



SANTA CLARA COUNTY FIRE DEPARTMENT

1315 Dell Avenue, Campbell, CA 95008 | (408) 378-4010 | SCCFD.org

SCOPE

STANDARD DETAILS & SPECIFICATIONS	Spec No <u>SP-3</u>
SUBJECT: Standpipe and Hose Systems	Rev. Date <u>00/00/00</u>
	Eff. Date <u>1/1/22</u>
	Approved By _____
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This standard applies to the installation of a Standpipe and Hose systems, whether required by the California Building Code, local ordinance, or as an approved Alternate Method of Compliance thereto.

DEFINITIONS

SCCFD: Shall refer to the Santa Clara County Fire Department.

Alternate Method of Compliance: An approved method of compliance that, in the opinion of the Fire Department, meets the intent of the provisions of the California Fire Code.

NFPA 14: Shall refer to the National Fire Protection Association Standard 14 – Standard for the Installation of Standpipe and Hose Systems.

REQUIREMENTS

I. GENERAL

A. 2019 California Fire Code (CFC) and NFPA 14 2016 shall be followed

II. PERMITS

A. Standpipe systems and their modification require a plan submittal. Plans shall be submitted as a deferred submittal to:

i. Santa Clara County Fire Department Fire Prevention Division, 16795 Lark Ave. #200, Los Gatos, California 95032.

ii. CFMO: submitted on the online Public Portal that can be accessed through: <https://aca-prod.accela.com/SCCGOV/Default.aspx>

B. All submittals shall include the following:

1. A copy of the SCCFD architectural plan check comments – this may be obtained from the architect or general contractor.
2. A copy of any approved alternate method that is relevant to the system – check with the architect or general contractor if an alternate method was



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submitted and approved. Three sets of shop quality plans and one submittal packet – one set of plans will be retained by SCCFD.

3. A copy of the building permit unless it is a voluntary system
- C. Fees will be collected based on the appropriate jurisdiction.
- D. The applicant shall be the installing contractor. All installing contractors shall have a California Sprinkler (C-16) Contractor's License and be familiar with the design and installation of these systems. The installing contractor shall also have a valid worker's compensation certificate, and a business license for the city in which the work is being performed. When a party other than the contractor designs the plans, a professional engineer shall stamp the plans.
- E. Installation, alteration, or demolition shall not commence prior to the approval of plans and the issuance of a permit.
- F. The permit card and a SCCFD approved set of plans shall be kept at the project site. They shall remain in the possession of the owner upon project completion.
1. Designer's full name (no initials, pseudonyms, or aliases) and signature. The designer of record shall be responsible for the entire system.
 2. Business name, address, and California Contractor's License number of the installing contractor. If the designer of the system is not the installing contractor, the following shall be clearly indicated/printed on the plans:
 - **DESIGNED BY** - followed by the designer's business name, address, designer of record's full name and signature.
 - **INSTALLING CONTRACTOR** - followed by the installing contractor's business name, address and California Contractor's License number.
 3. Type of system provided.
 4. Occupancy group(s) of building or area as defined by the California Building Code. Number of stories, building height, and construction type.
 5. Note stating that the design and installation complies with current versions of NFPA 14, the California Fire Code, the California Building Code, and the city ordinances where the system is being installed.



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III. PLANS

- A. The plans should follow the requirements noted in NFPA 14, 8.1.2.

IV. DESIGN AND INSTALLATION

- A. Combined sprinkler and standpipe systems
 - 1. Combined standpipe and sprinklers systems are permitted to be installed per CFC 905.3.
 - 2. In standpipe systems that utilize PRV's, combined standpipe and sprinklers systems are not permitted
- B. Hose Valves at Roof
 - 1. Hose connections are required to be installed such that the most remote, occupied portions of the roof are within 150ft of a hose connection; hose connections serving an unoccupied roof are not required to be within 150ft of the hose connection Ref CFC 905.4, NFPA 14, 7.3.2
- C. Hose Connection locations
 - 1. Hose connections are required to be installed on the intermediate landings of interior exit stairways on the side going up from the fire department access, and on the side going down on the stairways below fire department access. Ref CFC 905.4 and NFPA 14, 7.3.2
- D. Hydraulic Calculations (*need operations feedback; 150psi max? pump specs*)
 - 1. For manual standpipe systems, fire apparatus pumps are assumed to have a capacity of 1000gpm and the specifications per NFPA 1901 16.2.3.1
 - i. (1) One hundred percent of rated capacity at 150 psi (1000 kPa) net pump pressure
 - ii. (2) Seventy percent of rated capacity at 200 psi (1400 kPa) net pump pressure
 - iii. (3) Fifty percent of rated capacity at 250 psi (1700 kPa) net pump pressure

V. INSPECTIONS

- A. Standpipe system Flow Tests
 - 1. NFPA 14 requires flow tests to be conducted in accordance with the hydraulic calculations performed per 7.8 and 7.10. It is SCCFD's policy not to require flow tests of manual standpipe systems to the design-level flow rates per NFPA unless otherwise required by SCCFD for special situations, etc. SCCFD will conduct flow tests at system pressure to ensure that the standpipe system is connected to the water supply (i.e., not at design pressure/flow) at the top of each standpipe.



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2. Design-level flow tests are required for automatic standpipe systems at the hydraulically most demanding hose valves per NFPA 14. Where pressure-reducing valves are provided, each hose valve shall be flowed to the 250gpm and pressure observed.

VI. DOCUMENT REVISIONS

This document is subject to revision. Please visit the Santa Clara County Fire Department website at www.sccfd.org to verify the most current version.