January 1 or July 1, whichever comes first, after the Department specifies the optimal values under R.61-58.11.D(6).

(ii) Any small or medium-size water system that exceeds an action level must begin monitoring during the six (6)-month period immediately following the tap sampling monitoring period in which the exceedance occurs and continue monitoring until the water system no longer exceeds the lead and copper action levels and meets the optimal water quality control parameters in two (2) consecutive six (6)-month tap sampling monitoring periods under R.61-58.11.H(4)(c). For any such small and medium-size system that is subject to a reduced monitoring frequency pursuant to R.61-58.11.H(4)(d) at the time of the action level exceedance, the start of the applicable six (6)-month monitoring period under this paragraph must coincide with the start of the applicable tap sampling monitoring period under R.61-58.11.H(4)(d).

(iii) Compliance with Department-designated optimal water quality parameter values must be determined as specified under R.61-58.11.D(7).

(b) Any small or medium-size system that exceeds the lead trigger level, but not the lead and copper action levels for which the Department has set optimal water quality control parameters must monitor as specified in paragraph (4)(a) of this section every six (6) months, until the system no longer exceeds the lead trigger level in two (2) consecutive tap sampling monitoring periods.

(c) The Department has the discretion to continue to require systems described in paragraph (4)(b) of this section to monitor optimal water quality control parameters.

(5) Reduced Monitoring

(a) Any large water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Department under R.61-58.11.D(6) and does not exceed the lead trigger level during each of two (2) consecutive six (6)-month monitoring periods under paragraph (4) of this section must continue monitoring at the entry point(s) to the distribution system as specified in paragraph (3)(a)(ii) of this section. Such system may collect two (2) tap samples for applicable water quality parameters from the following reduced number of sites during each six (6) month monitoring period. Water systems must collect these samples evenly throughout the six (6)-month monitoring period so as to reflect seasonal variability.

Reduced # Of Sites System Size (# People Served)	**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

(b)(i) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Department under R.61-58.11.D(6) and does not exceed the lead trigger level or copper action level during three (3) 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 (5)(a) of this section from every six (6) 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 (6)-month monitoring occurs.

(ii) A water system may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in paragraph (5)(a) of this section to every year if it demonstrates during two (2) consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the PQL for lead of 0.005 mg/L, that its tap water copper level at the 90th percentile is less than or equal to 0.65 mg/L in R.61-58.11.B(1)(b), and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Department under R.61-58.11.D(6).

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

(d) Any water system subject to 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 Department under R.61-58.11.D(6), for more than nine (9) days in any six (6) month period specified in R.61-58.11.D(7), must resume distribution system tap water sampling in accordance with the number and frequency requirements in paragraph (4) 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 (5)(a) of this section after it has completed two (2) subsequent consecutive six (6) month rounds of monitoring that meet the criteria of paragraph (5)(a) of this section and/or may resume annual 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 (5)(b)(i) or (5)(b)(ii) of this section.

(6) Additional Monitoring by Systems

The results of any monitoring conducted in addition to the minimum requirements of this section must be considered by the water system and the Department in making any determinations (i.e., determining concentrations of water quality parameters) under this section or R.61-58.11.D.

(7) Additional Sites Added from Find-and-fix.

Any water system that conducts water quality parameter monitoring at additional sites through the ‘‘find-and-fix’’ provisions pursuant to R.61-58.11.D(10) must add those sites to the minimum number of sites specified under paragraphs (1) through (5) of this section unless the system is monitoring at least twice the minimum number of sites.

J. Monitoring Requirements for Lead and Copper in Source Water.

(1) Sample Location, Collection Methods, and Number of Samples

(a) A water system that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with R.61-58.11.H above, shall collect lead and copper source water samples in accordance with the requirements regarding sample location, number of samples, and collection methods.

(i) Groundwater systems shall take a minimum of one (1) 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 one (1) 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: 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 Department 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 (5) 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 fourteen (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.

(b) Where the results of sampling indicate an exceedance of maximum permissible source water levels established under R.61-58.11.E(2)(d) above, the Department 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 Department- 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 Department- 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.

(2) Monitoring Frequency After System Exceeds Tap Water Action Level

Any system which exceeds the lead or copper action level at the tap for the first time or for the first time after an addition of a new source or installation of source water treatment required under R.61-58.11.E(2)(b) shall collect one (1) source water sample from each entry point to the distribution system no later than six (6) months after the end of the tap sampling period during which the lead or copper action level was exceeded. For tap sampling periods that are annual or less frequent, the end of the tap sampling period is September 30 of the calendar year in which the sampling occurs, or if the Department has established an alternate monitoring period, the last day of that period. If the Department determines that source water treatment is not required under R.61-58.11.E(2)(b), the Department may waive source water monitoring, for any subsequent lead or copper action level exceedance at the tap, in accordance with the requirements in paragraphs (2)(a)(i) through (iii) of this section.

(a) The Department may waive source water monitoring for lead or copper action level exceedance at the tap under the following conditions:

(i) The water system has already conducted source water monitoring following a previous action level exceedance;

(ii) The Department has determined that source water treatment is not required; and

(iii) The system has not added any new water sources.

(b) [Reserved]

(3) Monitoring Frequency After Installation of Source Water Treatment and Addition of New Source

(a) Any system which installs source water treatment pursuant to R.61-58.11.E(1)(c) shall collect one (1) source water sample from each entry point to the distribution system during two (2) consecutive six (6)-month monitoring periods by the deadline specified in R.61-58.11.E(1)(d).

(b) Any system which adds a new source shall collect one (1) source water sample from each entry point to the distribution system until the system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Department in R.61-58.11.E(2)(d) or the Department determines that source water treatment is not needed.

(4) Monitoring Frequency after Department Specifies Maximum Permissible Source Water Levels

(a) A system shall monitor at the frequency specified in paragraphs (4)(a) and (b) of this section, in cases where the Department specifies maximum permissible source water levels under R.61-58.11.E(2)(d).

(i) A water system using only groundwater shall collect samples once during the three (3) year compliance period (as that term is defined in R.61-58.B, Definitions) in effect when the applicable Department determination under paragraph (4)(a) 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) shall collect samples once during each calendar year, the first annual monitoring period to begin during the year in which the applicable Department determination is made under paragraph (4)(a) of this section.

(b) 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 (4)(a)(i) or (ii) of this section.

(5) Reduced Monitoring Frequency

(a) A water system using only ground water may reduce the monitoring frequency for lead and copper in source water to once during each nine (9)-year compliance cycle (as that term is defined in R.61-58.B, Definitions) provided that the samples are collected no later than every ninth calendar year and if the systems meets 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 Department in R.61-58.11.E(2)(d), during at least three (3) consecutive monitoring periods under paragraph (4)(a) of this section; or

(ii) The Department 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 (4)(a) 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.

(b) A water system using surface water (or a combination of surface and ground waters) may reduce the monitoring frequency in paragraph (4)(a) of this section to once during each nine (9)-year compliance cycle (as that term is defined in R.61-58.B, Definitions) provided that the samples are collected no later than every ninth calendar year and if the system meets 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 Department in Section E(2)(d) above, for at least three (3) consecutive years; or

(ii) The Department has determined that source water treatment is not needed and the system demonstrates that, during at least three (3) 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.

(c) 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 Department in R.61-58.11.E(1)(e).

K. Analytical Methods.

(1) Analyses for lead, copper, pH, alkalinity, orthophosphate, and silica, and temperature shall be conducted using EPA approved methods and other requirements listed in 40 CFR 141.23(k)(1).

(a) Analyses under R.61-58.11 shall only be conducted by laboratories that are certified by the Department.

(b) The Department has 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 section.

(c) All lead and 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 specified for lead and copper in paragraph (1)(d) below. All levels below the lead and copper MDL must be reported as zero.

