



Ohio Administrative Code

Rule 3745-81-81 Control of lead and copper; applicability of corrosion control treatment steps to small, medium, and large water systems.

Effective: May 1, 2018

(A) Public water systems shall complete the applicable corrosion control treatment requirements described in rule 3745-81-82 of the Administrative Code by the deadlines established in this rule.

(1) A large system (serving more than fifty thousand persons) shall complete the corrosion control treatment steps specified in paragraph (D) of this rule, unless otherwise determined by the director.

(2) A small system (serving less than or equal to three thousand three hundred persons) and a medium system (serving more than three thousand three hundred and less than or equal to fifty thousand persons) shall complete the corrosion control treatment steps specified in paragraph (E) of this rule, unless otherwise determined by the director.

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

(1) A small or medium water system is deemed to have optimized corrosion control if the lead or copper action level has not been exceeded.

(2) Any public water system may be deemed by the director to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the director that the system has conducted activities equivalent to the corrosion control steps applicable to such system under this rule. If the director makes this determination, the director shall provide the system with written notice explaining the basis for the director's decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with paragraph (F) of rule 3745-81-82 of the



Administrative Code. Water systems deemed to have optimized corrosion control under this paragraph shall operate in compliance with the designated optimal water quality control parameters in accordance with paragraph (G) of rule 3745-81-82 of the Administrative Code and continue to conduct lead and copper tap and water quality parameter sampling in accordance with paragraph (D)(3) of rule 3745-81-86 and paragraph (D) of rule 3745-81-87 of the Administrative Code, respectively. A system shall provide the director with the following information in order to support a determination under this paragraph:

- (a) The results of all test samples collected for each of the water quality parameters in paragraph (C)(3) of rule 3745-81-82 of the Administrative Code.
 - (b) A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in paragraph (C)(1) of rule 3745-81-82 of the Administrative Code, the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment.
 - (c) A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps.
 - (d) The results of tap water monitoring with samples collected in accordance with rule 3745-81-86 of the Administrative Code at least once every six months for one year after corrosion control has been installed.
- (3) Any water system is deemed to have optimized corrosion control if, for two consecutive six-month monitoring periods, the difference between the ninetieth percentile tap water level computed under paragraph (C)(3) of rule 3745-81-80 of the Administrative Code and the highest source water at the entry point to the distribution system lead concentration is less than the practical quantitation level (PQL) of 0.005 milligrams per liter. Monitoring shall be conducted in accordance with rules 3745-81-86 and 3745-81-88 of the Administrative Code.
- (a) Those systems whose highest source water at the entry point to the distribution system lead level is below the method detection limit (MDL) may also be deemed to have optimized corrosion control under this paragraph if the ninetieth percentile tap water lead level is less than or equal to the PQL of 0.005 milligram per liter for two consecutive six-month monitoring periods.



(b) Any water system deemed to have optimized corrosion control in accordance with this paragraph shall continue monitoring for lead and copper at the tap in accordance with paragraph (C) and paragraph (D) of rule 3745-81-86 of the Administrative Code.

(c) Any water system deemed to have optimized corrosion control in accordance with this paragraph shall submit water quality information to the director with plan submittal, as required, for any change or modification in treatment or the addition of a new source in accordance with paragraph (A)(3) of rule 3745-81-90 of the Administrative Code. The director shall review and approve the addition of a new source or substantial change in treatment before it is implemented by the water system. The director may require any such water system to conduct additional monitoring, perform corrosion control studies or to take other action the director deems appropriate to ensure that minimal levels of corrosion in the distribution system are maintained.

(d) As of the effective date of this rule, a system is not deemed to have optimized corrosion control under this paragraph, and shall implement corrosion control treatment pursuant to paragraph (B)(3)(e) of this rule unless the system meets the lead and copper action level.

(e) Any system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under this paragraph shall implement corrosion control treatment in accordance with the deadlines in paragraph (E) of this rule. Any such large system shall adhere to the schedule specified in that paragraph for medium systems, with the time periods for completing each step being triggered by the date the system is no longer deemed to have optimized corrosion control under this paragraph.

