

## **SECTION 02255 DISINFECTION**

### **A. General**

All mains shall be disinfected in accordance with AWWA C651 "Standard for Disinfecting Water Mains" supplemented by the following procedures:

As the pipe is placed in the ground, care shall be taken to keep dirt and debris out of the pipe. After the pipe has been installed the main is to be filled very slowly with water. At a point near the end of each section of the pipeline, a 1" copper sample tap shall be installed for taking water samples. (see Figure 2 of this Specification). Once the pipe work is complete, a solution of chlorine to 100 ppm shall be pumped through the pipe. A slow flow of water will carry the chlorine solution to the end of the pipe and discharge through a flushout or hydrant. A residual of 100 ppm shall be obtained and left in the main for a 24-hour period in order to obtain proper disinfection.

At the end of 24 hours the main shall again be sampled. A chlorine residual of at least 50 ppm at that time is required. The main may then be flushed so that all the treated water has been eliminated from the main. (see Figure 3 of this Specification for a temporary flushout installation).

After the main has been flushed, a sample of water shall be taken for bacteriological examination to the Valparaiso City Utilities' laboratory. The laboratory shall test for the presence of the coliform group of organisms by the membrane filter or multiple tube technique. A second water sample shall be taken 24 hours after the first. If both water samples are determined safe by the laboratory supervisor, the main may be placed in service. If the first or second water sample shows contamination or if the chlorine residuals are not adequate, the main shall be reflushed and/or rechlorinated and the above procedure repeated until tests indicate the main has been properly disinfected.

**END OF SECTION**