(d) The Practical Quantitation Level, or PQL for lead is 0.005 mg/L. The Practical Quantitation Level, or PQL for copper is 0.050 mg/L.

L. Reporting Requirements.

All water systems shall report all of the following information to the Department in accordance with this section.

(1) Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring.

(a) Notwithstanding the requirements of R.61-58.6.B(1), except as provided in paragraph (1)(a)(viii) of this section a water system must report the information specified in paragraphs (1)(a)(i) through (ix) of this section for all tap water samples specified in R.61-58.11.H and for all water quality parameter samples specified in R.61-58.11.I within the first ten (10) days following the end of each applicable tap sampling monitoring period specified in R.61-58.11.H and R.61-58.11.I (i.e., every six (6) months, annually, every three (3) years, or every nine (9) years). For tap sampling periods with a duration less than six (6) months, the end of the tap sampling monitoring period is the last date samples can be collected during that tap sampling period as specified in R.61-58.11.H and R.61-58.11.I.

(i) The results of all tap samples for lead and copper including the location of each site and the site selection criteria under R.61-58.11.H(1)(c) through (j), used as the basis for which the site was selected for the water system's sampling pool, accounting for R.61-58.11.H(1)(k);

(ii) Documentation for each tap water lead or copper sample for which the water system requests invalidation pursuant to R.61-58.11.H(5)(b) above;

(iii) Water systems with lead service lines, galvanized service lines requiring replacement, or lead status unknown service lines in the lead service line inventory conducted under R.61-58.11.F(1) must re-evaluate the tap sampling locations used in their sampling pool prior to the compliance date specified in R.61-58.11.B(1) and thereafter prior to the next round of tap sampling conducted by the system, or annually, whichever is more frequent.

(A) By the start of the first applicable tap sampling monitoring period in R.61-58.11.H(4), the water system must submit a site sample plan to the Department in accordance with R.61-58.11.H, including a list of tap sample site locations identified from the inventory in R.61-58.11.F(1), and a list of tap sampling water quality parameter (WQP) sites selected under R.61-58.11.I(1)(a). The site sample plan must be updated and submitted to the Department prior to any changes to sample site locations. The Department may require modifications to the site sample plan as necessary.

(B) For water systems with lead service lines with insufficient lead service line sites to meet the minimum number required in R.61-58.11.H, documentation in support of the conclusion that there are an insufficient number of lead service line sites meeting the criteria under R.61-58.11.H(1)(c) or (d) for community water systems or R.61-58.11.H(1)(h) for non-transient, non-community water systems, as applicable;

(iv) The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each tap sampling period (calculated in accordance with R.61-58.11.B(3)(d), unless the State calculates the water system's 90th percentile lead and copper levels under paragraph (8) of this section;

(v) With the exception of initial tap sampling conducted pursuant to R.61-58.11.H(4)(a)(i), the water system must identify any site which was not sampled during previous tap sampling periods, and include an explanation of why sampling sites have changed;

(vi) The results of all water quality parameter tap samples that are required to be collected under R.61-58.11.I(2) through (7);

(vii) The results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under R.61-58.11.I(2) through(5);

(viii) A water system shall report the results of all water quality parameter samples collected under Section I(3) - (6) above, during each six (6)-month monitoring period specified in Section I(4) above, within the first ten (10) days following the end of the monitoring period unless the Department has specified a more frequent reporting requirement~~.~~; and

(ix) By the start of the first applicable tap sampling period in R.61-58.11.H(4), the water system must submit to the Department a copy of the tap sampling protocol that is provided to individuals who are sampling. The Department shall verify that wide-mouth collection bottles are used and recommendations for pre-stagnation flushing and aerator cleaning or removal prior to sample collection are not included pursuant to R.61-58.11.H(2). The tap sampling protocol shall contain instructions for correctly collecting a first-draw sample for sites without lead service lines and a first-draw and a fifth liter sample for sites with lead service lines, where applicable. If the water system seeks to modify its tap sampling protocol specified in this paragraph (1)(a)(ix), it must submit

the updated version of the protocol to the Department for review and approval no later than sixty (60) days prior to use.

(b) For a non-transient non-community water system, or a community water system meeting the criteria of R.61-58.11.H(2)(e), that does not have enough taps that can provide first-draw or fifth liter samples, the system must either:

(i) Provide written documentation to the Department identifying standing times and locations for enough non-first-draw and fifth liter samples to make up its sampling pool under R.61-58.11.H(2)(e), by the start of the first applicable monitoring period under R.61-58.11.H(4) unless the Department has waived prior Department approval of non-first-draw and fifth liter sample sites selected by the system pursuant to R.61-58.11.H(2)(e); or

(ii) If the Department 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 R.61-58.11.H(2)(e) above, and include this information with the lead and copper tap sample results required to be submitted pursuant to paragraph (1)(a)(i) of this section.

(c) At a time specified by the Department, or if no specific time is designated by the Department, then as early as possible prior to the addition of a new source or any long-term change in water treatment, a water system must submit written documentation to the Department describing the change or addition. The Department must review and approve the addition of a new source or long-term change in treatment before it is implemented by the water system. The Department may require the system to take actions before or after the addition of a new source or long-term treatment change to ensure the system will operate and maintain optimal corrosion control treatment such as additional water quality parameter monitoring, additional lead or copper tap sampling, and re-evaluation of corrosion control treatment. Examples of long-term treatment changes include, but are not limited to, 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 also 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 where a new source has not been added.

(d) Any small system applying for a monitoring waiver under R.61-58.11.H(7) above, or subject to a waiver granted pursuant to R.61-58.11.H(7)(c) above, shall provide the following information to the Department in writing by the specified deadline:

(i) By the start of the first applicable tap sampling monitoring period in R.61-58.11.H(4), any small water system applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of R.61-58.11.H(7)(a) and (b).

(ii) No later than nine years after the monitoring previously conducted pursuant to R.61-58.11.H(7)(b) or R.61-58.11.H(7)(d)(i) above, each small system desiring to maintain its monitoring waiver shall provide the information required by R.61-58.11.H(7)(d)(i) and (ii) above.

(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 Department, 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.

(e) Each ground water system that limits water quality parameter monitoring to a subset of entry points under R.61-58.11.I(3)(c) above, shall provide, by the commencement of such monitoring, written correspondence to the Department 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.

(2) Source Water Monitoring Reporting Requirements

(a) A water system shall report the sampling results for all source water samples collected in accordance with R.61-58.11.J above 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 R.61-58.11.J above.

(b) With the exception of the first round of source water sampling conducted pursuant to R.61-58.11.J(2) above, 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.

(3) Corrosion Control Treatment Reporting Requirements - By the applicable dates under R.61-58.11.C above, systems shall report the following information:

(a) For water systems demonstrating that they have already optimized corrosion control, information required in R.61-58.11.C(2)(a) through (c).

(b) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under R.61-58.11.D(1) above.

(c) For systems required to evaluate the effectiveness of corrosion control treatments under R.61-58.11.D(3) above, the information required by that paragraph.

(d) For systems required to install optimal corrosion control designated by the Department under R.61-58.11.D(4) above, a letter certifying that the system has completed installing that treatment.

(4) Source Water Treatment Reporting Requirements - By the applicable dates in R.61-58.11.E above, systems shall provide the following information to the Department:

(a) If required under R.61-58.11.E(2)(a) above, their recommendation regarding source water treatment;

(b) For systems required to install source water treatment under R.61-58.11.E(2)(b) above, a letter certifying that the system has completed installing the treatment designated by the Department within twenty four (24) months after the Department designated the treatment.

(5) Lead Service Line Inventory and Replacement Reporting Requirements
Water systems must report the following information to the Department to demonstrate compliance with the requirements of R.61-58.11.F and R.61-58.11.G:

(a) No later than January 16, 2024, the water system must submit to the Department an inventory of service lines as required in R.61-58.11.F(1).