(C) The requirement for any water system to implement corrosion control treatment steps in accordance with paragraph (D) of this rule for large systems and paragraph (E) of this rule for small or medium systems, including systems previously deemed to have optimized corrosion control under paragraph (B) of this rule, is triggered whenever monitoring exceeds the lead or copper action level.

(D) Treatment steps for large systems. Except as provided in paragraphs (B)(2) and (B)(3) of this rule, large systems shall complete the following corrosion control treatment steps (described in the



referenced portions of rules 3745-81-82, 3745-81-86, and 3745-81-87 of the Administrative Code):

(1) Step one: The system shall conduct initial monitoring (in accordance with paragraph (D)(1) of rule 3745-81-86 and paragraph (B) of rule 3745-81-87 of the Administrative Code) during two consecutive six-month monitoring periods.

(2) Step two: The system shall complete corrosion control studies and submit plans for approval for optimal corrosion control treatment (in accordance with paragraph (C) of rule 3745-81-82 of the Administrative Code) within eighteen months after the director requires that such studies be conducted. The system shall submit interim status reports of action taken to complete the studies once every six months from the initiation of the corrosion control studies.

(3) Step three: The director shall complete the review and approval of optimal corrosion control treatment plans (in accordance with paragraph (D) of rule 3745-81-82 of the Administrative Code).

(4) Step four: The system shall install optimal corrosion control treatment (in accordance with paragraph (E) of rule 3745-81-82 of the Administrative Code) within six months after the director approves plans unless an alternative schedule is approved by the director.

(5) Step five: The system shall complete follow-up monitoring after installation of treatment (in accordance with paragraph (D)(2) of rule 3745-81-86 of the Administrative Code and paragraph (C) of rule 3745-81-87 of the Administrative Code).

(6) Step six: The director shall review installation of treatment and specify optimal water quality parameters (in accordance with paragraph (F) of rule 3745-81-82 of the Administrative Code) after completion of step five.

(7) Step seven: The system shall operate in compliance with the director-specified optimal water quality control parameters (in accordance with paragraph (G) of rule 3745-81-82 of the Administrative Code) and continue to conduct tap sampling (in accordance with paragraph (D)(3) of rule 3745-81-86 of the Administrative Code and paragraph (D) of rule 3745-81-87 of the Administrative Code).



(E) Treatment steps and deadlines for small and medium systems. Except as provided in paragraph (B) of this rule, small and medium systems shall complete the following corrosion control treatment steps (described in the referenced portions of rules 3745-81-82, 3745-81-86, and 3745-81-87 of the Administrative Code) within the indicated time periods:

(1) Step one: The system shall conduct initial tap monitoring (in accordance with paragraph (D)(1) of rule 3745-81-86 of the Administrative Code and paragraph (B) of rule 3745-81-87 of the Administrative Code) until the system either exceeds the lead or copper action level or becomes eligible for reduced monitoring under paragraph (D)(4) of rule 3745-81-86 of the Administrative Code, as follows:

(a) A small system exceeding the lead or copper action level shall recommend optimal corrosion control treatment (in accordance with paragraph (A) of rule 3745-81-82 of the Administrative Code), and submit plans if required by Chapter 3745-91 of the Administrative Code, within six months after the end of the monitoring period during which it exceeds one of the action levels.

(b) A medium system exceeding the lead or copper action level shall proceed to step two, paragraph (E)(2) of this rule, requiring corrosion control studies (in accordance with paragraph (B) of rule 3745-81-82 of the Administrative Code).

(2) Step two: Within twelve months after the end of the monitoring period during which a small system exceeds the lead or copper action level, the director may require the system to perform corrosion control studies (in accordance with paragraph (B) of rule 3745-81-82 of the Administrative Code). If the director does not require the small system to perform such studies, the director shall complete the review and approval of optimal corrosion control treatment plans (in accordance with paragraph (D) of rule 3745-81-82 of the Administrative Code) within twelve months after the end of the monitoring period during which the system exceeds the lead or copper action level.

