



SOURCE WATER CHANGES AND TREATMENT MODIFICATIONS

This document provides information regarding:

- Submission requirements for Safe Drinking Water Permit and Temporary Treatment applications related to treatment modifications¹ (utilized for 30 or more consecutive days) and new sources of supply.
- Requirements that may be contained in approvals issued for proposed treatment modifications and new sources of supply.
- Steps that should be taken for existing emergency sources, extensions of distribution systems and water system mergers.

Lead and Copper Corrosion Control pH/Alkalinity Adjustment and/or Inhibitor	
Application requirements (in addition to standard requirements)	Corrosion Control Treatment Recommendation
	<p>Submit an optimal corrosion control treatment (CCT) recommendation prepared in accordance with 40 CFR 141.82(a) et seq. if not previously approved. The CCT recommendation must follow EPA's Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems, dated March 2016, and include all applicable forms. Based on the guidance, a CCT desktop or demonstration study may be required.</p> <p><i>Notes:</i> <i>If not currently conducting approved WQP monitoring, initial WQP monitoring will be required to complete the CCT recommendation. In addition, other monitoring (e.g. iron, manganese, chloride, sulfate and aluminum) is required.</i></p> <p><i>Applications received without a CCT recommendation will be returned if the CCT recommendation has not been previously approved.</i></p>
	Plan Submittal
	<p>Submit a Water Quality Parameter Sampling Plan² based on the proposed lead and copper corrosion control treatment.</p> <p>Submit a Lead and Copper Sampling Plan prepared in accordance with Department guidance and Forms BWSE-14, BWSE-15, BWSE-18.² If the Lead and Copper Sampling Plan was previously approved,</p>

Application requirements (cont'd)	a statement indicating there have not been any revisions since the approval may be submitted in lieu of the plan and forms.
	Sampling Results
	All Water Quality Parameter sampling results ³ conducted to complete the CCT recommendation must be submitted.
	Consecutive Water Systems
Approval conditions	The CCT recommendation must address any potential impacts to consecutive water systems that are served.
	If the consecutive water system is not conducting approved WQP monitoring for lead and copper, WQP samples will be required from that consecutive system at the interconnection and in the distribution system (DS) and results submitted to the Department ³ . The number of DS samples required is based on the consecutive water system's population in accordance with 40 CFR 141.87(a)(2).
	Documentation that all consecutive water systems have been notified of the proposed changes in CCT so that the potential impacts can be addressed in advance.
	Monitoring – upon commencement of utilization of Corrosion Control Treatment
	Monitor ³ for pH, alkalinity, orthophosphate (if utilized) and silica (if utilized) at the POE biweekly, and twice each 6-month monitoring period at the approved DS sites while CCT is in use. Report results monthly.
	If the water system delivers water to a consecutive water system that is not conducting approved monitoring for applicable WQPs, WQP samples must also be collected by the consecutive system at the interconnection biweekly and in the DS of the consecutive system twice every 6-month monitoring period. The number of DS samples required is based on the consecutive system's population in accordance with 40CFR 141.87(a)(2). ¹
	Written Notification
	Written notification to the Department one week prior to utilizing approved CCT and within one week of discontinuing use of the approved CCT (if treatment is temporary). ⁴

Approval Conditions (cont'd)	Miscellaneous
	<p>Once the new CCT is in use, if pH, alkalinity, orthophosphate, or silica levels occur at the POE or in the DS the water system (and any consecutive systems) may be placed on standard lead and copper sampling.</p> <p>Additional WQP monitoring may be required to optimize treatment.</p> <p>If the CCT changes the sampling requirements of any consecutive system (e.g. addition of orthophosphate), a Water Quality Parameter Sampling Plan prepared in accordance with Department guidance must also be submitted by the consecutive system. The water system adding the CCT must notify all consecutive system(s) of this requirement.</p>
Corrosion control (other than for lead and copper) and other treatment changes that could impact corrosivity	
Application requirements (in addition to standard requirements)	Sampling Results
	<p>Provide results from two samples³ collected at least 2 weeks apart for pH, alkalinity, orthophosphate (if utilized) and silica (if utilized) at the Point of Entry (POE). Report dosage of orthophosphate/silica if utilized.</p>
	Consecutive Water Systems
	<p>Documentation that all consecutive water systems have been notified of the proposed changes in CCT so that the potential impacts can be addressed in advance.</p>
Approval conditions	Monitoring - upon commencement of utilization of new treatment/inhibitor
	<p>Monitor³ for pH, alkalinity, orthophosphate (if utilized) and silica (if utilized) at the POE biweekly during the term of the approval, or for a period of 6 months, whichever is shorter. Report results monthly.</p>
	Plan Submittal
	<p>Submission of a Lead and Copper Sampling Plan prepared in accordance with Department guidance and Forms BWSE-14, BWSE-15, BWSE-18.² If the Lead and Copper Sampling Plan was previously approved, a statement indicating there have not been any revisions since the approval may be submitted in lieu of the plan and forms.</p>