(b) No later than January 16, 2024, any water system that has inventoried a lead service line, galvanized requiring replacement, or lead status unknown service line in its distribution system must submit to the Department, as specified in Section R.61-58.11.F(2), a lead service line replacement plan.

(c) The water system must provide the Department with updated versions of its inventory as required in R.61-58.11.F(1) in accordance with its tap sampling monitoring period schedule as required in R.61-58.11.H(4),

but no more frequently than annually. The updated inventory must be submitted within thirty (30) days of the end of each tap sampling monitoring period.

(i) When the water system has demonstrated that it has no lead, galvanized requiring replacement, or lead status unknown service lines in its inventory, it is no longer required to submit inventory updates to the Department, except as required in paragraph (5)(c)(ii) of this section.

(ii) In the case that a water system meeting the requirements of paragraph (5)(c)(i) of this section, subsequently discovers any service lines requiring replacement in its distribution system, it must notify the Department within thirty (30) days of identifying the service line(s) and prepare an updated inventory in accordance with R.61-58.11.F(1) on a schedule established by the Department.

(d) Within thirty (30) days of the end of each tap sampling monitoring period, the water system must certify that it conducted replacement of any encountered lead goosenecks, pigtails, and connectors in accordance with R.61-58.11.F(3).

(e) Within 30 days of the end of each tap sampling monitoring period, the water system must certify to the Department that any partial and full lead service line replacements were conducted in accordance with R.61-58.11.F(4) and (5), respectively.

(f) If the water system fails to meet the forty-five (45)-day deadline to complete a customer-initiated lead service line replacement pursuant to R.61-58.11.F(4)(d), it must notify the Department within thirty (30) days of the replacement deadline to request an extension of the deadline up to one hundred eighty (180) days of the customer-initiated lead service line replacement.

(i) The water system must certify annually that it has completed all customer-initiated lead service line replacements in accordance with R.61-58.11.F(4)(d).

(ii) [Reserved]

(g) No later than thirty (30) days after the end of the water system's annual lead service line replacement requirements under R.61-58.11.F(6) and (7), the water system must submit the following information to the Department, and continue to submit it each year it conducts lead service line replacement under R.61-58.11.F(6) and (7):

(i) The number of lead service lines in the initial inventory;

(ii) The number of galvanized requiring replacement service lines in the initial inventory;

(iii) The number of lead status unknown service lines in the inventory at the onset of the water system's annual lead service line replacement program;

(iv) The number of full lead service lines that have been replaced and the address associated with each replaced service line;

(v) The number of galvanized requiring replacement service lines that have been replaced and the address associated with each replaced service line;

(vi) The number of lead status unknown service lines remaining in the inventory;

(vii) The total number of lead status unknown service lines determined to be non-lead; and

(viii) The total number of service lines initially inventoried as ‘‘non-lead’’ later discovered to be a lead service line or a galvanized requiring replacement service line.

(h) No later than thirty (30) days after the end of each tap sampling period, any water system that has received customer refusals about lead service line replacements or customer nonresponses after a minimum of two (2) good faith efforts by the water system to contact customers regarding full lead service line replacements in accordance with R.61-58.11.F(7)(g), must certify to the Department the number of customer refusals or non-responses it received from customers served by a lead service line or galvanized requiring replacement service line, and maintain such documentation.

(i) No later than twelve (12) months after the end of a tap sampling period in which a water system exceeds the lead action level in sampling conducted pursuant to R.61-58.11.H, the system must provide to the Department its schedule for annually replacing an average annual rate, calculated on a two (2)-year rolling basis, of at least three percent (3%), or otherwise specified in R.61-58.11.F(7)(i), of the number of known lead service lines and galvanized lines requiring replacement when the lead trigger or action level was first exceeded and lead status unknown service lines at the beginning of each year that required replacement occurs in its distribution system.

(j) No later than twelve (12) months after the end of a sampling period in which a system exceeds the lead trigger level in sampling conducted pursuant to R.61-58.11.H, and every twelve (12) months thereafter, the system shall certify to the Department in writing that the system has:

(i) Conducted consumer notification as specified in R.61-58.11.F(6)(d) and R.61-58.11.G(7); and

(ii) Delivered public education materials to the affected consumers as specified in R.61-58.11.G(1).

(iii) A water system that does not meet its annual service line replacement goal as required under R.61-58.11.F(6) must certify to the Department in writing that the water system has conducted public outreach as specified in R.61-58.11.G(8). The water system must also submit the outreach materials used to the Department.

(k) The annual submission to the Department under paragraph (5)(j) of this section must contain the following information:

(i) The certification that results of samples collected between three (3) months and six (6) months after the date of a full or partial lead service line replacement were provided to the resident in accordance with the timeframes in R.61-58.11.G(4)(b). Mailed notices postmarked within three (3) business days of receiving the results shall be considered ‘‘on time.’’

(ii) [Reserved]

(l) Any system which collects samples following a partial lead service line replacement required by R.61-58.11.F must report the results to the Department within the first ten (10) days of the month following the month in which the system receives the laboratory results, or as specified by the Department. The Department, at its discretion, may eliminate this requirement to report these monitoring results, but water systems shall still retain such records. Systems must also report any additional information as specified by the Department, and in a time and manner prescribed by the Department, to verify that all partial lead service line replacement activities have taken place.

(m) Any system with lead service lines in its inventory must certify on an annual basis that the system has complied with the consumer notification of lead service line materials as specified in R.61-58.11.G(5).

(6) Public Education Program Reporting Requirements:

(a) Any water system that is subject to the public education requirements in R.61-58.11.G shall, within ten (10) days after the end of each period in which the system is required to perform public education in accordance with R.61-58.11.G(2) above, send written documentation to the Department that contains:

(i) The public education materials that were delivered, and a demonstration that the water system has delivered the public education materials that meet the content requirements in R.61-58.11.G(1) and the delivery requirements in R.61-58.11.G(2); 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.

(b) Unless required by the Department, a system that previously has submitted the information required by paragraph (6)(a)(ii) of this section need not resubmit the information required by paragraph (6)(a)(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.

(c) No later than three (3) months following the end of the tap sampling period, each water system must mail a sample copy of the consumer notification of tap results to the Department along with a certification that the notification has been distributed in a manner consistent with the requirements of R.61-58.11G(4).

(d) Annually by July 1, the water system must demonstrate to the Department that it delivered annual consumer notification and delivered lead service line information materials to affected consumers with a lead, galvanized requiring replacement, or lead status unknown service line in accordance with R.61-58.11.G(5) for the previous calendar year. The water system shall also provide a copy of the notification and information materials to the Department.

(e) Annually by July 1, the water system must demonstrate to the Department that it conducted an outreach activity in accordance with R.61-58.11.G(8) when failing to meet the lead service line replacement goal as specified in R.61-58.11.F(6) for the previous calendar year. The water system shall also submit a copy to the Department of the outreach provided.

(f) Annually, by July 1, the water system must certify to the Department that it delivered notification to affected customers after any lead service line disturbance in accordance with R.61-58.11.G(6) for the previous calendar year. The water system shall also submit a copy of the notification to the Department.

(g) Annually, by July 1, the water system must certify to the Department that it delivered the required find-and-fix information to the Department and local health departments for the previous calendar year.

(7) Reporting of Additional Monitoring Data. Any water system which collects more samples than the minimum required, shall report the results to the Department within the first ten (10) days following the end of the applicable monitoring period under R.61-58.11.H, R.61-58.11.I, and R.61-58.11.J during which the samples are collected. This includes the monitoring data pertaining to ‘‘find-and-fix’’ pursuant to R.61-58.11.H(8) and R.61-58.11.I(7). The system must certify to the Department the number of customer refusals or nonresponses for follow-up sampling under R.61-58.11.D(10) it received and information pertaining to the accuracy of the refusals or non-responses, within the first ten (10) days following the end of the applicable tap sampling period in which an individual sample exceeded the action level.

