## DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

# CALIFORNIA CODE OF REGULATIONS TITLE 25. DIVISION 1. HOUSING AND COMMUNITY DEVELOPMENT CHAPTER 3. FACTORY-BUILT HOUSING AND MOBILE HOMES SUBCHAPTER 2. MANUFACTURED HOMES, MOBILEHOMES, MULTIFAMILY MANUFACTURED HOMES, COMMERCIAL MODULARS, AND SPECIAL PURPOSE COMMERCIAL MODULARS ARTICLE 2.5. FIRE SPRINKLER SYSTEMS

# § 4300. Application of Design and Installation Requirements; Preemption of Local Design and Installation Requirements.

- (a) The requirements of this article apply to the design and installation of a fire sprinkler system -
- (1) in new or used mobilehomes or manufactured homes that are used or intended for use as a dwelling, and
  - (2) in new or used multifamily manufactured homes with two dwelling units.
- (b) The requirements of this article preempt all other requirements, including those of any ordinance or rule adopted by any city, county, city and county, or special district, as well as a fire district, that establish standards and requirements for the design and installation of a fire sprinkler system including, but not limited to those ordinances or rules adopted pursuant to section 18691 of the Health and Safety Code in the Mobilehome Parks Act -
- (1) in new or used mobilehomes or manufactured homes that are used or intended for use as a dwelling, and
  - (2) in new or used multifamily manufactured homes with two dwelling units.
- (c) This article does not require the installation of a fire sprinkler system in mobilehomes or manufactured homes or in multifamily manufactured homes with two dwelling units including those installed or reinstalled in a mobilehome park.
- (d) A residential fire sprinkler system shall not be required as a condition for approval of additions or alterations to existing manufactured homes, mobilehomes or multifamily manufactured homes that do not already contain a residential fire sprinkler system,

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029.5, 18030.5, and 18691, Health and Safety Code.

# § 4302. Adoption by Reference of the Provisions of NFPA13D, "Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes."

- (a) The design and installation of a fire sprinkler system must comply -
- (1) with the requirements of NFPA 13D, "Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes," 2010 edition, as published by the National Fire Protection Association; hereby incorporated by reference; and amended by subsection (c), and
- (2) with the provisions of Title 25, California Code of Regulations, sections 4300, 4302, 4304, 4306, 4308, 4310, 4312, 4313, 4314, 4316, 4318, 4320, 4322, and 4324.
- (b) References to the nationally recognized standard incorporated at subsection (a) will appear throughout Article 2.5 as NFPA 13D.

1 of 8

- (c) The following provisions of NFPA 13D are not adopted:
- (1) Chapter 5, section 5.1.3.
- (2) Chapter 6, section 6.3.2.
- (3) section 3.2.1. Approved.
- (4) section 3.2.2. Authority Having Jurisdiction (AHJ).
- (5) section 3.2.4. Listed.

Express Terms
Title 25, Chapter 3
Subchapter 2, Article 2.5
Fire Sprinkler Systems

02-10-11

- (6) section 4.2. Hydrostatic Tests.
- (7) section 4.6. Smoke Alarms.
- (8) section 8.1.3.2. Nonresidential Sprinklers.
- (9) section 8.2.3. Nonresidential Sprinklers.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

#### § 4304. Definitions.

- (a) The definitions contained in section 4004 and the definitions contained in chapter 1 of NFPA 13D apply to sections 4300 through 4324, with the exception of those definitions listed in subsection (b)
- (b) The following definitions contained in chapter 3 of NFPA 13D are superseded by the provisions of 18001, 18003.3, 18007, and 18015 of the Health and Safety Code and subsections (I), (w), and (y) of section 4004 and do not apply to sections 4300 through 4324:
  - (1) Approved.
  - (2) Authority Having Jurisdiction
  - (3) Dwelling.
  - (4) Dwelling Unit.
  - (5) Labeled.
  - (6) Listed.
  - (7) Manufactured Home.
  - (8) Shall.
  - (9) Sprinkler System.
  - (10) Standard.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18001, 18003.3, 18007, 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

# § 4306. Restrictions on the Sale of a Sprinklered Manufactured Home or Sprinklered Multifamily Manufactured Home with Two Dwelling Units.

