### **ORDINANCE NO. 1230**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE CALIFORNIA AMENDING SPECIFIED CHAPTERS OF TITLE 16 OF THE PERRIS CITY CODE TO ADOPT THE 2007 EDITIONS OF THE CALIFORNIA BUILDING CODE MECHANICAL, **VOLUMES** 1 & 2, PLUMBING, ELECTRICAL, FIRE CODES, THE CALIFORNIA EXISTING BUILDING CODE AND THE 1997 UNIFORM HOUSING CODE AND RELATED MODEL CODES APPENDICES AND AMENDMENTS THERETO

The City Council of the City of Perris does ordain as follows:

WHEREAS, Health and Safety Code Section 17958 provides that the City of Perris shall adopt Ordinances and regulations imposing the same or modified or changed requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922; and

WHEREAS, the State of California is mandated by Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the California Building Code, California fire Code, the 1997 Uniform Housing Code, California Existing Building Code, the California Plumbing Code, the California Mechanical Code, and the California Electrical Code (hereinafter referred to collectively as "Codes"); and

WHEREAS, Health and Safety Code Section 17958.5(a) permits the City to make modifications or changes to the Codes, which are reasonably necessary because of local climatic, geographic or topographic conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that the City Council, before making any modifications or changes to the Codes, shall make an express finding that such changes or modifications are reasonably necessary because of local climatic, geographic or topographic conditions; and

WHEREAS, the Development Services Department has recommended that changes and modifications be made to the Codes and have advised that certain said changes and modifications to the California Building Code, 2007 Edition and the California Plumbing Code, 2007 Edition and the California Mechanical Code, 2007 Edition, the California Electrical Code, 2007 Edition, the California Fire Code 2007 Edition, the Uniform Housing Code 1997 Edition, and the California Existing Building Code, 2007 Edition are reasonably necessary due to local conditions in the City of Perris.

(a) The City is subject to relatively low amounts of precipitation, very low humidity levels and extremely high temperatures. These climatic conditions are conducive to the spread of fire. For example during July, August and September, temperatures often exceed 100 degrees Fahrenheit. During the same months humidity is usually less than 40% and humidity measurements less than 10% are not uncommon. These conditions contribute to an increased

- likelihood of fire. Moreover, minor fires have a greater tendency of spreading rapidly due to such conditions.
- (b) The City is subject to extremely strong winds, commonly referred to as the "Santa Ana Winds", which reach speeds in excess of 80 miles per hour. Extensive damage often occurs during such winds including downed trees, utility poles, utility circuits and utility service lines. These adverse conditions can cause: (1) fires, (2) impairment to emergency apparatus access, (3) delays in response times of emergency apparatus: and (4) the depletion of apparatus readily available for fire suppression activities. These windstorms commonly last from three to seven days.
- (c) The City's neighboring foothills create a unique fire hazard. This is because fire Service is provided by both the County of Riverside and the California Division of Forestry. Fire units from both Fire Departments are often sent to assist in the extinguishment of fast moving and wind assisted fires in the neighboring foothills.
- (d) The City is located in an area, which due to its climate, geology, and topography is highly susceptible to fires, strong winds, low precipitation and seismic activity making necessary the adoption of additional requirements to ensure the City's residential, commercial, and industrial building stock is designed, preserved and maintained in such a condition as to protect the safety of it's residents.
- (e) The City is located in Southern California, in a extremely active seismic region, with high levels of historic earthquake activity in the recent past and can be expected to experience significant strong seismic activity within the foreseeable future.
- **NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Perris as follows:
- Section 1. The City Council of the City of Perris ("City") is informed and finds that it is reasonably necessary to amend the 2007 California Building Standards Code, know as the California Code of Regulations, Title 24; the California Building Code Volumes 1 & 2, Plumbing, Mechanical, Electrical, Fire Codes, The California Existing Building Code and the 1997 Uniform Housing Code; to meet the particular climatic, geological and topographical conditions existing in the City. These climatic, geological and topographical conditions include, but are not limited to the following conditions:
  - Section 2. The above recitals are all true and correct.
- Section 3. The City Council has reviewed and considered the environmental information included in the staff report and accompanying attachments. Based on the analysis of the project the City Council finds that:
  - A. This project is Category Exempt and complies with the California Environmental Quality Act.
- Section 4. Based on the information contained within the Project Report and the accompanying attachments and exhibits, the City Council hereby finds that:
- Section 5. The City Council hereby approves the amendments to the Perris City Code, based on the information and findings presented in the staff report.
  - Section 6. The City Council declares that should any provisions, sections, paragraphs,

sentence, or word of the Ordinance be rendered or declared invalid by any court of competent jurisdiction, or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences, and words of this Ordinance shall remain in full force and effect.

Section 16.08.050 of Chapter 16-08 of Title 16 of the Perris City Code are hereby repealed in their entirety, and new Sections 16.080.050 through 16080.59 of Chapter 16-08 of Title16 are hereby added in place thereof to read as follows:

### SECTION 16.08.050 ADOPTION OF THE 2007 CALIFORNIA BUILDING CODE

Except as provided in this chapter, those certain building codes known and designated as the California Building Code 2007 Edition Volumes 1 and 2 including Appendix Chapters 1, "B", "C", "F", "G", "H", "J", based on the 2006 International Building Code as published by the International Code Council, shall become the building codes of the City for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and/or structures in the City. The California Building Code and its appendix chapters will be on file for public examination in the office of the Building Official and the City Clerk's office.

### SECTION 16.08.051 AMENDMENTS TO THE CALIFORNIA BUILDING CODE

The 2007 California Building Code is hereby amended as follows:

- a. Section 108.8 Appeals Board is deleted.
- b. Section 202 is amended by revising the definition of High-Rise Building item #2 from 75 feet to 55 feet to read as follows:

"High-rise structure" means every building of any type of construction or occupancy having floors used for human occupancy located more than 55 feet (16764 mm) above the lowest floor level having building access. (See Section 413.1.2), except buildings used as hospitals as defined in Health & Safety Code Section 1250.