(8) Reporting of 90th Percentile Lead and Copper Concentrations Where the Department Calculates a Water 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 tap sampling monitoring period, as required by paragraph (1)(a)(iv) of this section if:

(a) The Department 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 (8)(b)(i) of this section, and the water system provides the results of lead and copper tap water samples no later than ten (10) days after the end of the applicable tap sampling monitoring period;

(b) The system has provided the following information to the Department by the date specified in paragraph (8)(a) of this section:

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under R.61-58.11.H(1)(c) through (j), under which the site was selected for the system's sampling pool; and

(ii) An identification of sampling sites utilized during the current tap sampling monitoring period that were not sampled during previous monitoring periods, and an explanation of why sampling sites have changed; and

(c) The Department has provided the results of the 90th percentile lead and copper calculations, in writing, to the water system within fifteen (15) days of the end of the tap sampling period.

(9) Reporting Requirements for a Community Water System's Public Education and Sampling in Schools and Child Care Facilities.

(a) A community water system shall send a report to the Department by July 1 of each year for the previous calendar year's activity. The report must include the following:

(i) Certification that the water system made a good faith effort to identify schools and child care facilities in accordance with R.61-58.11.N(5). The good faith effort may include reviewing customer records and requesting lists of schools and child care facilities from the primacy agency or other licensing agency. A water system that certifies that no schools or child care facilities are served by the water system is not required to include information in paragraphs (9)(a)(ii) through (iv) of this section in the report. If there are changes to schools and child care facilities that a water system serves, an updated list must be submitted at least once every five (5) years in accordance with R.61-58.11.N(5).

(ii) Certification that the water system has delivered information about health risks from lead in drinking water to the school and child care facilities that they serve in accordance with R.61-58.11.N(1)(b) and (7)(a).

(iii) Certification that the water system has completed the notification and sampling requirements of R.61-58.11.N and paragraphs (9)(a)(iii)(A) through (E) of this section at a minimum of twenty percent (20%) of elementary schools and twenty percent (20%) of child care facilities. Certification that the water system has completed the notification and sampling requirements of R.61-58.11.N(7) and paragraphs (9)(a)(iii)(A), (B), and (E) of this section for any secondary school(s) sampled. After a water system has successfully completed one (1) cycle of required sampling in all elementary schools and child care facilities identified in R.61-58.11.N(1)(a), it shall certify completion of the notification and sampling requirements of R.61-58.11.N(7) and paragraphs (9)(a)(iii)(A), (B), and (E) of this section for all sampling completed in any school or child care facility, thereafter.

(A) The number of schools and child care facilities served by the water system;

(B) The number of schools and child care facilities sampled in the calendar year;

(C) The number of schools and child care facilities that have refused sampling;

(D) Information pertaining to outreach attempts for sampling that were declined by the school or child care facility; and

(E) The analytical results for all schools and child care facilities sampled by the water system in the calendar year.

(iv) Certification that sampling results were provided to schools, child care facilities, and local and state health departments.

(b) [Reserved]

(10) Reporting Requirements for Small System Compliance Flexibility Options.

By the applicable dates provided in paragraphs (10)(a) and (b), water systems implementing requirements pursuant to R.61-58.11.O, shall provide the following information to the Department:

(a) Small water systems and non-transient, non-community water systems implementing the point-of-use (POU) device option under R.61-58.11.O(1)(c), shall report the results from the tap sampling required under R.61-58.11.O no later than ten (10) days after the end of the tap sampling monitoring period. If the trigger level is exceeded, the water system must reach out to the homeowner and/or building management within twenty-four (24) hours of receiving the tap sample results. The corrective action must be completed within thirty (30) days. If the corrective action is not completed within thirty (30) days, the system must provide documentation to the Department within thirty (30) days explaining why it was unable to correct the issue. Water systems selecting the POU device option under R.61-58.11.O(1)(c) shall provide documentation to certify maintenance of the POU devices unless the Department waives the requirement of this paragraph (10)(a).

(b) Small community water systems and non-transient, non-community water systems implementing the small system compliance flexibility option to replace all lead-bearing plumbing under R.61-58.11.O(1)(d) must provide certification to the Department that all lead-bearing material has been replaced on the schedule established by the Department, within one (1) year of designation of the option under R.61-58.11.O(1)(d).

M. Recordkeeping Requirements.

Any system subject to the requirements of this regulation shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, Department determinations, and any other information required by R.61-58.11.C through R.61-58.11.J, R.61-58.11.L, R.61-58.11.N, and R.61-58.11.O. Each water system shall retain the records required by this section for no fewer than twelve (12) years.

N. Monitoring for Lead in Schools and Child Care Facilities.

All community water systems must conduct directed public education and lead monitoring at the schools and child care facilities they serve if those schools or child care facilities were constructed prior to January 1, 2014, or the date the state adopted standards that meet the definition of lead free in accordance with Section 1417 of the Safe Drinking Water Act, as amended by the Reduction of Lead in Drinking Water Act, whichever is earlier. Water systems must conduct lead sampling at elementary schools and child care facilities they serve once and on request of the facility thereafter. Water systems shall also conduct lead sampling at secondary schools they serve on request. The provisions of this section do not apply to a school or child care facility that is regulated as a public water system. The provisions in paragraph (1) of this section apply until a water system samples all the elementary schools and child care facilities they serve once as specified in paragraph (3) of this section. Thereafter, water systems shall follow the provisions as specified in paragraph (7) of this section.

(1) Public Education to Schools and Child Care Facilities

(a) By the compliance date specified in R.61-58.11.B(1)(c), each water system must compile a list of schools and child care facilities served by the system.

(b) Each water system must contact elementary schools and child care facilities identified by the system in paragraph (1)(a) of this section to provide:

(i) Information about health risks from lead in drinking water on at least an annual basis consistent with the requirements of R.61-58.11.G(1);

(ii) Notification that the water system is required to sample for lead at elementary schools and child care facilities, including:

(A) A proposed schedule for sampling at the facility;

(B) Information about sampling for lead in schools and child care facilities (EPA's 3Ts for Reducing Lead in Drinking Water Toolkit, EPA–815–B–18–007 or subsequent EPA guidance); and

(C) Instructions for identifying outlets for sampling and preparing for a sampling event thirty (30) days prior to the event.

(c) The water system must include documentation in accordance with R.61-58.11.L(9) if an elementary school or child care facility is non-responsive or otherwise declines to participate in the monitoring or education requirements of this section. For the purposes of this section, a school or child care facility is non-responsive after the water system makes at least two (2) separate good faith attempts to contact the facility to schedule sampling with no response.

(d) The water system must contact all secondary schools in paragraph (1)(a) of this section on at least an annual basis to provide information on health risks from lead in drinking water and how to request lead sampling as specified in paragraph (7)(a) of this section.

(2) Lead Sampling in Schools and Child Care Facilities

(a) Five (5) samples per school and two (2) samples per child care facility at outlets typically used for consumption shall be collected. Except as provided in paragraphs (2)(a)(i) through (vi) of this section, the outlets shall not have point-of-use (POU) devices. The water system shall sample at the following locations:

(i) For schools: two (2) drinking water fountains, one (1) kitchen faucet used for food or drink preparation, one (1) classroom faucet or other outlet used for drinking, and one (1) nurse's office faucet, as available.

(ii) For child care facilities: one (1) drinking water fountain and one (1) of either a kitchen faucet used for preparation of food or drink or one (1) classroom faucet or other outlet used for drinking.

(iii) If any facility has fewer than the required number of outlets, the water system must sample all outlets used for consumption.

(iv) The water system may sample at outlets with POU devices if the facility has POU devices installed on all outlets typically used for consumption.

(v) If any facility does not contain the type of faucet listed above, the water system shall collect a sample from another outlet typically used for consumption as identified by the facility.