It is unlawful for any person to sell, offer for sale, rent, or lease within this state any manufactured home or multifamily manufactured home with two dwelling units, without disclosure to the purchaser that the fire sprinkler system already installed or intended to be installed in the manufactured home or multifamily manufactured home with two dwelling units will not operate properly unless the water pressure available at the proposed installation site is adequate to satisfy the fire sprinkler system design criteria.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18035, 18035.2, 18046 18046.1 and 18060.5, Health and Safety Code.

# § 4308. Requirements for the Approval of the Plans for a Fire Sprinkler System Requirements for the Inspection of the Installation of a Fire Sprinkler System.

- (a) The following requirements apply to the installation of a fire sprinkler system during the manufacture of a manufactured home or multifamily manufactured home with two dwelling units:
- (1) A Design Approval Agency must review and approve the plans for the fire sprinkler system, including the residential sprinkler installation instructions, before the fire sprinkler system is installed.
  - (2) A Quality Assurance Agency must inspect and approve the installation of the fire sprinkler system.
- (A) The manufacturer must make the approved plans available to the Quality Assurance Agency at the manufacturing site prior to and throughout the installation of the fire sprinkler system.
- (B) The Quality Assurance Agency must inspect the installation of the fire sprinkler system during the manufacturing process. The inspection must occur prior to the point in the manufacturing process when any portion of the fire sprinkler system is concealed by wall or ceiling materials.
  - (C) The inspection method and frequency shall be as required by section 4878.
- (b) The following requirements apply to the installation of a fire sprinkler system as an alteration to a manufactured home or multifamily manufactured home with two dwelling units:

- (1) The department must approve the plans for the installation.
- (A) The person proposing to install the fire sprinkler system must apply for the department's approval as required by section 4042.
- (B) The application for the department's approval must include plans for the proposed fire sprinkler system and a copy of the residential sprinkler installation instructions.
- (2) The person installing a fire sprinkler system in a manufactured home or in a multifamily manufactured home with two dwelling units must be either the homeowner functioning as an owner-builder under the conditions of Business and Professions Code section 7026.12 or a fire protection contractor holding a valid C-16 license issued by the California Contractors Licensing Board.
- (3) The person installing the fire sprinkler system must obtain an inspection of the installation by a representative of the department prior to concealing any portion of the system with wall or ceiling material.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code; and Section 7026.12, Business and Professions Code.

### § 4310. Resolution of Disputes About the Requirements of NFPA 13D.

The department, after consultation with the Office of the State Fire Marshal, will resolve any dispute about the application of the requirements of NFPA 13D to manufactured homes and multifamily manufactured homes with two dwelling units.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

# § 4312. Types of Materials; Standards for Materials; Listing and Labeling of Materials and Equipment Standard for Residential Sprinklers; Manufacturer's Installation Instructions.

- (a) All piping, fittings, hangers, braces and supports, automatic sprinklers, valves, gauges and other materials or devices necessary to assemble a fire sprinkler system must conform to the requirements of NFPA 13D for the types of materials, for the standards with which the materials comply, and for the listing and labeling with which the materials and equipment must comply.
- (b) Residential sprinklers must be listed as complying with UL 1626, "Residential Sprinklers for Fire Protection Service," 2008 edition, as published by Underwriter's Laboratories and hereby incorporated by reference.
- (c) The person installing the fire sprinkler system must obtain any applicable manufacturer's installation instructions, when such instructions are issued by the manufacturer.
- (1) The person installing the fire sprinkler system must install all materials and devices as required by the manufacturer's installation instructions.
- (2) The person installing the fire sprinkler system must make the manufacturer's installation instructions available to the inspector from the Quality Assurance Agency or to the inspector from the department for use during the inspection required by section 4308.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

