CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR ABOVEGROUND PIPING

Standpipe System NFPA 14

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and the system left in service before the contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood that the owner's representative's signature in no way prejudices any claim against the contractor for faulty material, poor workmanship, or failure to comply with the approving authority's requirements or local ordinances.

Property name	Date
Property address	

Plans	Accepted by approving authorities (names) Address Installation conforms to accepted plans? ❑ Yes ❑ No Equipment used is approved or listed? ❑ Yes ❑ No If no, explain deviations. _____
Type of System	❑ Automatic dry ❑ Automatic wet ❑ Semiautomatic dry ❑ Manual dry ❑ Manual wet ❑ Combination standpipe/sprinkler If other, explain. _____
Water Supply Data Used for Design and As Shown on Plans	Fire pump data Manufacturer _____ Model _____ Type: ❑ Electric ❑ Diesel ❑ Other (explain) _____ Rated, gpm _____ Rated, psi _____ Shutoff, psi _____
Water Supply Source Capacity, Gallons	❑ Public waterworks system _____ (gal) ❑ Storage tank _____ (gal) ❑ Gravity tank _____ (gal) ❑ Open reservoir _____ (gal) ❑ Other (explain) _____
If Public Waterworks System:	Static, psi _____ Residual, psi _____ Flow, gpm _____
Have Copies of the Following Been Provided to the Owner or Owner's Representative?	❑ System components instructions ❑ Care and maintenance of system ❑ NFPA 25 ❑ Copy of accepted plans ❑ Hydraulic data/calculations
Supplies Building(s)	Main waterflow shutoff location _____ Number of standpipe risers _____ Do all standpipe risers have base of riser shutoff valves? ❑ Yes ❑ No
Valve Supervision	❑ Locked open ❑ Sealed and tagged ❑ Tamperproof switch ❑ Other If other, explain. _____
Pipe and Fittings	Type of pipe _____ Type of fittings _____
Hose Threads	Hose threads have been verfied for compliance with local fire department ❑ Yes ❑ No
Backflow Preventor	❑ Double check assembly ❑ Reduced-pressure device Size _____ Make and model _____

CONTROL VALVE DEVICE

Type	Size	Make	Model

Time to trip through remote hose valve _____ Min _____ Sec Water pressure _____ Air pressure _____
Time water reached remote hose valve outlet _____ Min _____ Sec Trip point air pressure _____ psi
Alarm operated properly? ❑ Yes ❑ No If no, explain. _____

Time water reached remote hose valve outlet _____ Min _____ Sec
Hydraulic activation ❑ Yes
Electric activation ❑ Yes
Pneumatic activation ❑ Yes
Make and model of activation device _____
Each activation device tested? ❑ Yes ❑ No If no, explain. _____

Each activation device operated properly? ❑ Yes ❑ No If no, explain. _____

PRESSURE-REGULATING DEVICE

Location & Floor	Model	Nonflowing (psi)		Flowing (psi)		gpm
		Inlet	Outlet	Inlet	Outlet	

All hose valves on system operated properly? ❑ Yes ❑ No If no, explain. _____

Test Description

Hydrostatic: Hydrostatic tests shall be made at not less than 200 psi (13.6 bar) for 2 hours or 50 psi (3.4 bar) above static pressure in excess of 150 psi (10.2 bar) for 2 hours. Differential dry pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.

Pneumatic: Establish 40 psi (2.7 bar) air pressure and measure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours.

Tests

Hydrostatic Test — Pressure at top of standpipe(s)

STP# _____ Pressure _____ (psi) (_____ bar) STP# _____ Pressure _____ (psi) (_____ bar)

STP# _____ Pressure _____ (psi) (_____ bar) STP# _____ Pressure _____ (psi) (_____ bar)

STP# _____ Pressure _____ (psi) (_____ bar) STP# _____ Pressure _____ (psi) (_____ bar)

All piping hydrostatically tested at _____ psi (____ bar) for _____ hrs

Dry piping pneumatically tested? ❑ Yes ❑ No

Equipment operates properly? ❑ Yes ❑ No

If no, state reason.

Do you certify as the standpipe contractor that additives and corrosive chemicals, sodium silicate, or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? ❑ Yes ❑ No

Drain test	Reading of gauge located near water supply test connection _____ psi (____ bar)	Residual pressure with valve in test connection open wide _____ psi (____ bar)

Underground mains and lead-in connections to system risers flushed before connection made to standpipe piping.

Verified by copy of the underground test form? ❑ Yes ❑ No ❑ Other (explain) _____

Flushed by installer of underground standpipe piping? ❑ Yes ❑ No _____

Flow Test

Flow water from the hydraulically most remote standpipe outlet(s).