SECTION 202, General Definitions, is hereby amended by adding the following definitions:

FLOOR AREA. FIRE SPRINKLER. For the purpose of calculating square footage for application of fire sprinkler requirements, the floor area shall be determined in accordance with the CBC definition for "Floor Area, Gross". For Group R-3 occupancies portions of the structure not required to be protected by the automatic sprinkler system do not need to be included into the floor area calculation.

- c. Section 403.10.2 and 403.11.1 are modified by moving #2 Ventilation and automatic fire detection equipment for smokeproof enclosures from 403.10.2 Standby Power Loads and placing it in 403.11.1 Emergency Power Loads. The revised Sections are to read as follows:
  - 403.10.2 Standby power loads. The following are classified as standby power loads:
  - 1. Power and lighting for the fire command center required by Section 403.8;
  - 2. Electrically powered fire pumps

- 3. Standby power shall be provided for elevators in accordance with Sections 1007.4 and 3003.
- 403.11.1 Emergency power loads. The following are classified as emergency power loads:
  - 1. Exit signs and means of egress illumination required by Chapter 10;
  - 2. Elevator car lighting;
  - 3. Emergency voice/alarm communications systems;
  - 4. Automatic fire detection systems; and
  - 5. Fire alarm systems.
  - 6. Ventilation and automatic fire detection equipment for smokeproof enclosures...
  - d. Sections 504.2, 506.3 and 506.4.1 are deleted in their entirety and replaced as follows:
    - 504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the area increase in accordance with Section 506.2.

# Exceptions:

- 1. Fire areas with an occupancy in Group I-2 of Type 11B, III, IV and V construction.
- 2. Fire areas with an occupancy in Group H-1, H-2, H-3 or H-5.
- 3. Fire resistance rating substitution in accordance with Table 601, Note e.
- 4. [SFM] Fire areas with an occupancy in Group L.
- 5. [SFM] Fire areas with an occupancy in Licensed Group I-1 and R-4.

These increases are not permitted in addition to the area increase in accordance with 506.3.

For Group R-2 buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18 288 mm) or four stories, respectively, these increases are permitted in addition to the area increase in accordance with Section 506.3.

e. 506.3 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the area limitation in Table 503 is permitted to be increased by an additional 200 percent (Is = 2) for buildings with more than one story above grade plane and an additional 300 percent (Is = 3) for buildings with no more than one story above grade plane.

Exception: The area limitation increases shall not be permitted for the following conditions:

- 1. The automatic sprinkler system increase shall not apply to buildings with an occupancy in Use Group H-1.
- 2. The automatic sprinkler system increase shall not apply to the floor area of an occupancy in use Group H-2 or H-3. For mixed use buildings containing such occupancies, the allowable area shall be calculated in accordance with Section 508.3.3.2, with the sprinkler increase applicable only to the portions of the building not classified as Use Group H-2 or H-3.
- 3. Fire-resistance rating substitution in accordance with Table 601, note e.
- 4. [SFM] The automatic sprinkler system increase shall not apply to Group L occupancies.

These increases are not permitted in addition to the area increase in accordance with 506.3.

For Group R-2 buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, these increases are permitted in addition to the height increase in accordance with Section 504.2.

f. 506.4 Area determination. The maximum area of a building with more than one story above grade plane shall be determined by multiplying the allowable area of the first story (Aa), as determined in Section 506.1, by the number of stories above grade plane as listed below:

- 1. For buildings with two or more stories above plane, multiply by (2);
- 2. No story shall exceed the allowable area per story (Aa), as determined in Section 506.1, for the occupancies on the story.

Exception: Unlimited area buildings in accordance with Section 507.

506.4.1 Mixed occupancies. In buildings with mixed occupancies, the allowable area per story (A<sub>a</sub>) shall be based on the most restrictive provisions for each occupancy when the mixed occupancies are treated according to Section 508.3.2. When the occupancies are treated according to Section 508.3.3 as separated occupancies, the maximum total building area shall be such that the sum of the ratios for each such area on all floors as calculated according to Section 508.3.3.2 shall comply with the following:

1. The sum shall not exceed 2 for two-story buildings or higher.

### Chapter 9

(Fire Protection Systems)

**SECTION 903.2,** Where required, is hereby amended as follows:

Section 903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in this section as follows:

1. New buildings: In addition to the requirements of section 903.2.1 through 903.2.13, approved automatic sprinkler systems in new buildings and structures shall be provided when the gross area of the building exceeds 5,000 ft<sup>2</sup> or more than two-story high. Exception: Group R Detached one- two-family dwellings and townhouses as required by section 903.2.7

# Exception:

- 1. The elimination of sprinkler protection in the following areas are subject to approval by Fire Code Official. Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm system and are separated from the remainder of the building by fire barriers consisting of not less than 1-hour fire-resistance-rated walls and 2-hour fire-resistance-rated floor/ ceiling assemblies.
- 2. Open parking garages in accordance with Section 406.3 of the California Building Code.
- 2. Alteration: When the floor area of the Alteration within any two-year period exceeds 75% of area of the existing structure and the alteration includes structural modifications other than seismic upgrade.
- 3. Addition: Sprinkler protection shall be provided throughout the entire building when:
  - 1. Existing building less than 5,000 ft<sup>2</sup>: where 20% or more is added and the gross floor areas exceeds 5,000 square feet.
  - 2. Existing building equal or greater than 5,000 ft<sup>2</sup>: where more than 1,000 ft<sup>2</sup> is added.

