



Standpipe System Requirements

TECHNICAL BULLETIN

FIRE-9-6

City of San Diego

Development Services Department

January 2020

The purpose of this Technical Bulletin is to establish the minimum requirements for standpipe systems required by the California Fire Code (CFC) for non-high-rise buildings. See Technical Bulletin FIRE-9-1 for standpipe requirements for high-rise buildings. In addition to the requirements contained in this bulletin, standpipe systems shall also comply with the California Building Code (CBC) and National Fire Protection Association (NFPA) Standard 14.

I. TYPE OF STANDPIPE

As the City of San Diego does not contain areas subject to freezing, all standpipes must be wet standpipes. Dry standpipes are not allowed.

II. LOCATION OF HOSE CONNECTIONS

A. Enclosed Stairs

Where CFC 905.4 requires hose connections in interior exit stairs, hose connections shall be located on main floor landings. Standpipes shall not obstruct egress when the hose lines are connected and charged and the hose valves shall not be obstructed by open doors. Piping and hose connections shall not obstruct the required egress width per the CBC.

B. Unenclosed Stairs

Where standpipes are located in buildings with unenclosed stairs, the standpipes must be readily visible and located in close proximity to the floor level stair landing.

C. Horizontal Exits

Class I hose connections shall be provided on each side of the wall adjacent to the exit opening of a horizontal exit. Where floor areas adjacent to a horizontal exit are reachable from an interior exit stairway hose connection by a 30-foot hose stream from a nozzle attached to 100 feet of hose, as measured along the path of travel, a hose connection shall not be required on the opposite side of the horizontal exit. See Figure 1 for clarification.

D. Exit Passageways

Class I hose connections shall be provided at the entrance from an exit passageway to other areas of a building. A hose connection at the exit passageway may be omitted if all floor areas are within reach of a 30-ft. hose stream from a nozzle attached to 100 feet of hose.

E. Additional Hose Connections

Hose connections shall be provided so that all portions of a floor or story comply with the following:

1. Within 150 feet of a hose connection in non-sprinklered buildings, or
2. Within 200 feet of a hose connection in fully sprinkler-protected buildings.

III. PIPING

A. Manual Standpipe Supply

Manual wet standpipes that are supplied by a building's domestic service or the public water main shall be provided with a minimum of 3/4-inch supply. The feed to manual wet standpipes must be provided with an approved backflow prevention device and indicating-type valve.

B. Concealed Piping

Standpipe piping may be concealed provided that hose connections are conspicuous and positioned as required by NFPA 14, Chapter 7.

C. Hose Threads

Hose threads shall meet National Hose (NH) standards.

D. Protection of Piping

Piping shall be protected as required by NFPA 14. Standpipes shall not be installed in non-sprinklered areas of combustible construction. Where standpipe risers have horizontal offsets, the horizontal offsets are considered part of the standpipe riser and shall be protected as standpipe risers.

E. Drains

Drains must be provided in accordance with NFPA 14. Provide piping from the drain that discharges into the sanitary sewer or a location allowed by the current City of San Diego Storm Water Standards Manual.