(vi) Water systems must collect the samples from the cold water tap subject to the following additional requirements:

(A) Each sample for lead shall be a first-draw sample;

(B) The sample must be two hundred fifty milliliters (250 ml) in volume;

(C) The water must have remained stationary in the plumbing system of the sampling site (building) for at least eight (8) hours but no more than eighteen (18) hours; and

(D) Samples must be analyzed using acidification and the corresponding analytical methods in R.61-58.11.K.

(b) The water system, school or child care facility, or other appropriately trained individual may collect samples in accordance with paragraph (2)(a) of this section.

(3) Frequency of Sampling at Elementary Schools and Child Care Facilities

(a) Water systems shall collect samples from at least twenty percent (20%) of elementary schools served by the system and twenty percent (20%) of child care facilities served by the system per year, or according to a schedule approved by the Department, until all schools and child care facilities identified under paragraph (1)(a) of this section have been sampled or have declined to participate. For the purposes of this section, a water system may count a refusal or non-response from an elementary school or child care facility as part of the minimum twenty percent (20%) per year.

(b) All elementary schools and child care facilities must be sampled at least once in the five (5) years following the compliance date in R.61-58.11.B(1)(c).

(c) After a water system has completed one (1) required cycle of sampling in all elementary schools and child care facilities, a water system must sample at the request of an elementary school or child care facility in accordance with paragraph (7) of this section.

(d) A water system must sample at the request of a secondary school as specified in paragraph (7) of this section. If a water system receives requests from more than twenty percent (20%) of secondary schools identified in paragraph (1)(a) of this section in any of the five (5) years following the compliance date in R.61-58.11.B(1)(c), the water system may schedule the requests that exceed twenty percent (20%) for the following year and is not required to sample an individual secondary school more than once in the five (5)-year period.

(4) Alternative School and Child Care Lead Sampling Programs

(a) If mandatory sampling for lead in drinking water is conducted for schools and child care facilities served by a community water system due to state or local law or program, the Department may exempt the water system from the requirements of this section by issuing a written waiver:

(i) If the sampling is consistent with the requirements in paragraphs (2) and (3) of this section; or

(ii) If the sampling is consistent with the requirements in paragraphs (2)(a)(i) through (vi) and (3) of this section and it is coupled with any of the following remediation actions:

(A) Disconnection of affected fixtures;

(B) Replacement of affected fixtures with fixtures certified as lead free; and

(C) Installation of POU devices; or

(iii) If the sampling is conducted in schools and child care facilities served by the system less frequently than once every five (5) years and it is coupled with any of the remediation actions specified in paragraph (4)(a)(ii) of this section; or

(iv) If the sampling is conducted under a grant awarded under Section 1464(d) of the SDWA, consistent with the requirements of the grant.

(b) The duration of the waiver may not exceed the time period covered by the mandatory or voluntary sampling and will automatically expire at the end of any twelve (12)-month period during which sampling is not conducted at the required number of schools or child care facilities.

(c) The Department may issue a partial waiver to the water system if the sampling covers only a subset of the schools or child care facilities served by the system as designated under paragraph (1)(a) of this section.

(d) The Department may issue a written waiver applicable to more than one (1) system (e.g., one (1) waiver for all systems subject to a statewide sampling program that meets the requirements of paragraph (4) of this section).

(5) Confirmation or Revision of Schools and Child Care Facilities in Inventory

A water system shall either confirm that there have been no changes to its list of schools and child care facilities served by the system developed pursuant to paragraph (1)(a) of this section, or submit a revised list at least once every five (5) years.

(6) Notification of results

(a) A water system must provide analytical results as soon as practicable but no later than thirty (30) days after receipt of the results to the school or child care facility, along with information about remediation options.

(b) A water system must provide analytical results annually to:

(i) The local and state health department; and

(ii) The Department in accordance with R.61-58.11.L(9).

(7) Lead Sampling in Schools and Child Care Facilities on Request

(a) A water system must contact schools and child care facilities identified in paragraph (1)(a) of this section on at least an annual basis to provide:

(i) Information about health risks from lead in drinking water;

(ii) Information about how to request sampling for lead at the facility; and

(iii) Information about sampling for lead in schools and child care facilities (EPA's 3Ts for Reducing Lead in Drinking Water Toolkit, EPA–815–B–18–007, or subsequent EPA guidance).

(b) A water system must conduct sampling as specified in paragraph (2) of this section when requested by the facility and provide:

(i) Instructions for identifying outlets for sampling and preparing for a sampling event at least thirty (30) days prior to the event; and

(ii) Results as specified in paragraph (6) of this section.

(c) If a water system receives requests from more than twenty percent (20%) of the schools and child care facilities identified in paragraph (1)(a) of this section in a given year, the water system may schedule sampling for those that exceed twenty percent (20%) for the following year. A water system is not required to sample an individual school or child care facility more than once every five (5) years.

(d) If voluntary sampling for lead in drinking water is conducted for schools and child care facilities served by a community water system that meets the requirements of this section, the Department may exempt the water system from the requirements of this section by issuing a written waiver in accordance with paragraph (4) of this section.

O. Small Water System Compliance Flexibility.

The compliance alternatives described in this section apply to small community water systems serving 10,000 or fewer persons and all non-transient, non-community water systems. Small community water systems and non-transient, non-community water systems with corrosion control treatment in place must continue to operate and maintain optimal corrosion control treatment (OCCT) until the Department determines, in writing, that it is no longer necessary, and meet any requirements that the Department determines to be appropriate before implementing a Department-approved compliance option described in this section.

(1) A small community water system and non-transient, non-community water systems that exceeds the lead trigger level but does not exceed the lead and copper action levels must collect water quality parameters in accordance with R.61-58.11.I(2) and evaluate compliance options in paragraphs (1)(a) through (d) of this section and make a compliance option recommendation to the Department within six (6) months of the end of the tap sampling period in which the exceedance occurred. The Department must approve the recommendation or designate an alternative from compliance options in paragraphs (1)(a) through (d) of this section within six (6) months of the recommendation by the water system. If the water system subsequently exceeds the lead action level it must implement the approved compliance option as specified in paragraph (2) of this section. Water systems must select from the following compliance options:

(a) Lead service line replacement

A water system must implement a full lead service line replacement program on a schedule approved by the Department but not to exceed fifteen (15) years. A water system must begin lead service line replacement within one (1) year after the Department's approval or designation of the compliance option.

(i) Lead service line replacement must be conducted in accordance with the requirements of R.61-58.11.F(5) and (7)(d), (h), and (i).

(ii) A water system must continue lead service line replacement even if the system's 90th percentile lead level is at or below the action level in future tap sampling monitoring periods.

(iii) A water system must have no lead service lines, galvanized service lines requiring replacement, or ''Lead status unknown'' service lines in its inventory by the end of its lead service line replacement program.

(b) Corrosion control treatment

A water system must install and maintain optimal corrosion control treatment in accordance with R.61-58.11.C and R.61-58.11.D, even if its 90th percentile is at or below the action level in future tap sampling monitoring periods. Any water system that has corrosion control treatment installed must re-optimize its corrosion control treatment in accordance with R.61-58.11.C(4). Water systems required by the Department to optimize or re-optimize corrosion control treatment must follow the schedules in R.61-58.11.C(4) or (5), beginning with Step 3 in paragraph (4)(c) or (5)(c) of R.61-58.11.C unless the Department specifies optimal corrosion control treatment pursuant to either R.61-58.11.C(4)(b)(ii) or (5)(b)(i) or (ii), as applicable.

(c) Point-of-use devices

A water system must install, maintain, and monitor POU devices in each household or building even if its 90th percentile is at or below the action level in future tap sampling monitoring periods.

(i) Location Requirements

(A) A community water system must install a minimum of one (1) POU device (at one (1) tap) in every household and at every tap that is used for cooking and/or drinking in every non-residential building in its distribution system on a schedule specified by the Department, but not to exceed one (1) year.