Any medium system exceeding the lead or copper action level is required to perform corrosion control studies (in accordance with paragraph (B) of rule 3745-81-82 of the Administrative Code).

(3) Step three: When the director requires a system to perform corrosion control studies under step two, the system shall complete the studies and submit approvable plans for optimum corrosion



control treatment (in accordance with paragraph (C) of rule 3745-81-82 of the Administrative Code) within eighteen months after the director requires that such studies be conducted. The system shall submit interim status reports of action taken to complete the studies once every six months from the initiation of the corrosion control studies.

(4) Step four: If the system has performed corrosion control studies under step two, the director shall complete the review and approval of optimal corrosion control treatment plans (in accordance with paragraph (D) of rule 3745-81-82 of the Administrative Code) after completion of step three.

(5) Step five: The system shall install optimal corrosion control treatment (in accordance with paragraph (E) of rule 3745-81-82 of the Administrative Code) within six months after the director approves plans unless an alternative schedule is approved by the director.

(6) Step six: The system shall complete follow-up monitoring after installation of treatment (in accordance with paragraphs (D)(2) of rule 3745-81-86 and (C) of rule 3745-81-87 of the Administrative Code).

(7) Step seven: The director shall review the system's installation of treatment and specify optimal water quality control parameters (in accordance with paragraph (F) of rule 3745-81-82 of the Administrative Code) after completion of step six.

(8) Step eight: The system shall operate in compliance with the director-specified optimal water quality control parameters (in accordance with paragraph (G) of rule 3745-81-82 of the Administrative Code) and continue to conduct tap sampling (in accordance with paragraphs (D)(3) of rule 3745-81-86 and (D) of rule 3745-81-87 of the Administrative Code).

(F) New or updated treatment recommendations, studies or plans.

(1) The owner or operator of a water system shall provide a new or update an existing corrosion control treatment recommendation, study or submit plans in accordance with paragraph (A) of this rule if any of the following occur:

(a) The system changes its water source or adds a new water source. The owner or operator shall



notify the director prior to changes to the water system source and complete the recommendation, study or submit plans within eighteen months.

(b) The system makes a substantial change in water treatment. The owner or operator shall notify the director prior to changes in the water system treatment and complete the recommendation, study or submit plans within eighteen months.

(c) The system operates out of previously-approved acceptable ranges for lead, copper, pH or other corrosion control indicators, as determined by the director. The owner or operator of the water system shall complete the recommendation, study or submit plans within eighteen months after the system operates out of acceptable ranges.

If the system exceeds the lead or copper action level while operating out of previously-approved acceptable ranges for pH or other corrosion control indicators, the owner or operator of the water system shall review the corrosion control study. If the water quality has not changed, the owner or operator of the water system shall submit an updated treatment recommendation. If the water quality has changed, the owner or operator of the water system shall complete a new study. The updated treatment recommendation or new study shall be completed within eighteen months after the system operates out of acceptable ranges.

(d) Any other event determined by the director to have the potential to impact the water quality or corrosiveness of water in the system. The owner or operator of the water system shall complete the recommendation, study or submit plans within eighteen months from the date the director provides written notice to the system of such event.

(2) An owner or operator of a system required to provide a treatment recommendation, complete a corrosion control treatment study or submit a plan in accordance with paragraph (F)(1) of this rule, shall notify any consecutive or wholesale system of their new or updated treatment recommendation, corrosion control treatment study or plan.

(3) An owner or operator of a system required to provide a treatment recommendation, complete a corrosion control treatment study or submit a plan in accordance with paragraph (F)(1) of this rule, shall complete the recommendation, study or submit the plan to the director for approval even if



sampling results conducted subsequent to the initiation of the study and plan do not exceed the lead action level.

(G) The director may waive the requirement to conduct a new or updated corrosion control recommendation, study or submit plans as required in paragraph (F) of this rule upon demonstration by the system that items under paragraphs (F)(1)(a) to (F)(1)(c) of this rule will not have the potential to or will not impact the water quality or corrosiveness of the system.