IV. CALCULATIONS

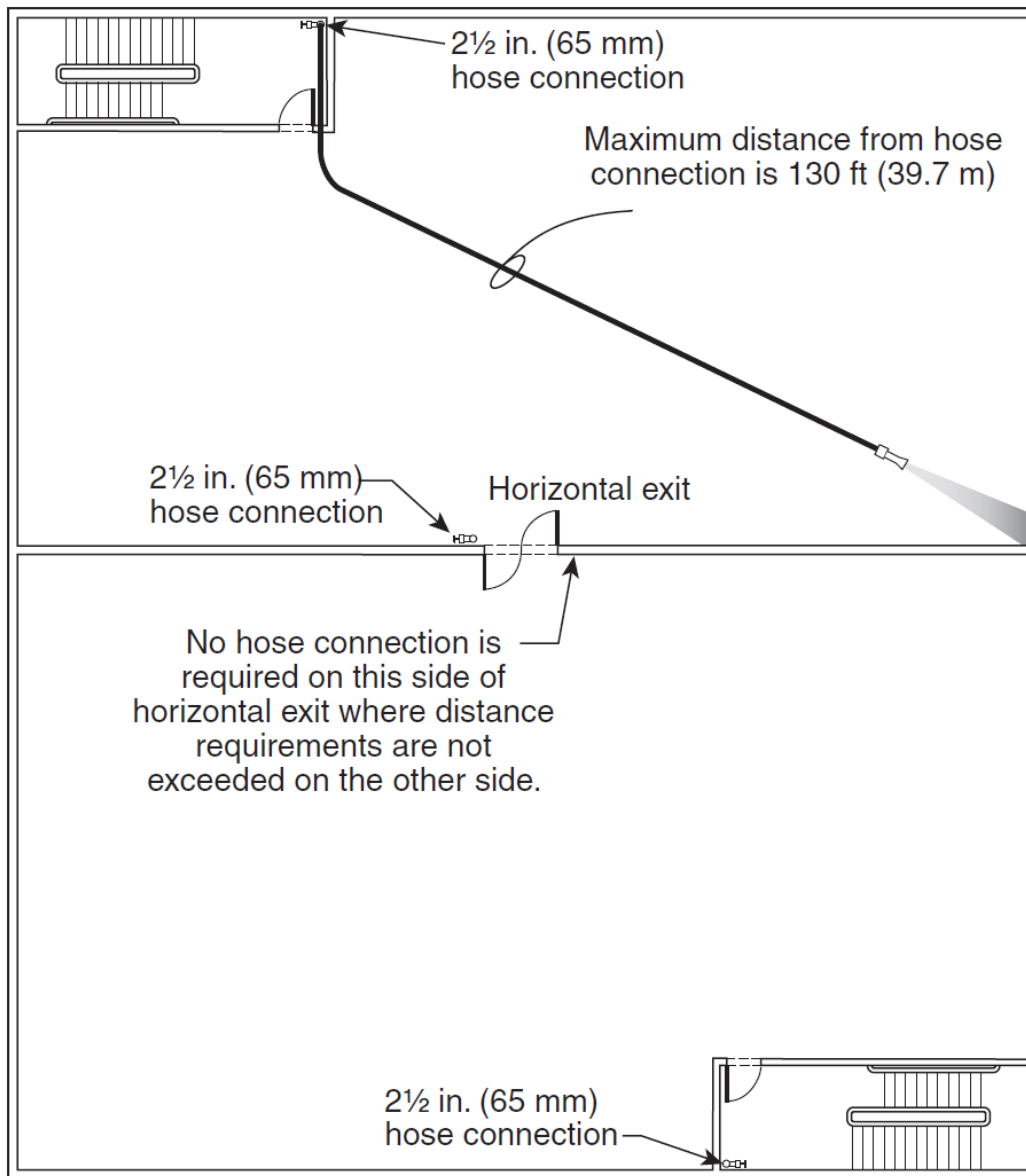
For manual standpipes, the Fire Department Connections supplied by the Fire Department pumper shall be considered the water supply for the system. The pumper can provide the following flows and pressures:

- 1500 GPM at 150 psi
- 1050 GPM at 200 psi
- 750 GPM at 250 psi

V. SIGNAGE

Signage shall be as required by NFPA 14. Plans shall include details and language of the proposed signs.

Figure 1



Documents Referenced in this Technical Bulletin

- California Building Code (CBC)
- California Fire Code (CFC)
- Standard for the Installation of Standpipe and Hose Systems, (NFPA 14)
- Technical Bulletin FIRE-9-1, Sprinklers, Standpipes, Fire Pumps and Secondary Water Supply for High-Rises
- Storm Water Standards Manual