### **SECTION 903.2.7,** Group R, is hereby amended as follows:

Section 903.2.7. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

An automatic sprinkler system shall be installed throughout any existing building when the floor area of the Alteration within any two year period exceeds 50% of area of the existing structure and the building area exceeds 3,600 ft<sup>2</sup>. When the cost of installing an approved automatic sprinkler system exceeds 5% of the cost of the Alteration, with the approval of the fire code official, the required automatic sprinkler system may be omitted.

# Exceptions:

- 1. Detached buildings containing two or less dwelling units with less than 3,600 ft<sup>2</sup> (279 m<sup>2</sup>) (including attached U-occupancy garages),
- 2. Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the second floor, and less than 3,600 square feet.
- 3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and building or portions thereof housing such children are not more than two stories in height, and thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
- 4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

**SECTION 903.3.1.1.1**, Exempt locations, is hereby amended by deletion of exception 4

**SECTION 903.4**, Sprinkler system monitoring and alarms, is hereby amended by modifying item 1, deleting item 5, and renumbering the Exceptions as follows:

- 1. Automatic sprinkler systems protecting one- and two-family dwellings protected by NFPA 13D sprinkler system with less than 100 sprinklers.
- 2. Limited area systems serving fewer than 20 sprinklers.
- 3. Jockey pump control valves that are sealed or locked in the open position.
- 4. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
- 5. Trim valves to pressure switches in dry, pre-action and deluge sprinkler systems that are sealed or locked in the open position.

**SECTION 905.4,** Location of Class I standpipe hose connections, is hereby amended by adding items 7 and 8 as follows:

- <u>7.</u> The centerline of the 2.5" outlet shall be no less than 18" above and no more than 24" above the finished floor.
- 8. Every new building with any horizontal dimensions greater than 300 feet (91,440 mm) shall be provided with either access doors or a 2.5" outlets so that all portions of the building can be reached with 150 feet (45,720) of hose from an access door or hose outlet. Required access doors shall be located in the exterior of the building and shall be accessible without the use of a ladder. The door dimensions shall be not less than 3 feet (914 mm) in width, and not less than 6 feet 8 inches (2032 mm) in height.

**SECTION 907.2.12**, High-rise buildings, is hereby amended as follows:

Section 907.2.12 High-rise buildings. High-rise buildings with a floor used for human occupancy located more than 55 feet (16764 mm) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with Section 907.2.12.2. Exceptions:

- 1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the International Building Code.
- 2. Open parking garages in accordance with Section 406.3 of the International Building Code.
- 3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code.
- 4. Low-hazard special occupancies in accordance with Section 503.1.1 of the International Building Code.
- 5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the International Building Code.

# **SECTION 907.2.12.1**, Automatic fire detection, is hereby amended as follows:

Section 907.2.12.1 Smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall operate the emergency voice/alarm communication system. Duct smoke detectors shall operate as specified in Section 907.12. Smoke detectors shall be located as follows:

- 1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room which is not provided with sprinkler protection, elevator machine rooms, and in elevator lobbies.
- 2. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m3/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.
- 3. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a listed smoke detector is allowed to be used in each return-air riser carrying not more than 5,000 cfm (2.4 m3/s) and serving not more than 10 air-inlet openings.

**SECTION 907.2.12.2,** Emergency voice/alarm communication system, I hereby amended as follows.

Section 907.2.12.2 Emergency voice/alarm communication system. The operation of any automatic fire detector, sprinkler water-flow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation on a minimum of the alarming floor, the floor above and the floor below., Duct smoke detectors shall operate as specified in Section 907.12. Speakers shall be provided throughout the building by paging zones. As a minimum, paging zones shall be provided as follows:

- 1. Elevator groups.
- 2. Exit stairways.
- 3. Each floor.
- 4. Areas of refuge as defined in Section 1002.1.
- 5. Dwelling Units in apartment houses.

# 6. Hotel guest rooms or suites.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

# **SECTION 907.9.3** High-rise buildings, is hereby amended as follows:

Section 907.9.3 High-rise building. In buildings with a floor used for human occupancy that is located more than 55 feet (16764 mm) above the lowest level of fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

- 1. Smoke detectors.
- 2. Sprinkler water-flow devices.
- 3. Manual fire alarm boxes.
- 4. Other approved types of automatic fire detection devices or suppression systems.

## **SECTION 907.11** Duct smoke detectors, is hereby amended as follows:

Section 907.11 Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is provided. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location. Duct smoke detectors shall not be used as a substitute for required open area detection. Exception:

In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

### **SECTION 910.3.2.2** Sprinklered buildings, is hereby amended as follows:

Section 910.3.2.2 Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at least 100° F above the operating temperature of the sprinkler.

g. Table 1505.1 is hereby amended, by the deletion of Table 1505.1 and the addition of a new Table 1505.1 thereto, to read as follows:

#### **TABLE 1505.1**

### MINIMUM ROOF COVERING CLASSIFICATIONS

### TYPES OF CONSTRUCTION

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
В	В	В	В	В	В	В	В	В

h. Section 1505.1.3 is hereby amended, by the deletion of the entire section and the addition of a new section thereto, to read as follows:

1505.1.3 Roof coverings within all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B."

i. Section 1613.7 is added to Chapter 16 of the 2007 California Building Code to read as follows:

**1613.7 Minimum Distance for Building Separation.** All structures shall be separated from adjoining structures. Separations shall allow for the maximum inelastic response displacement ( $\square_M$ ).  $\square_M$  shall be determined at critical locations with consideration for both translational and torsional displacements of the structure as follows:

$$\Delta_{\rm M} = \frac{C_{\rm d} \delta_{\rm max}}{I}$$
 (Equation 16-45)

where  $\square_{\text{max}}$  is the calculated maximum displacement at Level x, and may be taken as 1.2 times the average of the displacement at the extreme points of the structure at level x.

Adjacent buildings on the same property shall be separated by at least a distance  $\square_{MT}$ , where

$$\Delta_{\text{MT}} = \sqrt{(\Delta_{\text{M1}})^2 + (\Delta_{\text{M2}})^2}$$
(Equation 16-46)

and  $\square_{M1}$  and  $\square_{M2}$  are the maximum inelastic response displacements of the adjacent buildings.

