



BST&G Fire District Fire Prevention Bureau

Fire Protection Underground Pipe Inspections and Test Procedures

<i>Project Name:</i>	<i>Date:</i>
<i>Project Address:</i>	
<i>Designers Name:</i>	
<i>Company Name:</i>	
<i>Phone Number:</i>	
<i>Email:</i>	<i>Fax:</i>

Scheduling the inspection

The licensed contractor requesting the inspection must notify the BST&G Fire District Fire Prevention Bureau, **forty- eight (48) hours** in advance of the inspection date. In addition the following agencies shall also be notified for these inspections; Delaware County Code Compliance, Delco Water Company.

The following shall be the required test procedure per **2016 NFPA 24** for All Fire Protection Underground Fire Lines. **The inspections shall be done in order as listed below with no Exceptions.**

Visual Inspection

Offloading of pipe, valves, and other appurtenances – The BST&G Fire District Fire Prevention Bureau shall be present for off loading of all fire suppression line materials. At no time shall materials be dumped or dropped. **2016 NFPA 24 Section 10.8.8.**

Visual Inspection of Underground Installation

1. Inspection of trench, depth of cover, Four Feet (4ft) from top of pipe to finished grade.
2. Confirm, pipe type and class, fittings, clamps and rods.
3. Areas that thrust blocks are to be poured, per attached and or approved drawings
4. Corrosion Resistance application, per **2016 NFPA 13 10.6.2.5 or NFPA 24 10.6.2.5.**
5. Backfill of the trench per **2016 NFPA 13 Section 10.9.1 and/or 2016 NFPA 24 10.9**

Acceptance Testing- The day of the scheduled inspection:

The contractor shall supply all required material to perform all acceptance testing.

Flushing of underground of Pipe(s)

1. Shall be done in accordance with **2016-NFPA-24 Section 10.10.2.1**

- The minimum acceptable flushing line shall be a **four inch (4") flushing line**.
2. The FDC line shall be supplied by a five inch (5") supply line.
 3. A mechanical method of securing the discharge flushing line(s), (like a Hose Monster, tube hitch adapter/Pipe Vice shall be used). **The flushing discharge line shall be mechanically secured.**
 4. A **burlap bag** shall be attached to the end of the flushing line during the acceptance test.

THE ACCEPTANCE TEST SHALL BE CANCELED BY THE INSPECTOR FOR THE FOLLOWING:

1. The flushing line is not acceptable, due to holes, tears or coupling issues.
2. The flushing line is not mechanically secured and creates a dangerous atmosphere for the inspector.

Minimum Flow Rate for flushing

1. A. Hydraulically calculated water demand flow rate of the system, including hose requirements.
- B. Flow to provide a velocity of ten feet per second (10'/sec.) per **2016 NFPA 13, Table 10.10.2.1.3.**
- C. Maximum flow rate available to the system under fire conditions.

2. Flush until the water is clear, and no foreign material is noted in the flushing bag.

Pitot Test

The contractor shall provide all equipment required to take a pitot reading to ensure that all street or isolation valves are open, and the required flow for base of riser is available.

Hydrostatic Test per 2016 NFPA 24 Section 10.10.2.2

All piping and attached appurtenances subject to system working pressure shall be hydrostatically tested at 200 psi for 2 hours. Allowance of pressure loss per **2016 NFPA 24 Section 10.10.2.2.6**

Upon the arrival of the inspector(s) the system shall be pressurized to Two Hundred Pounds (200 #).

1. All valves will be checked to insure they are fully open.
2. The test pump shall be disconnected.

The test will end for the following:

1. The test meets the required two hour (2 Hrs) test.
2. The contractor is not pre-paired to start the test, (Trip charge will be incurred by contractor).
3. The system will not hold pressure.

Capping of Flushed Riser – after the riser has been flushed and hydrostatically tested, a blank cover shall be installed / secured over any/ all open end risers.

Contractor's Material and Test Certificate for Underground Piping

The **2016 NFPA 24 Form 10.10.1** shall be completed.

1. All blanks or check boxes shall be completed.
2. All signatures shall be completed.