(B) A non-transient, non-community water system must provide a POU device to every tap that is used for cooking and/or drinking on a schedule specified by the Department, but not to exceed three (3) months.

(ii) The POU device must be independently certified by a third party to meet the American National Standards Institute standard applicable to the specific type of POU unit to reduce lead in drinking water.

(iii) The POU device must be maintained by the water system according to manufacturer's recommendations to ensure continued effective filtration, including, but not limited to, changing filter cartridges and resolving any operational issues. The POU device must be equipped with mechanical warnings to ensure that customers are automatically notified of operational problems. The water system shall provide documentation to the Department to certify maintenance of the POU devices, unless the Department waives this requirement, in accordance with R.61-58.11.L(10)(a).

(iv) The water system must monitor one-third of the POU devices each year and all POU devices must be monitored within a three (3)-year cycle. First-draw tap samples collected under this section must be taken after water passes through the POU device to assess its performance. Samples must be one-liter (1 L) in volume and have had a minimum six (6)-hour stagnation time. All samples must be at or below the lead trigger level. The water systems must report the results from the tap sampling no later than ten (10) days after the end of the tap sampling monitoring period in accordance with R.61-58.11.L(10)(a). The system must document the problem and take corrective action at any site where the sample result exceeds the lead trigger level. If the trigger level is exceeded, the water system must reach out to the homeowner and/or building management no later than twenty-four (24) hours of receiving the tap sample results. The corrective action must be completed within thirty (30) days. If the corrective action is not completed within thirty (30) days, the system must provide documentation to the Department within thirty (30) days explaining why it was unable to correct the issue.

(v) The water system must provide public education to consumers in accordance with R.61-58.11.G(10) to inform them on proper use of POU devices to maximize the units' lead level reduction effectiveness.

(vi) The water system must operate and maintain the POU devices until the system receives Department approval to select one of the other compliance flexibility options and implements it.

(d) Replacement of lead-bearing plumbing

A water system that has control over all plumbing in its buildings, and no unknown, galvanized, or lead service lines, must replace all plumbing that is not lead free in accordance with Section 1417 of the Safe Drinking Water Act, as amended by the Reduction of Lead in Drinking Water Act and any future amendments applicable at the time of replacement. The replacement of all lead-bearing plumbing must occur on a schedule established by the Department but not to exceed one (1) year. Water systems must provide certification to the Department that all lead-bearing material has been replaced in accordance with R.61-58.11.L(10)(b).

(2)(a) A water system that exceeds the lead action level after exceeding the lead trigger level but does not exceed the copper action level must implement the compliance option approved by the Department under paragraph (1) of this section.

(b) A water system that exceeds the lead action level, but has not previously exceeded the lead trigger level, and does not exceed the copper action level must complete the provisions in paragraph (1) of this section and must implement the compliance option approved by the Department under paragraph (1) of this section.

(c) A water system that exceeds the trigger level after it has implemented a compliance option approved by the Department under paragraph (1) of this section, must complete the steps in paragraph (1) and if it thereafter exceeds the action level, it must implement the compliance option approved by the Department under paragraph (1) of this section.

Amend R.61-58.12.C.4 to read:

(4) Information on Detected Contaminants.

(a) This sub-section specifies the requirements for information to be included in each report for contaminants subject to mandatory monitoring (except Cryptosporidium). It applies to:

(i) Contaminants subject to an MCL, action level, maximum residual disinfectant level or treatment technique (regulated contaminants);

(ii) Contaminants for which monitoring is required by R.61-58.5.T, Special Monitoring for Inorganic and Organic Contaminants (unregulated contaminants); and

(iii) Disinfection by-products or microbial contaminants for which monitoring is required by Secs. 141.142 and 141.143 (Information Collection Rule for disinfection by-products (DBP) and Microbials (ICR)), of the National Primary Drinking Water Regulations (NPDWR), and which are detected in the finished water.

(b) The data relating to these contaminants shall be displayed in one table or in several adjacent tables. Any additional monitoring results which a community water system chooses to include in its report shall be displayed separately.

(c) The data shall be derived from data collected to comply with EPA and Department monitoring and analytical requirements during calendar year 1998 for the first report and subsequent calendar years thereafter except that:

(i) Where a system is allowed to monitor for regulated contaminants less often than once a year, the table(s) shall include the date and results of the most recent sampling and the report shall include a brief statement indicating that the data presented in the report are from the most recent testing done in accordance with the regulations. No data older than 5 years need be included.

(ii) Results of monitoring in compliance with the ICR (Secs. 141.142 and 141.143 of the NPDWR), need only be included for 5 years from the date of last sample or until any of the detected contaminants becomes regulated and subject to routine monitoring requirements, whichever comes first.

(d) For detected regulated contaminants (listed in Appendix D to this regulation), the table(s) shall contain:

(i) The MCL for that contaminant expressed as a number equal to or greater than 1.0 (as provided in Appendix D to this regulation);

(ii) The MCLG for that contaminant expressed in the same units as the MCL;

(iii) If there is no MCL for a detected contaminant, the table shall indicate that there is a treatment technique, or specify the action level, applicable to that contaminant, and the report shall include the definitions for treatment technique and/or action level, as appropriate, specified in paragraph(3)(c) of this section;

(iv) For contaminants subject to an MCL, except turbidity, total coliforms, fecal coliform and E.coli, the highest contaminant level used to determine compliance with R.61-58.5, Maximum Contaminant Levels in Drinking Water, and the range of detected levels, as follows:

(A) When compliance with the MCL is determined annually or less frequently: The highest detected level at any sampling point and the range of detected levels expressed in the same units as the MCL.

(B) When compliance with the MCL is determined by calculating a running annual average of all samples taken at a monitoring location: the highest average of any of the monitoring locations and the range of all monitoring locations expressed in the same units as the MCL. For the MCLs for TTHM and HAA5 in R.61 58.5.P(2)(b), systems must include the highest locational running annual average for TTHM and HAA5 and the range of individual sample results for all monitoring locations expressed in the same units as the MCL. If more than one location exceeds the TTHM or HAA5 MCL, the system must include the locational running annual averages for all locations that exceed the MCL.

(C) When compliance with the MCL is determined on a system wide basis by calculating a running annual average of all samples at all monitoring locations: the average and range of detection expressed in the same units as the MCL. The system is required to include individual sample results for the IDSE conducted under R.61 58.14 when determining the range of TTHM and HAA5 results to be reported in the annual consumer confidence report for the calendar year that the IDSE samples were taken.

Note to paragraph (4)(d)(iv): When rounding of results to determine compliance with the MCL is allowed by the regulations, rounding should be done prior to multiplying the results by the factor listed in Appendix D of this regulation;

(v) For turbidity.

(A) When it is reported pursuant to the requirements of R.61- 58.10.C, Filtration and Disinfection [criteria for avoiding filtration]: the highest monthly value. The report should include an explanation of the reasons for measuring turbidity.

(B) When it is reported pursuant to R.61-58.10.E, Filtration and Disinfection [filtration], or R.61-58.10.H(4): The highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in R.61-58.10.E, Filtration, or R.61-58.10.H(4): for the filtration technology being used. The report should include an explanation of the reasons for measuring turbidity;

(C) When it is reported pursuant to R.61-58.10.E or R.61-58.10.H(4) or R.61-58.10.I(6): the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in R.61-58.10.E or R.61-58.10.H(4) or R.61-58.10.I(6) for the filtration technology being used. The report should include an explanation of the reasons for measuring turbidity.

(vi) For lead and copper: the 90th percentile concentration of the most recent round(s) of sampling, ~~and~~ the number of sampling sites exceeding the action level, and the range of tap sampling results;

(vii) For total coliform analytical results until March 31, 2016:

(A) The highest monthly number of positive samples for systems collecting fewer than forty (40) samples per month; or

(B) The highest monthly percentage of positive samples for systems collecting at least forty (40) samples per month.

