(THIS POLICY DOES NOT HAVE THE FORCE OF LAW)

Disinfection of Finished Water
Storage Facilities & Water Mains

Division: DDAGW
Number: OPR-05-002
Category: Operations – Policy
Status: Final
Issued: January 2, 2008

I. PURPOSE

American Water Works Association (AWWA) Standards for the disinfection of finished water storage facilities and water mains, which are referenced in rule 3745-83-01 of the Ohio Administrative Code (OAC) are explained in this document. The intent of this policy is to achieve consistent application of these standards throughout the state.

II. BACKGROUND

OAC rule 3745-83-01(C) requires the disinfection of finished water storage facilities and water mains by way of AWWA standards C652-02 (2002) and C651-05 (2005). This policy provides further explanation of the standards as indicated in the AWWA Disinfection of Pipelines and Storage Facilities Field Guide, 2006. Additionally, the policy demonstrates the distinction between the two standards.

III. APPLICABLE REGULATIONS

1. Disinfection of finished water storage facilities and water mains – OAC rule 3745-83-01 (C)(5) and (C)(6).
   At least 0.2 mg/L free chlorine or 1 mg/L combined chlorine
3. Maximum residual disinfectant level (MRDL) – OAC 3745-81-10(C).
   4.0 mg/L total chlorine (as Cl₂)

IV. OTHER APPLICABLE REFERENCES

V. POLICY

Note: The AWWA standards referenced in this policy define a “set” of samples as one sample for total coliform bacteria and one sample for chlorine residual analysis. This definition differs from Ohio EPA’s common use of the term with respect to repeat samples for the total coliform rule. To avoid confusion, this document will not use the term; however, please be aware that if you refer to the AWWA standard itself you will find reference to the term “set” which should be interpreted in accordance with the AWWA definition.


Disinfection is required following inspecting, painting, cleaning and other activities that might lead to contamination and not just after repairs (Sec.1.1).

Water systems should collect samples (special purpose) for total coliform and chlorine residual. The facility can be placed into service when the chlorine residual is within acceptable limits and one total coliform sample is negative (Sec.5.1).

If the initial sample is total coliform positive, repeat samples should be taken until two consecutive samples are total coliform negative and the chlorine residual is within acceptable limits. The storage facility may need to be disinfected again prior to collecting repeat total coliform samples (Sec.5.1).

2. Water Mains (AWWA Standard C651-05, 2005)

New Water Mains

Disinfection is required before the new main is placed into service (Sec.1.1).

At least one sample for total coliform and chlorine residual is required to be collected from every 1200 feet of new main. Additionally, one sample for total coliform and chlorine residual is required to be collected from the end of the line and from each branch (Sec.5.1).

New mains can be put into service after two consecutive samples (special purpose) for total coliform taken at least 24 hours apart are total coliform negative and the chlorine residual is within acceptable limits (Sec.5.1).

Existing Water Mains

Disinfection is required after repairs, inspection or other activities that might lead to contamination (Sec.1.1), unless a minimum pressure of twenty pounds per square inch gauge at ground level is maintained at all points in the distribution system. Please refer to Ohio EPA Policy for
Evaluating and Responding to Water Distribution Systems and Subsystems that have Depressurized (2008) for instructions on responding to a depressurization event.

IV. HISTORY

The Division of Drinking and Ground Waters first issued this document on July 18, 2007. The policy was revised on January 2, 2008.