



GreenvilleWater

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Voted "BEST OF THE BEST" Tasting Water in North America in 2011

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To: Active Bidders, Developers and GW Personnel

The purpose of these procedures is to ensure that pressure tests are conducted safely and effectively, in compliance with Greenville Water standards and specifications. They cover pressure testing of new and existing pressure systems.

PRESSURE TESTS. Pressure and leakage tests must be conducted in accordance with AWWA Standards C600. The duration of the pressure and leakage test must be at least **two (2) hours**. The formulas to be used for calculating the allowable leakage per hour shall be:

$$L = [SD(P)^{1/2}] \div 133,200$$

L-allowable leakage (gal/hr)

S-length of pipeline to be tested (feet)

D-diameter of pipe (inches)

P-average test pressure (psig)

All visible leaks shall be repaired regardless of the amount of leakage.

All ductile iron piping or pipe lines which are designed to operate under a working pressure of or in excess of 40 psi shall be subjected to a hydrostatic pressure test as hereinafter specified. Unless otherwise authorized by the Engineer, pressure tests of underground or otherwise concealed piping shall be made prior to covering the pipe joints.

The test pressure to be applied in each case shall be either (a) 50 psi in excess of the normal maximum working pressure based on the elevation of the highest point in the piping assembly or system under test, or (b) 1.5 times the maximum pressure, whichever is the greatest.

The Contractor shall provide all necessary piping connections between the pipe line or piping and the nearest available source of test water, testing pumping equipment, pressure gauge, and other equipment, materials, and facilities necessary for the required tests. The Owner will furnish all water necessary for filling the lines and for making the required tests.

All pipe, fittings, valves, pipe joints, and other materials which are found to be defective shall be removed immediately and replaced with new and acceptable material, by and at the expense of the Contractor.

Greenville Water Hydrostatic Pressure Testing Procedure:

- Must get approval to pressure test from Greenville Water (GW) representative.
- Set up date and time for inspection of hydrostatic test after approval from GW representative by calling (864) 241-6100.
- Contractor required to flush line thoroughly to ensure no air is trapped in line prior to performing hydrostatic pressure test.
- All testing equipment shall be required to have meter gauge (measuring 1/10 gal) attached to the inlet side of the testing equipment to accurately measure the amount of water used to fill the line back to required test pressure (if required) once test time period (2 hrs) has ended. Also all testing equipment shall be disinfected prior to attaching to any GW water supply. If a barrel or drum is used it must also be disinfected and clean prior to pumping any water into line.
- Contractor can pump up the line prior to GW representative arriving onsite but Contractor will be required to drain line to static pressure for GW to witness the static pressure.
- After GW representative witnesses and records the static pressure the Contractor can pump the line to required test pressure.
- 2 hr wait time starts once required test pressure is achieved.
- After the two hour test duration if no drop in pressure the line is approved. If after the two hour test duration there is a drop in pressure GW representative will calculate the allowable leakage. Contractor will then be required to pump line back to original required test pressure and GW representative will measure the water used to pump line to original test pressure. If that amount is below the allowable leakage, test is approved. If the amount of water used to pump line to original test pressure is above allowable leakage, test is denied and will be required to be retested.