

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

- (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 it is deemed to have optimized corrosion control under paragraph (B)(2) or (B)(3) of this rule.
 - (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 it is deemed to have optimized corrosion control under paragraph (B)(1), (B)(2), or (B)(3) of this rule.
- (B) A public water system is deemed to have optimized corrosion control and is not 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 during each of two consecutive six-month monitoring periods conducted in accordance with rule 3745-81-86 of the Administrative Code the system does not exceed the lead or copper action levels.
 - (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 it 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 no less frequently than once every three calendar years using the reduced number of sites specified in paragraph (C) of rule 3745-81-86 of the Administrative Code and collecting the samples at times and locations specified in paragraph (D)(4)(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 notify the director in writing of any change or modification in treatment or the addition of a new source in accordance with paragraph (A)(3) of rule 3745-81-90. 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 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 it meets the 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) Any small or medium water system that is required to complete the corrosion control steps due to exceeding the lead or copper action level may cease completing the treatment steps whenever both action levels are no longer exceeded by the public water system during each of two consecutive monitoring periods conducted pursuant to rule 3745-81-86 of the Administrative Code and the system submits the results to the director. If any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety and shall implement corrosion control treatment per corrosion control treatment plans that have been approved by the director in accordance with Chapter 3745-91 of the Administrative Code. The second exceedance does not have to be the same chemical (lead or copper) as the first exceedance. The director may require a system to repeat treatment steps previously completed where the director determines that this is necessary to implement properly the treatment requirements of this rule. The director shall notify the system in writing of such a determination and explain the basis for the decision. The requirement for any small or medium water system to implement corrosion control treatment steps in accordance with paragraph (E) of this rule (including systems deemed to have optimized corrosion control under paragraph (B)(1) 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 (in accordance with paragraph (C) of rule 3745-81-82 of the Administrative Code).
 - (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).
 - (5) Step five: The system shall complete follow-up monitoring (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).
 - (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.
 - (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 therefor 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 twenty-four 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.
- (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) within six months 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 twenty-four months after the director approves plans therefor.
- (6) Step six: The system shall complete follow-up monitoring (in accordance with paragraphs (D)(2) of rule 3745-81-86 and (C) of rule 3745-81-87 of the Administrative Code) within thirty-six months after the director approves optimal corrosion control treatment plans.
- (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) within six months 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).

Effective: 02/23/2015

R.C. 106.03 review dates: 11/17/2014 and 11/17/2019

Promulgated Under: 106.03

Statutory Authority: 6109.04

Rule Amplifies: 6109.04

Prior Effective Dates: 04/01/96, 10/17/03, 07/24/09