Where a structure adjoins a property line not common to a public way, the structure shall

also be set back from the property line by at least the displacement,  $\square_M$ , of that structure. *Exception: Smaller separations or property line setbacks shall be permitted when justified by rational analyses.* 

### References:

- 1. IBC 2000 Section 1620.3.6, Building Separations; IBC 2003 Section 1620.4.5, Building Separations;
- 2. "Recommended Lateral Force Requirements and Commentary, Section C108.2.11, Building Separations," Structural Engineers Association of California, Sacramento, CA, 1999 Edition;
- 3. CBC 2002 (UBC 1997) Section 1630.9.2, Determination of □M; Section 1630.10.1, General; and Section 1633.2.11, Building Separations.
- 4. Los Angeles Regional Uniform Code Program item 16-01.
- j. Section 1614, 1614.1, 1614.1.1- Adopt the minimum seismic base shear provisions of ASCE 7-02 in place of the ASCE 7-05 provisions by adding Section 1614, 1614.1 and 1614.1.1 to Chapter 16 of the 2007 CBC to read as follows:

# Section 1614 Modifications to ASCE 7

1614.1 General. The text of ASCE 7 shall be modified as indicated in this Section.

1614.1.1 ASCE 7, Section 12.8.1.1. Modify ASCE 7 Section 12.8.1.1 by amending Equation 12.8-5 as follows:

 $C_s = 0.01 \ 0.044 \ S_{DS} I$  (Eq. 12.8-5)

- m. Section 1614A.1.8 is hereby added by adopting Section 1614A.1.8 modifying ASCE 7 Equation 12.8-16 as adopted by OSHPD and DSA and as already provided in Chapter 16-A of the C.B.C.
- n. Section 1614A.1.12 is hereby added by adopting Section 1614A.1.12 modifying ASCE 7 Section 13.5.6.2 to add seismic design requirements for suspended ceilings as adopted by DSA and as already provided in Chapter 16-A of the CBC.
- o. Sections 1908.17, 1908.17.1 and 1908.17.2 are added to Chapter 19 of the California Building Code to read as follows:

**1908.1.17 ACI 318, Equation (14-7) of Section 14.8.3 and 14.8.4.** Modify ACI 318, Sections 14.8.3 and 14.8.4 as follows:

**1908.1.17.1** Modify equation (14-7) of ACI 318 Section 14.8.3 to read as

follows:

I<sub>cr</sub> shall be calculated by Equation (14-7), and M<sub>a</sub> shall be obtained by iteration of deflections.

$$I_{cr} = \frac{E_s}{E_c} \left( A_s + \frac{P_u}{f_v} \frac{h}{2d} \right) (d - c)^2 + \frac{l_w c^3}{3}$$
 (14-7)

and the value E<sub>s</sub>/E<sub>c</sub> shall not be taken less than 6.

**1908.1.17.2.** Modify ACI 318 Sec, 14.8.4 to read as follows:

14.8.4 − Maximum out-of-plane deflection,  $\square_s$ , due to service loads, including P $\square$  effects, shall not exceed  $l_s/150$ .

If  $M_a$ , maximum moment at mid-height of wall due to service lateral and eccentric loads, including  $P \square$  effects, exceed  $(^2/_3)M_{cr}$ ,  $\square_s$  shall be calculated by Equation (14-8):

$$\Delta_{s} = \frac{2}{3} \Delta_{cr} + \frac{M_{a} - \frac{2}{3} M_{cr}}{M_{n} - \frac{2}{3} M_{cr}} \left( \Delta_{n} - \frac{2}{3} \Delta_{cr} \right)$$
(14-8)

If  $M_a$  does not exceed  $\binom{2}{3}M_{cr}$ ,  $\square_s$  shall be calculated by Equation (14-9):

$$\Delta_s = \left(\frac{M_a}{M_{cr}}\right) \Delta_{cr} \tag{14-9}$$

where:

$$\Delta_{cr} = \frac{5M_{cr}l_c^2}{48E_cI_g}$$

$$\Delta_n = \frac{5M_n l_c^2}{48 E_c I_{cr}}$$

k. Section 3109.4.4 is amended to clarify that pool barriers which are already in the Code are scoped so as to apply on all private swimming pools and is to read as follows:

Amend 3109.4.4.1 by adding the following definition.

PRIVATE POOL, is any constructed pool, permanent or portable, which is intended for non-commercial use as a swimming pool by not more than three owner families and their guests.

3109.4.4.2 is modified by deleting the first paragraph in its entirety and a new paragraph is substituted to read as follows:

3109.4.4.2 Construction permit; safety features required. Commencing, January 1, 1998 except as provided in Section 3109.4.4.5, whenever a construction permit is issued for construction of a new private pool at a residence, it shall have an enclosure complying with 3109.4.4.3 and, it shall be equipped with at least one of the following safety features.

Appendix Chapter 1 section 105.2 "Work Exempt from permit" is amended to add item.

14. Platforms, walks and driveways not more than 30 inches above grade and not over any basement or story below.

# CHAPTER 2 MECHANICAL CODE

SECTION 16.08.052 ADOPTION OF 2007 EDITION OF THE CALIFORNIA MECHANICAL CODE

Except as provided in this chapter, the California Mechanical Code, 2007 Edition based on the 2006 Uniform Mechanical Code as published by the IAMPO, shall be and become the Mechanical Code of the City, regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance of heating, ventilating, cooling, refrigeration systems, incinerators and other miscellaneous heat producing appliances. The California Mechanical Code is on file for public examination in the office of the Building Official.

SECTION 16.08.053 AMENDMENTS TO THE CALIFORNIA MECHANICAL CODE

The 2007 Edition of the California Mechanical Code is hereby adopted with no amendments.

