

Expectations (continued)

- The work is ready to be inspected.
- If a problem develops where the work is not ready for inspection, call the FMO and cancel the inspection as soon as you are aware there is a problem.

M-F 703-792-6360

**Weekends- 703-792-6813 and ask for
the Duty Fire Marshal**

Inspection Categories

- There are seven categories of inspections:
 - Underground Fire Main
 - Fire Alarm
 - Sprinkler
 - Hood System
 - Fire Lane
 - Stocking
 - Pre-occupancy

Underground Fire Main (UGM) inspections available

- Visual (59)
- Hydrostatic (60)
- Flush (61)
- Final (82)



(59) UGM visual

- A visual inspection of the piping, connections, thrust blocks, threaded rods, and/or mega lug connectors from the street water valve to the base of the flange for the connection to piping of the automatic sprinkler and/or standpipe system.

UGM visual

- Must be installed per the approved plan.
- PWC Design and Construction Standards require a minimum of 42" of cover over an underground fire main.

(60) UGM hydrostatic test/inspection

- A 200 P.S.I. or 50 pounds over static water pressure, whichever is greater, hydrostatic test for a two (2) hour period of UGM components from the street water valve to the base of the flange for the connection to where the automatic sprinkler and/or standpipe system will be connected.

UGM hydrostatic test/inspection

- Gauges used in performing acceptance tests on fire suppression systems witnessed by the Fire Marshal's Office must meet the following criteria:

UGM hydrostatic test/inspection

- The gauge shall be appropriate for the type of test; i.e., air gauge for an air pressure test, a water gauge for a hydrostatic test.
- Air gauges shall have increment markings of two pounds or less. Water gauges must have increment marking of ten pounds or less.

UGM hydrostatic test/inspection

- The gauge shall be capable of registering pressures above the minimum pressure required during the test. (0 PSI to 300 PSI)
- Gauges must be marked as accepted by UL and/or FM testing laboratories.

UGM hydrostatic test/inspection

- The test gauge must “zero” out at the end of the test period or the inspection will be rejected.

(61) UGM flush

- A flush of the UGM piping between the street water valve and the base of the automatic sprinkler and/or standpipe system flange.
- **This test and inspection is required for all sprinkler system water supplies. (NFPA 13, 13R, and 13D)**
- Where there is not a separate fire protection permit number the inspection request is called in on the sprinkler fire protection permit number.

(61) UGM flush

- Minimum 4" diameter hose used for discharge unless the piping being flushed is less than 4" in diameter.
- Must be done in a safe manner, I.E. the hose used for flushing must be secured in a proper manner to prevent it from moving.

UGM inspections/tests

- The above tests/inspections are done in accordance with NFPA 24 (1995), Private Fire Service Mains and Their Appurtenances.
- The tests/inspections can be done on separate days or on the same day provided that they are performed in the proper sequence that is visual, hydrostatic, and flush.

(82) UGM final

- A review of the UGM test and inspection records to assure that all the required system tests/inspections on the underground fire main are code compliant and have been approved.

Common Failures

- Inadequate depth of cover.
- Approved plans not on site.
- Not installed per approved plan.
- Inability to hold test pressure.
- Inadequate flow to flush line.
- Improper restraint of piping.

Fire Alarm Inspections available

- Fire Alarm (73)
- Fire Alarm Battery Test (74)
- Fire Alarm Final (81)

(73) Fire Alarm Test

- A test/inspection of all fire alarm system components, including all manual and automatic activation/initiation devices, visual, and audible warning devices.
- This is a **100% test** of all installed devices according to the manufacturer's recommended method.

(73) Fire Alarm Test

- The system should be pre-tested by the installer PRIOR to calling in for the fire alarm inspection.
- Device addressing and failure to function should not be found during the FMO inspection.

(73) Fire Alarm Test

- Do not have the system in “test” mode without instruction to do so by the inspector.
- The fire alarm control panel must be clear of “trouble” before the test can be conducted.

(74) Fire Alarm Battery Test

- A test of the ability of the fire alarm system to sound all visual and audible horns for five (5) minutes after the system has been on battery power for a twenty-four (24) hour period.
- Normally started upon completion of the fire alarm test/inspection.