3745-9-08 **Well disinfection.**

(A) A public water system well shall be disinfected after completion of construction, installation, development, alteration or repair, or any other actvity or event that might lead to the contamination of the water, and before supplying water for human consumption.

(B) The standard AWWA C654, "Disinfection of Wells," shall be used as a guide except for the topics presented in sections 4.2, 4.5 and 5, that are otherwise specified in paragraphs (C), (D) and (E) of this rule.

(C) The following disinfection procedures shall apply:

(1) Disinfectant shall be slowly poured into the well by wetting the inside casing circumference, drop pipe and electrical cable.

(2) Disinfectant concentration in the water column shall be initially at least one hundred milligrams per liter chlorine. A public water system may use an alternative disinfectant concentration following consultation with the office staff of the district in which the public water system is located, provided the disinfection procedure will ensure complete disinfection and includes the following:

(a) A mechanical cleaning of the well casing and screen to remove loose debris, sediment, mineral encrustation and bacterial slime before disinfection.

(b) Monitoring of the pH and chlorine residual.

(c) Maintaining at least fifty milligrams per liter free chlorine residual throughout the water column.

(3) Water in the well shall be agitated or surged to ensure even dispersal of the disinfectant throughout the entire water column.

(4) Disinfectant contact time shall be at least eight hours.

(5) Disinfectant shall be thoroughly flushed or dissipated from the well before supplying water for human consumption.

(6) When calcium hypochlorite is used for disinfection, the tablets or granules shall be completely dissolved in water prior to placement into the well. Sodium

hypochlorite solution shall be used within the manufacturer's posted expiration date. Sodium hypochlorite solution with fragrance additives shall not be used for disinfection.

(7) A buffering chemical that has standard ANSI/NSF 60 certification may be used to enhance disinfection efficacy. The director may require submission of chemical disinfection procedures with specifications for the method, equipment, chemicals and testing for residual chemicals.

(8) Disinfectant shall have ANSI/NSF 60 certification.

(D) After disinfection, a well shall be flushed for a minimum of fifteen minutes and total chlorine undetectable before sampling for total coliform. The well shall not be placed into service until two consecutive samples collected from the well at least thirty minutes apart are total coliform-negative. Microbiological and total chlorine samples shall be analyzed in accordance with Chapter 3745-89 and rule 3745-81-27 of the Administrative Code.

(E) If a sample is reported positive for total coliform, a system shall do one of the following:

(1) Continue to flush the well and collect total coliform samples to achieve compliance with paragraph (D) of this rule.

(2) Repeat the well chlorination procedures as described in paragraph (C) of this rule if necessary to achieve compliance with paragraph (D) of this rule.

(F) A system with a well unable to meet paragraph (D) of this rule after the second chlorination must consult with the director for corrective action, which may include compliance with paragraph (B) of rule 3745-81-42 of the Administrative Code.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see paragraph (AA) of rule 3745-9-01 of the Administrative Code titled "Incorporation by reference."]

Effective: 9/1/2022

Five Year Review (FYR) Dates: 4/20/2022 and 09/01/2027

CERTIFIED ELECTRONICALLY

Certification

08/16/2022

Date

Promulgated Under: 119.03
Statutory Authority: 6109.04, 6111.42
Rule Amplifies: 6109.04
Prior Effective Dates: 02/15/1975, 05/01/2003, 10/31/2010, 04/19/2012, 06/13/2016