Record: Static pressure: _____ psi (____ bar) Residual pressure: _____ psi (____ bar) Nozzle diameter: _____ in. (____ cm)

Pitot pressure: _____ psi (____ bar) Total flow: _____ gpm (____ L/min)

Blank Testing

Number used _____ Locations _____ Number removed _____

Welding

Welded piping ❑ Yes ❑ No

If yes . . .

Do you certify as the standpipe contractor that welding procedures comply with the requirements of at least AWS D10.9, Level AR-3? ❑ Yes ❑ No

Do you certify that the welding was performed by welders qualified in compliance with the requirements of at least AWS D10.9, Level AR-3? ❑ Yes ❑ No

Do you certify that welding was carried out in compliance with a documented quality control procedure to ensure that all discs are retrieved, that openings in piping are smooth, that slag and other welding residue are removed, and that the internal diameters of piping are not penetrated? ❑ Yes ❑ No

Cutouts (Discs)

Do you certify that you have a control feature to ensure that all cutouts (discs) are retrieved? ❑ Yes ❑ No

Hydraulic Data Nameplate

Nameplate provided? ❑ Yes ❑ No ❑ If no, explain. _____

Remarks

Date left in service with all control valves open: _____

Name of Sprinkler/ Standpipe Contractor

Name of contractor _____

Address _____

State license number (if applicable) _____

System Operating Test Witnessed by

Property owner _____ Title _____ Date _____

Sprinkler/standpipe contractor _____ Title _____ Date _____

Approving authorities _____ Title _____ Date _____

Additional Explanation and Notes

Contractor's Material and Test Certificate for Underground Piping

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

Property name	Date
Property address	

Plans

Accepted by approving authorities (names)

Address

Installation conforms to accepted plans ❑ Yes ❑ No

Equipment used is approved ❑ Yes ❑ No

If no, state deviations

Instructions

Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? ❑ Yes ❑ No

If no, explain

Have copies of appropriate instructions and care and maintenance charts been provided to the owner or owner's representative? ❑ Yes ❑ No

If no, explain

Location

Supplies buildings

Underground pipes and joints

Pipe types and class | Type joint

Pipe conforms to _____ standard ❑ Yes ❑ No

Fittings conform to _____ standard ❑ Yes ❑ No

If no, explain

Joints needing anchorage clamped, strapped, or blocked in accordance with _____ standard ❑ Yes ❑ No

If no, explain

Test description

Flushing: Flow the required rate until water is verified to be clear of debris at outlets such as hydrants and blow-offs. Flush at one of the flow rates as specified in 10.10.2.1.3 of NFPA 24.

Hydrostatic: All piping and attached appurtenances subjected to system working pressure shall be hydrostatically tested at 200 psi (13.8 bar) or 50 psi (3.4 bar) in excess of the system working pressure, whichever is greater, and shall maintain that pressure ±5 psi (0.34 bar) for 2 hours.

Hydrostatic Testing Allowance: Where additional water is added to the system to maintain the test pressures required by 10.10.2.2.1 of NFPA 24, the amount of water shall be measured and shall not exceed the limits of the following equation (for metric equation, see 10.10.2.2.6 of NFPA 24):

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

L = testing allowance (makeup water), in gallons per hour (lpm)
S = length of pipe tested, in feet (m)
D = nominal diameter of the pipe, in inches (mm)
P = average test pressure during the hydrostatic test, in pounds per square inch (gauge) (bar)

Flushing tests

New underground piping flushed according to _____ standard by (company) ❑ Yes ❑ No

If no, explain

How flushing flow was obtained
❑ Public water ❑ Tank or reservoir ❑ Fire pump

Through what type opening
❑ Hydrant butt ❑ Open pipe

Lead-ins flushed according to _____ standard by (company) ❑ Yes ❑ No

If no, explain

How flushing flow was obtained
❑ Public water ❑ Tank or reservoir ❑ Fire pump

Through what type opening
❑ Y connection to flange and spigot ❑ Open pipe

Hydrostatic test	All new underground piping hydrostatically tested at _____ psi (bar) for _____ hours	Joints covered ❑ Yes ❑ No
Leakage test	Total amount of leakage measured _____ gallons (liters) _____ hours	
	Allowable leakage _____ gallons (liters) _____ hours	
Forward flow test of backflow preventer	Forward flow test performed in accordance with 10.10.2.5.2 of NFPA 24: ❑ Yes ❑ No	
Hydrants	Number installed / Type and make	All operate satisfactorily ❑ Yes ❑ No
Control valves	Water control valves left wide open If no, state reason	❑ Yes ❑ No
	Hose threads of fire department connections and hydrants interchangeable with those of fire department answering alarm	❑ Yes ❑ No
Remarks	Date left in service	
Signatures	Name of installing contractor	
	Tests witnessed by	
	For property owner (signed) / Title / Date	
	For installing contractor (signed) / Title / Date	

Additional explanation and notes