

GENERAL:

The scope of this document is to provide instruction for the cleaning and disinfecting of underground domestic water lines.

DESIGN GUIDELINES:

1. Cleaning

- 1.1. All domestic potable water systems shall be clean and free of foreign matter and shall be disinfected and tested for bacteriological contamination before the system is put into operation, as required by the State Division of Health and in accordance with AWWA C651 or C652 or the following provisions.
- 1.2. Disinfection shall be performed AFTER leak and pressure tests are completed.
- 1.3. All new water lines shall be cleaned and flushed with a polyfoam pig prior to chlorination and sanitation. Flush the potable water system with clean, potable water until no dirty water appears at the points of outlet.
- 1.4. Pipe cleaning pigs
 - 1.4.1. Pigs shall be constructed from open cell polyurethane foam with, medium density ranging from 5 lbs/cu. ft. to 8 lbs/cu ft.
 - 1.4.2. All pigs used shall be made for hand launching and specifically for the type and size of pipe being installed.
 - 1.4.3. Pigs shall be Product Code B-3 as manufactured by Pipeline Pigging Products Inc., Houston TX, or approved equal.
- 1.5. Fill the system with a water-chlorine solution containing at least 50 parts per million of chlorine, valve off, and allow to stand for at least twenty-four (24) hours; or fill system with a water-chlorine solution containing at least 200 parts per million of chlorine, valve off, and let stand for three (3) hours.
- 1.6. After allowed standing time, flush the system with clean potable water until no chlorine (in excess of public water supply) remains at any point of outlet.
- 1.7. The system shall be thoroughly and completely flushed at maximum water pressure, and if it is shown by a bacteriological examination made by the authority having jurisdiction that contamination still persists in the system, the above procedure shall be repeated.
- 1.8. MU Only: Campus Facilities - Energy Management Steam and Water personnel will draw water samples for bacteriological testing and send sample off for testing. At all other campuses, contractor shall be responsible for taking and sending the sample for testing.
- 1.9. The system owner will be financially responsible for first bacteriological test on a section of line to be tested. The cleaning procedure shall be repeated if biological examination shows evidence of contamination. Costs incurred due to subsequent testing from an initial positive sample shall be paid for by the installers.
- 1.10. Allow forty-eight (48) hours for return of testing before making tie-ins to existing system.

2. Commissioning

- 2.1. System shall be placed in operation only after testing shows the absence of bacteriological contamination and approved by system owner.
- 2.2. MU Only: Only Campus Facilities - Energy Management Steam and Water personnel will be allowed to operate valves on new water systems.

REFERENCES