# CHAPTER 3 PLUMBING CODE

SECTION 16.08.054 ADOPTION OF 2007 EDITION OF THE CALIFORNIA PLUMBING CODE

Except as provided in this chapter, the California Plumbing Code, 2007 Edition, based on the 2006 Uniform Plumbing Code including Appendix Chapter K & I, as published by the International Association of Plumbing and Mechanical Officials, shall be and become the Plumbing Code of the City of Perris, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of plumbing systems within the City. The California Plumbing Code will be on file for public examination in the office of the Building Official.

SECTION 16.08.055 AMENDMENTS TO THE CALIFORNIA PLUMBING CODE

The 2007 Edition of the California Plumbing Code is hereby adopted with no amendments.

SECTION 16.08.056 ADOPTION OF 2007 EDITION OF THE CALIFORNIA ELECTRICAL CODE

Except as provided in this chapter, the California Electrical Code, 2007 Edition, based on the 2005 National Electrical Code as published by the National Fire Protection Association, shall be and become the Electrical Code of the City of Perris, regulating all installation, arrangement, alteration, repair, use and other operation of electrical wiring, connections, fixtures and other electrical appliances on premises within the City. The California Electrical Code is on file for public examination in the office of the Building Official.

## SECTION 16.08.057 AMENDMENTS TO THE CALIFORNIA ELECTRICAL CODE

The 2007 Edition of the California Electrical Code is hereby amended as follows:

a. Article 310.2(B) is hereby amended, by the addition of a second paragraph, to read as follows:

"Copper wire shall be used for wiring No. 6 and smaller in all installation. Consideration for use of aluminum wiring can be made by the Building Official for feeder lines only on an individual basis where adequate safety measures can be ensured."

b. Article 310 is amended, by addition of a new Article 310.16, to read as follows:

"310-16 Continuous inspection of aluminum wiring.

Aluminum conductors of No. six (6) or smaller used for branch circuits shall require continuous inspection by an independent testing agency approved by the Building Official for proper torquing of connections at their termination point."

# SECTION 16.08.057A ADOPTION OF 2007 EDITION OF THE CALIFORNIA EXISTING BUILDING CODE

Except as provided in this chapter, the California Existing Building Code Appendix A-1 based on the 2006 International Existing Building Code as published by the International Code Council, shall become the Existing Building Code of the City for regulating existing buildings in the City. The California Existing Building Code will be on file for public examination in the office of the Building Official.

### SECTION 16.08.057B. AMENDMENTS TO THE CALIFORNIA EXISTING BUILDING CODE

All Sections of the Code are deleted except Appendix A-1 which is hereby adopted with no

amendments.

### SECTION 16.08.058 ADOPTION OF THE 2007 CALIFORNIA FIRE CODE

Except as provided in this chapter, those certain fire codes know and designated as the California Fire Code 2007 Edition based on the 2006 International Fire Code as published by the "International Code Council", shall become the fire code of the City for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conservation, occupancy, equipment, use, height, area and maintenance of all buildings and/or structures in the City for all fire related issues. The California Fire Code and its appendix chapters will be on file for public examination in the office of the Building Official/Fire Marshal and the City Clerk's office.

### SECTION 16.08.059 AMENDMENTS TO THE CALIFORNIA FIRE CODE

The 2007 California Fire Code is hereby amended as follows:

# Chapter 2 Definitions

SECTION 202, General Definitions, is hereby amended by adding the following definitions:

ALTERATIONS: Any construction or renovation to and existing structure other than a repair or addition. Alterations include but not limited to the addition or elimination of walls within the existing building envelope. Alteration also includes modification to the structure which involve complete removal and replacement of the wall board within any room.

FLOOR AREA, for the purpose of calculating square footage for application of fire sprinkler requirements, the floor area shall be determined in accordance with the CBC definition for "floor Area, Gross." For R-3 occupancies portions of the structure not required to be protected by the automatic sprinkler system do not need to be included into the floor area calculations.

FLOWLINE: Flowline is the lowest continuous elevation on a rolled curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

HIGH-RISE BUILDING, item 2 of this definition is hereby modified as follows:

"High-rise structure" means every building of any type of construction or occupancy having floors used for human occupancy located more than 75 55 feet above the lowest floor level having building access (see California Building Code, Section 403.1.2), except buildings used as hospitals as defined in Health and Safety Code Section 1250.

Chapter 3
General Precautions Against Fire

**SECTION 305.5,** is hereby amended by adding the following new section:

Section 305.5, Spark Arrestors. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrestor, the spark arrester shall meet all of the following requirements:

- 1. The net free area of the spark arrester shall not be less than four times the net area of the outlet of the chimney.
- 2. The spark arrester screen shall have heat or corrosion resistance equivalent to 12 gage wire, 19 gage galvanized wire or 24 gage stainless steel.
- 3. Openings shall not permit the passage of spheres having a diameter larger than ½ inch and shall not block the passage of spheres having a diameter of less than 3/8 inch.
- <u>4.</u> The spark arrester shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.

**SECTION 316,** is hereby amended by adding the following new section:

Section 316, Development On Or Near Land Containing Or Emitting Toxic, Combustible or Flammable Liquids, Gases or Vapors. The fire code official may require the submittal for approval of geological studies, evaluations, reports, remedial recommendations and/or similar documentation from a state-licensed and department approved individual or firm, on any parcel of land to be developed which:

1. Has, or is adjacent to, or within 1,000 feet (304 800 mm) of a parcel of land that has an active, inactive, or abandoned oil or gas well operation, petroleum or chemical refining facility, petroleum or chemical storage, or

May contain or give off toxic, combustible or flammable liquids, gases or vapors.