# § 4313. Location of Sprinklers

- (a) Sprinklers shall be installed in all areas in accordance with NFPA 13D 2010 edition.
- (b) Sprinklers shall not be required to be installed above a fuel-fired equipment room or closet regardless of size as long as there are no doors or unprotected penetrations from the closet directly into the dwelling unit.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

# § 4314. Construction Methods and Workmanship.

- (a) Construction methods and workmanship requirements of the National Manufactured Housing Construction and Safety Standards Act of 1974 (Title VI of Public Law 93-383, 88 Statute 700, 42 U.S.C. 5401, et seq.) apply to the installation of a fire sprinkler system during the manufacture of a manufactured home or multifamily manufactured home with two dwelling units.
- (b) The following requirements apply to the installation of a fire sprinkler system after the manufactured home or multifamily manufactured home with two dwelling units is shipped from the manufacturing facility.
  - (1) The person installing the fire sprinkler system -
  - (A) must perform all work in a manner suitable for the purpose and
- (B) must maintain the integrity of both the components under installation and the components of other systems.
- (2) The person installing the fire sprinkler system must bore holes in or notch structural framing members for the passage of piping as required by section 4316 of this article.
- (A) Alternate sizing and placement of holes and notches requires evidence provided by the installer with the plans for the fire sprinkler system proving that the alternate boring or notching maintains the integrity of the structural system.
- (B) The evidence must consist of an engineering analysis or testing conducted and certified by a California licensed architect or professional engineer.
- (3) If any insulation, vapor barriers, under floor bottom board, or any other materials are cut or moved in order to install a fire sprinkler system, the person installing the fire sprinkler system shall repair, replace, or reposition the materials in a workmanlike manner that maintains the integrity of the materials and system.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

## § 4316. Placement and Size of Holes and Notches in Joists, Beams, Plates, and Studs.

- (a) Joist.
- (1) A notch on the end of a joist must not be deeper than one-fourth (1/4) the depth of the joist.
- (2) The edge of a hole bored in a joist must be at least two (2) inches from the top and at least two (2) inches from the bottom of the joist. The diameter of the hole must not exceed one-third (1/3) the depth of the joist.
- (3) A notch in the top or bottom of a joist must not be deeper than one-sixth (1/6) the depth of the joist. The notch must not be located in the middle one-third (1/3) of the span of the joist.
- (b) A hole in a ridge beam must not be more than 2 inches in diameter and must be located in the middle one-third (1/3) of the depth of the beam.
  - (c) Top or bottom wall plate or a sill plate.
  - (1) A hole must not exceed 40% of the width of the plate,
  - (2) The edge of a hole must be at least 5/8 inch from any edge of the plate.
- (3) The edge of a hole must be separated by at least 12 inches from the nearest edge of other holes or notches in the same plate.
  - (d) Wall studs.
  - (1) A hole in a wall stud must not exceed 40% of the width of the stud,
  - (2) The edge of a hole in a wall stud must be at least 5/8 inch from any edge of the stud.
  - (3) A hole in a wall stud must not be located in the middle one-third (1/3) of the length of the stud.
  - (4) Only one hole is allowed in the upper or lower one-third (1/3) length of a wall stud.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

## 0§ 4318. Fire Sprinkler System Information and Installer Certification Label Reference Tag.

- (a) The installer of the fire sprinkler system must complete and affix:
- (1) a "Fire Sprinkler System Information and Installer Certification" label, and
- (2) a Reference Tag.
- (b) A "Fire Sprinkler System Information and Installer Certification" label:
- (1) must be either printed on paper or scribed, etched or engraved in metal, plastic or other equivalent material, with lettering at least 10 point font size;
  - (2) must be at least 8.5 inches by 11 inches in size;
  - (3) must be located on a wall or door surface inside the water heater compartment;
  - (4) must be positioned in a manner that allows a person to easily read the label; and
  - (5) must be affixed with adhesive or fasteners that discourage the removal of the label.
- (c) A "Fire Sprinkler System Information and Installer Certification" label must include all the statements and requested information arranged in substantially the same layout, as shown on the following example:

#### Fire Sprinkler System Information and Installer Certification

#### Attention: Do not remove or cover this label.

This dwelling unit contains a residential fire sprinkler system. The system installer certifies that the system complies with the requirements of Title 25, California Code of Regulations, sections 4300 through 4324. **Do not change** (alter) the fire sprinkler system without approval of the California Department of Housing and Community Development, Division of Codes and Standards. A homeowner **may perform repairs** without the Department's approval, **if all materials and devices installed are of the same type or possess the same characteristics** as the materials and devices replaced — refer to section 4324 of the above noted regulations. Any other person, other than a homeowner acting as an owner-builder making changes (alterations) or repairs to the system, must hold a valid C-16 contractor's license. Future additions of heat sources, such as a wood burning stove or fireplace, may adversely affect the performance of sprinklers and may activate one or more sprinklers. You may obtain permits and information about fire sprinkler systems from the California Department of Housing & Community Development, <u>Division of Codes and Standards</u>.

Signature of System Installer	Date	County	State
Installation, Design Approval, and Inspection Agency Information			
Name and Address of System Installer:			
Manufactured Home Serial Number(s):			
Date System Installed:			
Name and Address of Agency Approving Design:			
Name and Address of Agency Inspecting Installation:			
System Design Basis and Tests Sprinkler Information			
System Design Dasis and 1	ests		Information
Number of Design Sprinklers:		Manufacturer:	
1 head 2	head	Model:	
Design Coverage: ft. X	ft.	Year of Manufacture:	
Flow rate one sprinkler gpm	@ psi	Temperature rating:	degrees F
Flow rate two sprinkler gpm	@psi	K-Factor:	
System installer must test this system as required by Title 25, California Code of		Special Heads:	
Regulations, section 4320. Homeowner installer must hydrostatically test system hours at 50 psi minimum; 100 psi maxin	for two	sidewall(s) intermediate temperature not applicable	2
Water Supply Requirements			
In order for the fire sprinkler system to operate properly, the following minimum water supply must be available at the base of the fire sprinkler system riser:			
GPM @ not less than		psi for not less than	minutes.

- (d) A Reference Tag,
- (1) must be made of paper, or at least the equivalent;
- (2) must be at least 2 inches by 4 inches in size;
- (3) must contain lettering of at least 10 point font size;
- (4) must be covered in a permanent manner with a material that will protect the tag from damage or deterioration without obscuring the information;
- (5) must be permanently affixed to the fire sprinkler system riser by adhesive, or by plastic or wire tie, or the equivalent in a manner that prevents damage or loss; and
- (6) must be positioned in a manner that is conspicuous to the representative of the enforcement agency that appears at the installation site for the manufactured home or multifamily manufactured home with two dwelling units.
- (e) A Reference Tag must include all the statements and requested information arranged in substantially the same layout as shown in the following example:

# NOTICE TO ENFORCEMENT AGENCY AND REPAIR PERSONS

Information pertaining to the fire sprinkler system design, inspections, and water supply needs are provided on the Fire Sprinkler Information label located in the water heater compartment of this dwelling unit.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

