SCOPE

Dry standpipe five year test requirements.

PURPOSE

The material below is intended to document the minimum 5-year test inspection requirements for dry standpipe systems.

**DRY STANDPIPES – FIVE-YEAR TEST**

Complete the entire form: Explain any negative answers.

Building Name: ___________________________________________

Address: ___________________________________________

  Number Street

Test Performed By: ____________________________

  (Fitter’s Name) (Company)

Date of Test: ____________________________

(Fire department shall be notified a minimum of two working days before a test is performed. A permit is required to perform the test.)

Number of dry standpipes in building: ________

Number of inlets per dry standpipe: ________

If more than one dry standpipe, are they interconnected? YES NO

**CAUTION:** BEFORE PROCEEDING, CONSIDER WHERE WATER WILL BE DISCHARGED AND TAKE ALL STEPS NECESSARY TO PREVENT WATER DAMAGE.
PART A. STANDPIPE CONNECTION INSPECTION

Examine and operate each connection on standpipe. Circle the appropriate answer.

Yes  No  All standpipe inlets/outlets operated properly.
Yes  No  All standpipe inlets/outlets have approved plugs or caps.
Yes  No  All inlets/outlets have National Standard threads which are in good condition.
Yes  No  Outlet gaskets are in good condition.

PART B. AIR TEST

Yes  No  System pressurized with air to 25 psi and all leaks repaired prior to further testing.

PART C. HYDROSTATIC TEST

1. Open outlet on roof.

2. Pump into fire department connection, slowly increasing pressure until water trickles onto roof indicating standpipe is full. Observe pressure on calibrated gauge at fire department connection and record here: __________ psi.

3. As a check on the results in Step 2, complete the following:

\[
\frac{\text{Number of Stories}}{\text{Approx. Height per Story}} \times 0.434 = \text{ psi} \\
\text{(This number should be close to entry in Step C. above)}
\]

If height of standpipe is known, multiply the height of the standpipe by .434 and enter above for psi.

4. Close outlet on roof. Using water to pressurize the system, pump the system up to 50 psi more than the pressure obtained in Step 2 or 150 psi, whichever is greater.

System was hydrostatically tested at a pressure of (check one)

_____ 150 psi  
\[\text{Pressure from Step 2 above} + 50 \text{ psi} = \text{__________} \]
5. Shut down pump and keep system pressurized for three minutes. Record pressure observed on calibrated gauge after three minutes here: __________ psi.

6. Standpipe hydrostatic test was satisfactory? YES NO

**PART D. FLOW TEST**

NOTE: PRELIMINARY FRICTION LOSS CALCULATIONS MUST BE DONE DURING THE TEST!

1. Install Underwriter’s playpipe with 1-1/8 inch tip on roof outlet.

2. Start pump and slowly increase pressure until a nozzle pressure of 8 psi is observed. This indicates that slightly more than 100 gpm is flowing.

3. Flow for a minimum of three minutes.

4. Record pressure observed on gauge installed at fire department connection inlet, which produced a nozzle pressure of 8 psi at roof: __________ psi.

It is the responsibility of the contractor performing the test to have all required equipment on site and available for use and/or inspection. Failure to have each piece of required equipment may delay the test or cause it to be cancelled. In either case a reinspection fee may be assessed.
Note: Pressure at the fire department connection inlet must be observed while there is 8 psi nozzle pressure. Any change of pump speed, adjusting of valves, etc., between readings will ruin test results.

4. Complete the following:

\[
\text{Pressure from Part D Step 3} - \text{Pressure from Part C Step 2} - 8 \text{ psi} = \underline{\underline{\text{Friction loss while flowing about 100 gpm}}} \]

5. Friction loss obtained in Step 4 is less than 15 psi?  YES  NO

6. Repeat Part D, conducting a separate flow through each inlet. Use back of this form to record results for each inlet.

   Exception: A separate flow through each inlet is not required if it can be demonstrated to the fire inspector that spring-loaded or swing clappers are operating properly.

PART E: TEST RESULTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Inlet Flow Pressure (Part D, Step 3)</th>
<th>Head Pressure Elevation (Part C, Step 2)</th>
<th>Friction Loss</th>
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Explain any negative answers or unusual conditions below:

PART F.

I certify the dry standpipe(s) described on this form, except as noted above, is/are operable.

Signed: ___________________________ Date: __________

Fitter

TO BE COMPLETED BY FIRE PREVENTION DIVISION PERSONNEL ONLY

Portion/s of test witnessed:  □ A. □ B. □ C. □ D.

Inspector’s Notes:

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

By:

______________________________________________________________

(Print Name)

Results as reported were checked and found to satisfactorily comply with the requirements of California Fire Code for dry standpipes.

Signed: ___________________________ Date: __________
PERSONNEL/EQUIPMENT REQUIRED FOR DRY STANPIPE 5-YEAR TEST

- Two personnel
- Pump capable of delivering at least 100 gpm at necessary pressure
- Air pump
- Calibrated gauges supplied by the contractor for all readings
- Supply of replacement gaskets for outlets
- Hydrant wrench
- Fire hose as needed
- Underwriters’ playpipe with 1-1/8-inch tip
- In-line gauge for use with 2-1/2-inch hose
- Second in-line gauge for use with 2-1/2-inch hose, or a pitot tube and gauge
- Necessary forms
- Tarps, diffusers, etc., to protect roof surface
- Two two-way radios are recommended to facilitate communications on high-rise buildings
- Compliance with the following City of Fresno Water Division Ordinance:

Fresno Municipal Code (FMC):

FMC, Section 6-534, Use of Fire Hydrants Regulated.

(a) When it is necessary to use water temporarily in connection with any type of construction or other operation at a place where supply is inadequate for such purposes, application may be made to the Water Division for a permit to use water from a fire hydrant.

(b) No person other than a duly authorized employee of the City of Fresno shall use water from, or connect any apparatus to, a fire hydrant without first obtaining a permit from the Water Division and securely attaching such permit to the fire hydrant at a conspicuous place near the point of connection.

(c) Each permit shall specify the fire hydrant or hydrants authorized to be used and no person shall attach such permit to any other hydrant, nor shall any person remove, obliterate, deface, or obscure any permit.

(d) No person other than a duly authorized employee of the City shall attach to the operating stem or cap of a fire hydrant any wrench or tool that is not approved by the Water Division for use on fire hydrants.

(e) Any permit, wrench, connecting apparatus, valve, hose, or other apparatus attached to a fire hydrant in violation of this section shall be subject to removal and confiscation by the City.
(f) The applicable water rate, determined as specified in FMC, Section 6-504, shall be doubled for water used in violation of this section, subject to the minimum charge designated in the Master Fee Resolution. No permit or additional permit shall be issued to any person who is in violation of this section until all such charges have been paid. (Added Ordinance 70-13, 1970; Amended Ordinance 80-115, § 156, eff. 8-8-80).