Section 317, Fuel Modification Requirements for New Construction is added as follows:

Section 317— Fuel Modification Requirements for New Construction: All new buildings to be built or installed in areas containing combustible vegetation shall comply with the following:

- 1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official concurrent with the submittal for approval of any tentative map.
- 2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.
- 3. The fuel modification plans shall meet the criteria set forth in the Orange County Fire Authority Fuel Modification Plan Guidelines.
- 4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification shall be approved by the Fire Code Official.
- 5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

Section 318 Clearance of brush or vegetative growth from structures

- A. General. Persons owning, leasing, controlling, operating or maintaining buildings or structures in, upon or adjoining hazardous fire areas, and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times:
  - 1. Maintain an effective firebreak by removing and clearing away flammable vegetation and combustible growth from areas within 30 feet (9144 mm) of such buildings or structures;
    - Exception: Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.
  - 2. Maintain additional fire protection or firebreak by removing brush, flammable vegetation and combustible growth located from 30 feet to 100 feet (9144 mm to 30 480 mm) from such buildings or structures, when required by the fire code official because of extra hazardous conditions causing a firebreak of only 30 feet (9144 mm) to be insufficient to provide reasonable fire safety;

Exception: Grass and other vegetation located more than 30 feet (9144 mm) from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

- 3. Remove portions of trees which extend within 10 feet (3048 mm) of the outlet of a chimney;
- 4. Maintain trees adjacent to or overhanging a building free of deadwood; and
- 5. Maintain the roof of a structure free of leaves, needles or other dead vegetative growth.
- B. Corrective Actions. The executive body is authorized to instruct the fire code official to give notice to the owner of the property upon which conditions regulated by Section 318 A exist to correct such conditions. If the owner fails to correct such conditions, the executive body is authorized to cause the same to be done and make the expense of such correction a lien upon the property where such condition exists.

Section 319 — Clearance of brush or vegetation growth from roadways

The fire code official is authorized to cause areas within 10 feet (3048 mm) on each side of portions of highways and private streets which are improved, designed or ordinarily used for vehicular traffic to be cleared of flammable vegetation and other combustible growth. The fire code official is authorized to enter upon private property to do so.

Exception: Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, ivy, succulents or similar plants used as ground covers, provided that they do not form a means of readily transmitting fire.

Section 320—Unusual Circumstances

The fire code official may suspend enforcement and require reasonable alternative measures designed to advance the purposes of this article if he determines in any specific case that any of the following conditions exist:

- 1. Difficult terrain.
- 2. Danger of erosion.

- 3. Presence of plants included in any state and federal resources agencies, California Native Plant Society and county-approved list of wildlife, plants, rare, endangered and/or threatened species.
- 4. Stands or groves of trees or heritage trees.
- Other unusual circumstances that make strict compliance with the clearance of vegetation provisions of Sections 318 and 319 of this appendix undesirable or impractical.

# Section 321 — Use of Equipment

- 1. Except as otherwise provided in this section, no person shall use, operate, or cause to be operated, in, upon or adjoining any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a spark arrester as defined in Section 25.3 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire pursuant to Section 25.3.
- 2. Spark arresters affixed to the exhaust system of engines or vehicles subject to this section shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.
- 3. A spark arrester is a device constructed of nonflammable material specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch (0.58 mm) in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.
- 4. Engines used to provide motor power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code of the State of California.
- 5. Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in effective mechanical condition.

## Section 322 — Restricted entry

The fire code official shall determine and publicly announce when hazardous fire areas shall be closed to entry and when such areas shall again be opened to entry. Entry on and occupation of hazardous fire areas, except public roadways, inhabited areas or established trails and camp sites which have not been closed during such time when the hazardous fire area is closed to entry, is prohibited.

Exception: 1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands.

2.Entry, in the course of duty, by peace or police officers, and other duly authorized public officers, members of a fire department and members of the United States Forest Service.

### Section 323 — Trespassing on posted property

- A. General. When the fire code official determines that a specific area within a hazardous fire area presents an exceptional and continuing fire danger because of the density of natural growth, difficulty of terrain, proximity to structures or accessibility to the public, such areas shall be closed until changed conditions warrant termination of closure. Such areas shall be posted as hereinafter provided.
- B. Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.
- C. Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception: Owners and occupiers of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their authorized agents acting in the course of duty.

# Section 324— Explosives and blasting

Explosives shall not be possessed, kept, stored, sold, offered for sale, given away, used, discharged, transported or disposed of within hazardous fire areas except by permit from the fire code official.

# Section 325 – Outdoor fires

Outdoor fires shall not be built, ignited or maintained in or upon hazardous fire areas, except by permit from the fire code official.

Exception: Outdoor fires within habited premises or designated campsites where such fires are built in a permanent barbecue, portable barbecue, outdoor fireplace, incinerator or grill and are a minimum of 30 feet (9144 mm) from a grass-, grain-, brush- or forest-covered area.

Permits shall incorporate such terms and conditions which will reasonably safeguard public safety and property. Outdoor fires shall not be built, ignited or maintained in or upon hazardous fire areas under the following conditions:

- 1. When high winds are blowing,
- 2. When a person age 17 or over is not present at all times to watch and tend such fire, or
- 3. When public announcement is made that open burning is prohibited.

Permanent barbecues, portable barbecues, outdoor fireplaces or grills shall not be used for the disposal of rubbish, trash or combustible waste material.

# Chapter 4 Emergency Planning and Preparedness

### DELETE WITHOUT REPLACEMENT

# Chapter 5 Fire Service Features

**SECTION 503.2.1, Dimensions**, is hereby amended by adding the following sentence at the end of the first paragraph:

Section 503.2.1 Dimensions. (Remainder unchanged) Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flowline to flowline, on streets with rolled curbs.

In areas defined as:

- State Responsibility Area: Fire Hazard Severity Zones
- Local Responsibility Area: Wildland-Urban Interface Area as adopted by the local agencies

The minimum street width is 28 feet. When the road serves no more than 3 dwellings unts and the road does not exceed 150 feet in length, the road may be 24 feet.