(viii) For fecal coliform and E.coli. until March 31, 2016: The total number of positive samples;

(ix) The likely source(s) of detected contaminants to the best of the operator's knowledge. Specific information regarding contaminants may be available in sanitary surveys and source water assessments, and should be used when available to the operator. If the operator lacks specific information on the likely source, the report shall include one or more of the typical sources for that contaminant listed in Appendix D to this regulation which are most applicable to the system~~.~~;

(x) For E.coli analytical results under R.61-58.17: The total number of positive samples~~.~~;

(xi) The report shall include a statement that a service line inventory (including inventories consisting only of a statement that there are no lead service lines) has been prepared and include instructions to access the service line inventory; and

(xii) The report shall notify consumers that complete lead tap sampling data are available for review and shall include information on how to access the data.

Amend R.61-58.12.D.4(a) to read:

(4) Every report must include the following lead-specific information:

(a) A short informational statement about lead in drinking water and its effects on children. The statement must include the following information: 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 and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry, or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact [NAME OF UTILITY and CONTACT INFORMATION]. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Amend R.61-58.12. Appendix D to read:

APPENDIX D. CONSUMER CONFIDENCE REPORTS: REGULATED CONTAMINANTS

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Microbiological contaminants:						
Total Coliform Bacteria†	MCL: (systems that collect ≥ 40 samples/month) 5% of monthly samples are positive; (systems that collect <40 samples/month) 1 positive monthly sample.		MCL: (systems that collect ≥40 samples/month) 5% of monthly samples are positive; (systems that collect <40 samples/month) 1 positive monthly sample.	0	Naturally present in the environment	Coliforms are bacteria that are naturally present in the and are used as an indicator that other, potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Total Coliform Bacteria‡	TT			N/A	Naturally present in the environment	Use language in R.51-58.12. C(11)(g)(i)(A)
Fecal coliform and E. coli†	0		0	0	Human and animal fecal waste	Fecal coliforms and E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely-compromised immune systems.
E. coli‡	Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli		Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat	0	Human and animal fecal waste	E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
			sample for E. coli			
Fecal Indicators (enterococci or coliphage).	TT		TT	N/A	Human and animal fecal waste.	Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Total organic carbon (ppm)	TT		TT	N/A	Naturally present	Total organic carbon (TOC) has no health effects. However, total organic carbon in the environment provides a medium for the formation of disinfection by-products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
Turbidity (NTU)	TT		TT	N/A	Soil runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
Radioactive contaminants:						
Beta/photon emitters (mrem/yr)	4 mrem/yr		4	N/A	Decay of natural and man-made deposits.	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
						beta and photon in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters (pCi/L)	15 pCi/L		15	N/A	Erosion of natural deposits.	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/L)	5 pCi/L		5	N/A	Erosion of natural deposits.	Some people who drink water containing radium-226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (pCi/L)	30 µg/L		30	0	Erosion of natural deposits.	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk getting cancer and kidney toxicity.
Inorganic contaminants:						
Antimony (ppb)	.006	1000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb)	10.010	1000	110.	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Asbestos (MFL)	7 MFL		7	7	Decay of asbestos cement water mains; production wastes; erosion of natural deposits.	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium (ppm)	2		2	2	Discharge of drilling; wastes; Discharge from metal refineries; Erosion of natural deposits.	Some people who drink water containing barium in of the MCL over many years could experience an increase in their blood pressure.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Beryllium (ppb)	.004	1000	4	4	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions
Bromate (ppb)	.010	1000	10	0	By-product of drinking water chlorination.	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Cadmium (ppb)	.005	1000	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints.	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Chloramines (ppm)	MRDL = 4		MRDL = 4	MRDLG = 4	Water additive used to control microbes.	Some people who use water containing chloramines well in excess of the MRDL could experience irritating to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine (ppm)	MRDL = 4		MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorine dioxide (ppb)	MRDL = .8	1000	MRDL = 800	MRDLG = 800	Water additive used to control microbes	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Chlorite (ppm)	1		1	0.8	By-product of drinking water chlorination.	Some infants and young children who drink water containing chlorite in excess of the MCL could

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
						experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
Chromium (ppb)	.1	1000	100	100	Discharge from steel and pulp; mills; Erosion of Natural deposits.	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Copper (ppm)	AL=1.3		AL=1.3	1.3	Corrosion of household plumbing. Erosion of natural deposits.	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Cyanide (ppb)	2	1000	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
Fluoride (ppm)	4		4	4	Erosion of natural deposits; Water additive which promotes strong teeth Discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Lead	AL=.015	1000	AL=15	0	Corrosion of household plumbing	Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
					systems; Erosion of natural deposits	children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.
Mercury [inorganic] (ppb)	.002	1000	2	2	Erosion of natural deposits; discharge from refineries and factories; Runoff from landfills; Runoff from cropland.	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage
Nitrate (ppm)	10		10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Nitrite (ppm)	1		1	1	Runoff from fertilizer use; Leaching from septic tanks sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Selenium (ppb)	.05	1000	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation
Thallium (ppb)	.002	1000	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Synthetic organic contaminants including pesticides and herbicides:						
2,4-D (ppb)	.07	1000	70	70	Runoff from herbicide used on row crops.	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
2,4,5-TP [Silvex](ppb)	.05	1000	50	50	Residue of banned herbicide	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
Acrylamide	TT		TT	0	Added to water during sewage/ wastewater treatment.	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have risk of getting cancer.
Alachlor (ppb)	.002	1000	2	0	Runoff from herbicide used on row crops.	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	.003	1000	3	3	Runoff from herbicide used on row crops.	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Benzo(a)pyrene [PAH] (nanograms/l).	.0002	1,000,000	200	0	Leaching from linings of water storage tanks distribution lines.	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb)	.04	1000	40	40	Leaching of soil fumigant used on rice and alfalfa.	Some people who drink carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
Chlordane (ppb)	.002	1000	2	0	Residue of banned termiticide	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
						system, and may have an increased risk of getting cancer.
Dalapon (ppb)	.2	1000	200	200	Runoff from herbicide used on rights of way.	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
Di(2-ethylhexyl) adipate (ppb).	.4	1000	400	400	Discharge from chemical factories.	Some people who drink water containing di(2-ethylhexyl) adipate well in excess of the MCL over many years could experience toxic effects such as weight loss, liver enlargement or possible reproductive difficulties.
Di(2-ethylhexyl) phthalate (ppb).	.006	1000	6	0	Discharge from rubber and chemical factories.	Some people who drink water containing di(2-ethylhexyl) phthalate well in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane (ppt)	.0002	1,000,000	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive problems and may have an increased risk of getting cancer.
Dinoseb (ppb)	.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables.	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
Diquat (ppb)	.02	1000	20	20	Runoff from herbicide use.	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
Dioxin [2,3,7,8-TCDD] (ppq).	.00000003	1,000,000,000	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories.	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Endothall (ppb)	.1	1000	100	100	Runoff from herbicide use.	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Endrin (ppb)	.002	1000	2	2	Residue of banned insecticide.	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
Epichlorohydrin.	TT		TT	0	Discharge from industrial chemical factories; An impurity of some water treatment chemicals.	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide (ppt)	.00005	1,000,000	50	0	Discharge from petroleum refineries.	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
Glyphosate (ppb)	.7	1000	700	700	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
Heptachlor (ppt)	.0004	1,000,000	400	0	Residue of banned pesticide.	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt)	.0002	1,000,000	200	0	Breakdown of heptachlor.	Some people who drink water containing heptachlor epoxidein excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene (ppb)	.001	1000	1	0	Discharge from metal refineries and agricultural chemical factories.	Some people who drink water containing Hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects and may have an increased risk of getting cancer
Hexachlorocyclopentadiene (ppb)	.05	1000	50	50	Discharge from chemical factories	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
						over many years could experience problems with their kidneys or stomach.
Lindane (ppt)	.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens.	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
Methoxychlor (ppb)	.04	1000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties
Oxamyl [Vydate] (ppb)	.2	1000	200	200	Runoff/leaching from insecticide used on apples potatoes and tomatoes.	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
PCBs [Polychlorinated biphenyls] (ppt).	.0005	1,000,000	500	0	Runoff from landfills Discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol (ppb)	.001	1000	1	0	Discharge from wood preserving factories	Some people who drink water containing pentachlorophenolin excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
Picloram (ppb)	.5	1000	500	500	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
Simazine (ppb)	.004	1000	4	4	Herbicide runoff	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
Toxaphene (ppb)	.003	1000	3	0	Runoff/leaching from insecticide used on cotton and cattle.	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Volatile organic contaminants:						
Benzene (ppb)	.005	1000	5	0	Discharge from factories; Leaching from gas storage tanks and landfills.	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Carbon tetrachloride (ppb)	.005	1000	5	0	Discharge from chemical plants and other industrial activities.	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with in their liver and may have an increased risk of getting cancer.
Chlorobenzene (ppb)	.1	1000	100	100	Discharge from chemical and agricultural chemical factories	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
o-Dichlorobenzene (ppb)	.6	1000	600	600	Discharge from industrial chemical	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over liver, kidneys, or circulatory systems.
p-Dichlorobenzene (ppb)	.075	1000	75	75	Discharge from industrial chemical factories	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
1,2-Dichloroethane (ppb)	.005	1000	5	0	Discharge from industrial chemical factories.	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer
1,1-Dichloroethylene (ppb)	.007	1000	7	7	Discharge from industrial chemical factories.	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
cis-1,2-Dichloroethylene (ppb)	.07	1000	70	70	Discharge from industrial chemical factories.	Some people who drink water containing cis-1,2-dichloroethy -lene in excess of the MCL over many years could