Approval conditions (cont'd)	Written Notification
	Written notification to the Department one week prior to utilizing approved CCT and within one week of discontinuing use of the approved CCT (if treatment is temporary). ⁴
	Miscellaneous
	Once the new treatment is in use, if pH, alkalinity, orthophosphate, or silica levels are outside the normal operating levels at the POE, WQP monitoring within the DS may be required; any consecutive water systems may be required to begin WQP monitoring at the interconnection and in the DS; and, the water system (and any consecutive water systems) may be placed on standard lead and copper sampling.
New Sources of Supply (wells, surface water, interconnections) <i>Requirements and Conditions may be waived if the water quality parameters and treatment proposed for the new source are similar to existing source water quality/treatment</i>	
Application requirements (in addition to standard requirements)	Sampling Results
	Submit results from two samples ³ collected at least two weeks apart for pH, alkalinity, orthophosphate (if utilized) and silica (if utilized) at the Point of Entry (POE) representing existing water quality. Report dosage of orthophosphate/silica (if utilized).
	Submit results from two samples ³ collected on different days at least two weeks apart for pH, alkalinity, orthophosphate (if utilized) and silica (if utilized) in the DS at sites in accordance with 40 CFR 141.87(a)(2). Sites to be sampled are the DS sites identified in the approved WQP sampling plan or at representative preliminary distribution sites that have been approved by the Department.
	Consecutive Water Systems
	Documentation that all consecutive water systems have been notified of the proposed changes in water quality so that the potential impacts can be addressed in advance.
	If the consecutive water system is not conducting approved WQP monitoring for lead and copper, WQP samples must be collected at the interconnection and in the DS of the consecutive system and results submitted to the Department. The number of DS samples required is based on the consecutive system's population in accordance with 40 CFR 141.87(a)(2). The water system adding the new source must notify all consecutive water system(s) of this requirement.

Application Requirements (cont'd)	Plan Submittal
	<p>Submission of a Lead and Copper Sampling Plan prepared in accordance with Department guidance and Forms BWSE-14, BWSE-15, BWSE-18.² If the Lead and Copper Sampling Plan was previously approved, a statement indicating there have not been any revisions since the approval may be submitted in lieu of the plan and forms.</p> <p>Submission of a Water Quality Parameter Sampling Plan ² prepared in accordance with Department guidance if the new source will have CCT.</p>
Approval Conditions	Monitoring
	<p>Monitor for pH, alkalinity, orthophosphate (if utilized) and silica (if utilized) at the POE biweekly, and twice during the initial 6-month monitoring period at the approved DS sites. Report results monthly.</p> <p>If the water system sells to another water system that is not conducting approved WQP monitoring for lead and copper, WQP samples must also be collected at the interconnection and in the DS of the consecutive system. The number of DS samples required is based on the consecutive water system's population in accordance with 40CFR 141.87(a)(2). The water system adding the new source must notify all consecutive water system(s) of this requirement.</p>
	Written Notification
	<p>Written notification to the Department one week prior to utilizing the new source.⁴</p>
	Miscellaneous
<p>Once the new source is in use, if pH, alkalinity, orthophosphate, or silica levels are outside the normal operating levels at the POE or in the DS, the water system (and any consecutive systems) may be placed on standard lead and copper monitoring.</p> <p>Additional WQP monitoring may be required to optimize treatment.</p>	

Existing approved emergency sources

While an application is not required to be submitted to the State, each water system must evaluate their emergency sources to determine if differences in water quality and/or treatment could impact water corrosivity if the source is utilized long term. If so, steps must be taken to minimize these impacts in advance of the need to utilize the emergency source. This may include treatment modifications.

If an emergency source is put into use that may result in additional corrosivity, public outreach should be considered to educate customers of ways to reduce lead and copper exposure.

For water systems with CCT or purchasing water treated with CCT, in the event an emergency source is used, WQP monitoring will be required at the POE or interconnection biweekly immediately commencing on day 31 of using the emergency source.

If there are changes in water quality outside the normal operating levels in the DS, lead and copper monitoring may be required if the water system is on reduced monitoring.

The applicable actions and plans detailed above must be included in the water system's Emergency Response Plan, Lead and Copper Sampling Plan, and WQP Sampling Plan.

Extension of Distribution System or Consolidation of More Than One Public Water System

Evaluate and make any necessary revisions to the Lead and Copper and Water Quality Parameter (if applicable) Sampling Plan(s) to reflect changes in the distribution system.

¹ In addition to corrosion control treatment changes, these same requirements and approval conditions may also apply to other forms of treatment modifications related to disinfection, coagulation, water softening and filtration which can also affect the corrosivity of water in the distribution system.

² The Department is requiring public community water systems to prepare and submit to the Department for approval: a Lead and Copper Sampling Plan; Forms BWSE-14, 15 and 18; and a Water Quality Parameter Sampling Plan (if the water system is utilizing corrosion control, including pH adjustment, for lead and copper). Guidance, templates and the forms are available at <http://www.nj.gov/dep/watersupply/dwc-lead-public.html>.

³ All water quality parameters are to be collected by a Certified Laboratory or "Approved Person" and submitted to the Water Supply mailbox using the Water Sampling Analysis Excel template (BWSE-PA-101) found at <http://www.nj.gov/dep/watersupply/dws-sampreg.html> under Construction Permits.

⁴ Written documentation must include email correspondence sent to watersupply@dep.nj.gov

Note that it is possible that further information and/or action may be necessary as both the Federal and State Safe Drinking Water programs continue to assess the implementation of the Federal Lead and Copper Rule to ensure the continued protection of public health. Therefore, this document may be modified as a result of future developments.