## § 4320. Requirements for Testing the System.

- (a) A fire sprinkler system installed during the manufacture of the manufactured home or multifamily manufactured home with two dwelling units must be hydrostatically tested both at the manufacturing facility and at the home's installation site.
  - (1) The hydrostatic test performed at the manufacturing facility:
  - (A) must be conducted on the completely assembled system within any one transportable section; and
- (B) must subject the system to 100 pounds per square inch (psi) hydrostatic pressure for not less than 2 hours without any loss of pressure or leakage of water. Testing shall be performed in accordance with the applicable product standards.
- (2) The person responsible for installing the manufactured home or multifamily manufactured home with two dwelling units must hydrostatically test the system again at the home's installation site with the water supply available at the site for at least one hour without any evidence of leakage.
  - (A) The testing must be performed at a minimum of 50 psi; not to exceed 100 psi.
- (B) A representative of the enforcement agency must witness the hydrostatic test at the home's installation site during the same site visit to inspect the installation of the home or dwelling unit.
- (b) A fire sprinkler system must be hydrostatically tested at the home's installation site when the fire sprinkler system is installed after the manufactured home or multifamily manufactured home with two dwelling units is shipped from the manufacturing facility, or upon installation or reinstallation of the home or dwelling unit.
  - (1) The person who installed the fire sprinkler system is responsible for performing the test.
  - (2) A representative of the enforcement agency must witness the test.
  - (3) The installer must conduct the test on the completely assembled system.
- (4) The installer must conduct the test with the water supply available at the home's site for a period of two hours without any evidence of leakage. The testing must be performed at a minimum of 50 psi; not to exceed 100 psi.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

### § 4322. Maintenance Instructions.

If the manufacturer of a fire sprinkler system component used in a system provides written instructions and procedures for the operation, maintenance, periodic testing, and repair of the component, a copy of the instructions and procedures must be left in each dwelling unit for the end user.

- (a) When the fire sprinkler system is installed during the manufacture of the manufactured home or multifamily manufactured home with two dwelling units, the manufacturer must ensure that a copy of the instructions and procedures is left in each dwelling unit.
- (b) When the fire sprinkler system is installed after the manufactured home or multifamily manufactured home with two dwelling units is shipped from the manufacturing facility, the person who installs the system must ensure that a copy of the instructions and procedures is left in each dwelling unit.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.

#### § 4324. Repairs and Alterations to an Existing Fire Sprinkler System or Components.

- (a) Any operated or damaged residential sprinkler must be replaced with a new residential sprinkler that is the same model as the original or that has the same performance characteristics as the original residential sprinkler.
- (b) The repair or replacement of an operated or damaged residential sprinkler with a new residential sprinkler of the same model or performance characteristics is not an alteration.
- (c) The repair or replacement of any other fire sprinkler system material or device with a material or device of the same model or with the same performance characteristics is not an alteration of the system.
  - (d) An alteration of the fire sprinkler system includes any of the following activities:
- (1) The conversion of the system, such as a conversion to upgrade the system to increase the protection against property damage;
  - (2) The alteration of the system with a completely new system;
- (3) An addition to the system, such as extending the system to provide coverage to a newly added room;
  - (4) The modification of the system, such as moving the system riser; or
- (5) The removal of a portion or all of the system, such as the removal of a portion of the system from a room.
- (e) The alteration of a fire sprinkler system is subject to the department's approval of the plans for the alteration and to an inspection of the completed alteration by a representative of the department.
- (1) The person proposing to alter the fire sprinkler system must apply for the department's approval as required by section 4042.
- (2) The application for the department's approval must include plans for the alteration and a copy of any automatic sprinkler installation instructions.
- (3) The person altering a fire sprinkler system must be either the homeowner functioning as a builderowner under the conditions of Business and Professions Code section 7026.12 or a fire protection contractor holding a valid C-16 license issued by the California Contractors Licensing Board.
- (4) The person altering the fire sprinkler system must obtain an inspection of the alteration by a representative of the department prior to concealing any portion of the altered system with wall or ceiling material.

Note: Authority cited: Sections 18015, 18025, 18029 and 18029.5, Health and Safety Code. Reference: Sections 18015, 18025, 18029, 18029.5 and 18030.5, Health and Safety Code.