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
						experience problems with their liver.
trans-1,2-Dichloroethylene (ppb).	.1	1000	100	10	Discharge from industrial chemical factories.	Some people who drink water containing trans-1,2-dichloro-ethylene well in excess of the MCL over many years could experience problems with their liver.
Dichloromethane (ppb)	.005	1000	5	0	Discharge from pharmaceutical and chemical factories	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increase risk of getting cancer.
1,2-Dichloropropane (ppb)	.005	1000	5	0	Discharge from industrial chemical factories.	Some people who drink water containing 1,2-Dichloropropane excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	.7	1000	700	700	Discharge from petroleum refineries.	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
Haloacetic Acids (HAA) (ppb).	.060	1000	60	N/A	By-product of drinking water disinfection.	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Styrene (ppb)	.1	1000	100	100	Discharge from rubber and plastic factories and leaching from landfills.	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys or circulatory system.
Tetrachloroethylene (ppb)	.005	1000	5	0	Discharge from factories and dry cleaners.	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene (ppb)	.07	1000	70	70	Discharge from textile-finishing factories.	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
1,1,1-Trichloroethane (ppb)	.2	1000	200	200	Discharge from metal degreasing	Some people who drink water containing 1,1,1-trichloroethane in

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
					sites and other factories.	excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-Trichloroethane (ppb).	.005	1000	5	3	Discharge from industrial chemical factories.	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
Trichloroethylene (ppb)	.005	1000	5	0	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
TTHMs [Total trihalomethanes] (ppb)	0.10/.080	1000	100/80	N/A	By-product of drinking water disinfection.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Toluene (ppm)	1		1	1	Discharge from petroleum factories.	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
Vinyl Chloride (ppb)	.002	1000	2	0	Leaching from PVC piping; Discharge from from plastics factories.	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes (ppm)	10		10	10	Discharge from petroleum factories; Discharge from chemical factories.	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

Key:
AL=Action Level
MCL=Maximum Contaminant Level
MCLG=Maximum Contaminant Level Goal
MFL=million fibers per liter
MRDL=Maximum Residual Disinfectant Level
MRDLG=Maximum Residual Disinfectant Level Goal
mrem/year=millirems per year (a measure of radiation absorbed by the body)
N/A=Not Applicable
NTU=Nephelometric Turbidity Units (a measure of water clarity)
pCi/l=picocuries per liter (a measure of radioactivity)
ppm=parts per million, or milligrams per liter (mg/L)
ppb=parts per billion, or micrograms per liter (µg/l)
ppt=parts per trillion, or nanograms per liter

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language

ppq=parts per quadrillion, or picograms per liter TT=Treatment Technique

Appendix D to R.61-58.12 - endnotes

1These arsenic values are effective January 23, 2006. Until then, the MCL is 0.05 mg/L and there is no MCLG.

†Until March 31, 2016

‡Beginning April 1, 2016

Amend R.61-58.16.D. to read:

D. Sanitary Surveys For Ground Water Systems.

(1) Ground water systems must provide the Department, at the Department's request, any existing information that will enable the Department to conduct a sanitary survey.

(2) For the purposes of R.61-58.16, a "sanitary survey," as conducted by the Department, includes, but is not limited to, an onsite review of the water source(s) (identifying sources of contamination by using results of source water assessments or other relevant information where available), facilities, equipment, operation, maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water.

(3) The sanitary survey must include an evaluation of the applicable components listed in paragraphs R.61-58.16.D(3)(a) through (h).

(a) Source.

(b) Treatment including corrosion control treatment and water quality parameters as applicable.

(c) Distribution system.

(d) Finished water storage.

(e) Pumps, pump facilities, and controls.

(f) Monitoring, reporting, and data verification.

(g) System management and operation.

(h) Operator compliance with Department requirements.

Statement of Need and Reasonableness:

The following presents an analysis of the factors listed in 1976 Code Sections 1-23-115(C)(1)-(3) and (9)-(11):

DESCRIPTION OF REGULATION: R.61-58, State Primary Drinking Water Regulations.

Purpose: The Department proposes amending R.61-58 to adopt federal regulations commonly referred to as the Lead and Copper Rule Revisions to maintain compliance with federal regulations and maintain primary enforcement authority for the Safe Drinking Water Act in the state.

Legal Authority: 1976 Code Sections 44-55-10 et seq.

Plan for Implementation: The amendments will take legal effect upon publication in the State Register. Department personnel will then take appropriate steps to inform the regulated community of the amendments. Additionally, a copy of the regulation will be posted on the Department's website, accessible at www.scdhec.gov/regulations-table. Printed copies may also be requested, for a fee, from the Department's Freedom of Information Office.

DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The adoption of these proposed amendments will allow the Department to maintain primary enforcement authority for the Safe Drinking Water Act in the state. The proposed amendments will comply with Title 40, Parts 141 and 142 of the Code of Federal Regulations (40 CFR 141 and 142). These proposed amendments update several aspects of the control of lead and copper in drinking water, to include sample site selection, monitoring procedures, corrosion control requirements, and public education requirements. The proposed amendments also require public water systems to offer to sample lead in drinking water for schools and child care facilities in their service areas.

DETERMINATION OF COSTS AND BENEFITS:

These proposed amendments may result in a cost savings to the regulated community in that it will allow public water systems to correspond and interact with state regulators as opposed to federal regulators. There is no anticipated increase in costs to the state or its political subdivisions resulting from these proposed revisions.

UNCERTAINTIES OF ESTIMATES:

There are no uncertainties of estimates relative to the costs to the state or its political subdivisions.

EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH:

There are no anticipated effects on the environment from these proposed amendments. These proposed amendments provide an opportunity for enhanced public health protection by reducing the public's exposure to lead in drinking water.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

There will be no detrimental effect on the environment if these proposed amendments are not adopted. If the proposed revisions are not adopted, the intended reduction of the public's exposure to lead in drinking water may not occur.