

3745-81-88 **Control of lead and copper - monitoring requirements for lead and copper in source water at the entry point to the distribution system.**

(A) Sampling point locations, collection methods, and number of samples.

(1) A public water system that exceeds the lead or copper action level on the basis of tap water samples collected in accordance with rule 3745-81-86 of the Administrative Code shall monitor for lead and copper in source water at the entry point to the distribution system in accordance with the following requirements regarding sampling point locations, collection methods, and number of samples:

- (a) Ground water systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The public water system shall take one sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
- (b) 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 public water 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 water sources.

- (c) If a public water system draws water from more than one source and the sources are combined before distribution, the public water system shall 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.
- (d) The director may reduce the total number of samples which must be analyzed by allowing the use of compositing. Compositing of samples shall be done by certified laboratory personnel. Composite samples from a maximum of five samples are allowed, provided that if the lead concentration in the composite sample is greater than or equal to 0.001 milligram per liter or the copper concentration is greater than or equal to 0.160 milligram per liter, then either:

- (i) A follow-up sample shall be taken and analyzed within fourteen days at each sampling point included in the composite; or
 - (ii) If duplicates of or sufficient quantities from the original samples from each sampling point used in the composite are available, the public water system may use these instead of resampling.
- (2) Where the results of monitoring indicate an exceedance of maximum permissible levels in the source water at the entry point to the distribution system established under paragraph (B)(4) of rule 3745-81-83 of the Administrative Code, the director may require that the public water system monitor with one additional sample as soon as possible after the initial monitoring (but not to exceed two weeks) at the same sampling point. If a director-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation monitoring shall be averaged in determining compliance with the director-specified maximum permissible levels. Any sample value below the method detection limit (MDL) shall be considered to be zero. Any lead value above the MDL but below the practical quantitation level (PQL) of 0.005 milligram per liter shall be considered as the measured value. Any copper value above the MDL but below the PQL of 0.050 milligram per liter shall be considered as the measured value.
- (B) Monitoring frequency after public water system exceeds tap water action level. Any system which exceeds the lead or copper action level at the tap shall monitor one sample from each source water at the entry point to the distribution system no later than six months after the end of the monitoring period during which the lead or copper action level was exceeded. For monitoring periods that are annual or less frequent, the end of the monitoring period is September thirtieth of the calendar year in which the sampling occurs, or if the director established an alternate period, the last day of that period.
- (C) Monitoring frequency after installation of source water treatment. Any public water system which installs source water treatment pursuant to paragraph (A)(3) of rule 3745-81-83 of the Administrative Code shall collect an additional sample from each source water at the entry point to the distribution system during each of two consecutive six-month monitoring periods by the deadline specified in paragraph (A)(4) of rule 3745-81-83 of the Administrative Code.
- (D) Monitoring frequency after the director specifies maximum permissible lead and copper levels in source water at entry points to the distribution system or determines that source water treatment is not needed.

- (1) A public water system shall monitor at the frequency specified in paragraph (D)(1)(a) or (D)(1)(b) of this rule in cases where the director specifies maximum permissible source water at the entry point to the distribution system levels under paragraph (B)(4) of rule 3745-81-83 of the Administrative Code or determines that the public water system is not required to install source water treatment under paragraph (B)(2) of rule 3745-81-83 of the Administrative Code.
 - (a) A public water system using only ground water shall monitor once during the three-year compliance period (as that term is defined in rule 3745-81-01 of the Administrative Code) in effect when the applicable director's determination under paragraph (D)(1) of this rule is made. Such public water systems shall monitor once during each subsequent compliance period. Triennial samples shall be collected every third calendar year.
 - (b) A public water system using surface water (or a combination of surface water and ground water) shall monitor once during each year, the first annual monitoring period to begin during the year in which the applicable director's determination is made under paragraph (D)(1) of this rule.
- (2) A public water system is not required to conduct source water at the entry point to the distribution system sampling for lead and/or copper if the system does not exceed the action level for the specific contaminant in tap water samples at any time during the sampling period applicable to the system under paragraph (D)(1)(a) or (D)(1)(b) of this rule.

(E) Reduced monitoring frequency.

- (1) A public water system using only ground water may reduce the monitoring frequency for lead and copper in source water at the entry point to the distribution system once during each nine-year compliance cycle (as that term is defined in rule 3745-81-01 of the Administrative Code) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:
 - (a) The public water system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the director in paragraph (B)(4) of rule 3745-81-83 of the Administrative Code during at least three consecutive compliance periods under paragraph (D)(1) of this rule; or
 - (b) The director has determined that source water treatment is not needed and the system demonstrates that, during at least three

consecutive compliance periods in which sampling was conducted under paragraph (D)(1) of this rule, the concentration of lead in source water at the entry point to the distribution system was less than or equal to 0.005 milligram per liter and the concentration of copper was less than or equal to 0.65 milligram per liter.

- (2) A public water system using surface water (or a combination of surface water and ground water) may reduce the monitoring frequency in paragraph (D)(1) of this rule to once during each nine-year compliance cycle (as that term is defined in rule 3745-81-01 of the Administrative Code) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:
 - (a) The public water system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the director under paragraph (B)(4) of rule 3745-81-83 for at least three consecutive years; or
 - (b) The director has determined that source water treatment is not needed and the public water system demonstrates that, during at least three consecutive years, the concentration of lead in source water at the entry point to the distribution system was less than or equal to 0.005 milligram per liter and the concentration of copper at the entry point was less than or equal to 0.65 milligram per liter.
- (3) A public 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 director under paragraph (A)(5) of rule 3745-81-83 of the Administrative Code.

Effective: 07/24/2009

R.C. 119.032 review dates: 07/24/2014 and 04/24/2019

Promulgated Under: 119.03

Statutory Authority: 6109.04

Rule Amplifies: 6109.04

Prior Effective Dates: 09/13/93, 10/17/03