**SECTION 503.4:** Obstruction of fire apparatus access roads is hereby amended by adding the following sentence at the end of the first paragraph:

Section 503.4 Obstruction of fire apparatus access roads. (Remainder unchanged) Sped Bumps and speed humps, shall be approved by the fire code official prior to installation.

**SECTION 503.6** Security gates, shall be mended by adding the following language at the end of the first paragraph:

Section 503.6 Security gate. (Remain unchanged) Vehicle access gates or barriers shall be in accordance with the City of Perris Guideline for Emergency Access.

**SECTION 508.5.1** Where required, is hereby amended as follows:

Section 508.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than allowed in APPENDIX C from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

### *Exceptions:*

1. For Group R-3 and Group U occupancies, the distance requirements shall be 600 feet (183m) where fire sprinklers are installed throughout the structure in accordance with the currently adopted Edition of NFPA13D.

# Chapter 6 Building Services and Systems

**SECTION 604.2.16.1.** Standby power loads, is hereby amended as follows:

Section 604.2.16.16.1 The following loads are classified as standby power loads:

- 1. Smoke control system.
- 2. Ventilation and automatic fire detection equipment for smokeproof enclosures.
- 2. Fire Pumps.
- 3. Standby power shall be provided for elevators in accordance with Section 3003 of the California Building Code

**SECTION 604.2.16.2.1** Emergency power loads, is hereby amended by adding item 6 as follows:

Section 604.2.16.16.2.1 The following loads are classified as emergency power loads:

- 1. Emergency voice/alarm communication systems.
- 2. Fire alarm systems.
- 3. Automatic fire detections systems.
- 4. Elevator car lighting.
- 5. Means of egress lighting and exit sign illumination as required by Chapter 10.
- 6. Ventilation and automatic fire detection equipment for smokeproof enclosures.

## **SECTION 606.8,** Refrigerant Detector, is hereby amended as follows:

Section 606.8 Refrigerant Detector. Machinery rooms shall contain a refrigerant detector with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values shown in the California Mechanical Code for the refrigerant classification. Detectors and alarms shall be placed in approved locations. In addition, emergency shutoff shall also be automatically activated when the concentration of refrigerant vapor exceeds 25 percent of lower flammability level (LFL).

### **SECTION 606.10.1.2** Manual Operation, is hereby amended as follows

Section 606.1.2 Manual operation. When required by the fire code official, automatic crossover valves shall be capable of manual operation. The manual valves shall be located in an approved location immediately outside of the machinery room, in a secure metal box and marked as Emergency Controls.

### **SECTION 608.1,** Scope, is hereby amended as follows:

Section 608.1, Stationary storage battery systems having an electrolyte capacity of more than 50 gallons (189 L) for flooded lead acid, nickel cadmium (Ni-Cd) and valve-regulated lead acid (VRLA), or 1,000 pounds (454 kg) for lithium-ion, used for facility standby power, emergency power or, uninterrupted power supplies, or indoor storage of electric carts/cars shall comply with this section and Table 608.1

## Chapter 9

# **SECTION 903.2,** Where required, is hereby amended as follows:

Section 903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in this section as follows:

1. New buildings: In addition to the requirements of section 903.2.1 through 903.2.13, approved automatic sprinkler systems in new buildings and structures shall be provided when the gross area of the building exceeds 5,000 ft<sup>2</sup> or more than two-story high. Exception: Group R Detached one- two-family dwellings and townhouses as required by section 903.2.7

## Exception:

1. The elimination of sprinkler protection in the following areas are subject to approval by Fire Code Official. Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm system and are separated from the remainder of the building by fire barriers consisting of not less than 1-hour fire-resistance-rated walls and 2-hour fire-resistance-rated floor/ceiling assemblies.

**<u>2.Alteration:</u>** When the floor area of the Alteration within any two-year period exceeds 75% of area of the existing structure and the alteration includes structural modifications other than seismic upgrade.

**3.** Addition: Sprinkler protection shall be provided throughout the entire building when:

- 3. Existing building less than 5,000 ft<sup>2</sup>: where 20% or more is added and the gross floor areas exceeds 5,000 square feet.
- 4. Existing building equal or greater than 5,000 ft<sup>2</sup>: where more than 1,000 ft<sup>2</sup> is added.

**SECTION 903.2.7,** Group R, is hereby amended as follows:

Section 903.2.7. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R occupancy.

An automatic sprinkler system shall be installed throughout any existing building when the floor area of the Alteration within any two year period exceeds 50% of area of the existing structure and the building area exceeds 6,600 ft<sup>2</sup>. When the cost of installing an approved automatic sprinkler system exceeds 5% of the cost of the Alteration, with the approval of the fire code official, the required automatic sprinkler system may be omitted.

# Exceptions:

- 2. Detached <u>buildings containing two or less dwelling units with</u> one- and two family dwellings <u>less than 3,600 ft<sup>2</sup> (279 m<sup>2</sup>) (including attached U-occupancy garages)</u>, and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress, unless specifically required by other sections of this Code or classified as Group R-4.
- 3. Group U private garages accessory to a Group R-3 occupancy
- 5. Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the second floor, *and less than 3,600 square feet*.
- 6. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and building or portions thereof housing such children are not more than two stories in height, and thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
- 7. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

**SECTION 903.3.1.1.1**, Exempt locations, is hereby amended by deletion of exception 4 as follows:

5. In rooms or areas that are of noncombustible construction with wholly noncombustible contents.

**SECTION 903.4**, Sprinkler system monitoring and alarms, is hereby amended by modifying item 1, deleting item 5, and renumbering the Exceptions as follows:

- 1. Automatic sprinkler systems protecting one- and two-family dwellings <u>protected</u> <u>by NFPA 13D sprinkler system</u> with less than 100 sprinklers.
- 2. Limited area systems serving fewer than 20 sprinklers.
- 4. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
- 3. Jockey pump control valves that are sealed or locked in the open position.
- 5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open—position.
- 6. 6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
- 7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

**SECTION 905.4,** Location of Class I standpipe hose connections, is hereby amended by adding items 7 and 8 as follows:

7. The centerline of the 2.5" outlet shall be no less than 18" above and no more than 24" above the finished floor.

8.Every new building with any horizontal dimensions greater than 300 feet (91,440 mm) shall be provided with either access doors or a 2.5" outlets so that all portions of the building can be reached with 150 feet (45,720) of hose from an access door or hose outlet. Required access doors shall be located in the exterior of the building and shall be accessible without the use of a ladder. The door dimensions shall be not less than 3 feet (914 mm) in width, and not less than 6 feet 8 inches (2032 mm) in height.

Section 906 is hereby amended by adding a new section 906.1.1 to read as follows:

906.1.1 Marking of keys for Fire Department Access. Each key shall be color-coded, to identify its function, as follows:

- 1. Green for access gates.
- 2. Yellow for elevators.
- 3. Red for the Fire Control Room.
- 4. Blue for keys related to water access (i.e., gates to swimming pools).
- 5. White for master keys.

Keys that are required to access secured areas for a function not listed above, shall be provided with water-resistant tags. The tags shall be marked in a contrasting color with the key's function and room number. The terminology used to mark the tags shall provide immediate understanding as to the key function.

**SECTION 907.2.12**, High-rise buildings, is hereby amended as follows:

Section 907.2.12 High-rise buildings. High-rise buildings with a floor used for human occupancy located more than 75 55 feet (22 860 mm-16764 mm) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with Section 907.2.12.2.

### Exceptions:

- 6. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the International Building Code.
- 7. Open parking garages in accordance with Section 406.3 of the International Building Code.
- 8. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code.
- 9. Low-hazard special occupancies in accordance with Section 503.1.1 of the International Building Code.
- 10. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the International Building Code.

**SECTION 907.2.12.1**, Automatic fire detection, is hereby amended as follows:

Section 907.2.12.1 Smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall operate the emergency voice/alarm communication system. Duct smoke detectors shall operate as specified in Section 907.12. Smoke detectors shall be located as follows:

- 4. In each mechanical equipment, electrical, transformer, telephone equipment or similar room which is not provided with sprinkler protection, elevator machine rooms, and in elevator lobbies.
- 5. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m3/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.
- 6. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a listed smoke detector is allowed to be used in each return-air riser carrying not more than 5,000 cfm (2.4 m3/s) and serving not more than 10 air-inlet openings.

**SECTION 907.2.12.2,** Emergency voice/alarm communication system, I hereby amended as follows

Section 907.2.12.2 Emergency voice/alarm communication system. The operation of any automatic fire detector, sprinkler water-flow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation on a minimum of the alarming floor, the floor above and the floor below. in accordance with the building's fire safety and evacuation plans required by Section 404, Duct smoke detectors shall operate as specified in Section 907.12. Speakers shall be provided throughout the building by paging zones. As a minimum, paging zones shall be provided as follows:

- 1. Elevator groups.
- 2. Exit stairways.
- 3. Each floor.
- 4. Areas of refuge as defined in Section 1002.1.
- 5. Dwelling Units in apartment houses.
- 6. Hotel guest rooms or suites.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

**SECTION 907.9.3** High-rise buildings, is hereby amended as follows:

Section 907.9.3 High-rise building. In buildings with a floor used for human occupancy that is located more than <del>75</del> 55 feet (<del>22 860 mm</del>-16764 mm) above the lowest level of fire

department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

- 1. Smoke detectors.
- 2. Sprinkler water-flow devices.
- 3. Manual fire alarm boxes.
- 4. Other approved types of automatic fire detection devices or suppression systems.

### **SECTION 907.12** Duct smoke detectors, is hereby amended as follows:

Section 907.12 Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is provided. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location. Duct smoke detectors shall not be used as a substitute for required open area detection. Exception:

- 1. The supervisory signal at a constantly attended location is not required where duct smoke detectors activate the building's alarm notification appliances.
- 2. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

# **SECTION 910.3.2.2** Sprinklered buildings, is hereby amended as follows:

Section 910.3.2.2 Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at least 100° F above the operating temperature of the sprinkler

# Chapter 11 Aviation Facilities

### **SECTION 1102.1** is hereby amended by adding the following definitions:

APPROACH-DEPARTURE PATH. The flight path of the helicopter as it approaches or departs from the landing pad.

<u>EMERGENCY HELICOPTER LANDING FACILITY (EHLF</u>). A landing area on the roof of a high rise building that is not intended to function as a heliport or helistop but is capable of accommodating fire or medical helicopters engaged in emergency operations. Federal Aviation Administration (FAA) approval is not required <u>for an EHLF.</u>

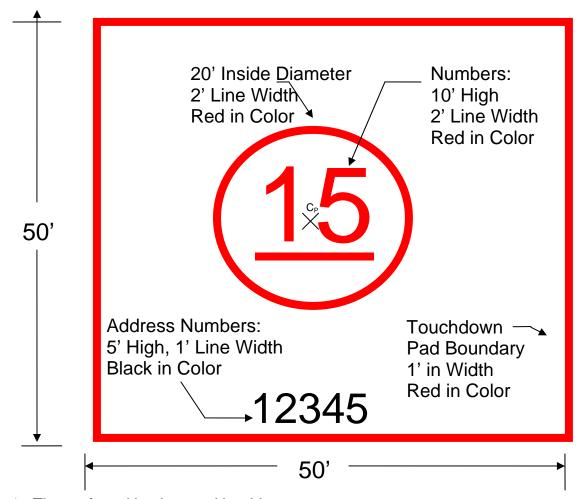
<u>SAFETY AREA.</u> A defined area surrounding the landing pad which is free of obstructions.

TAKEOFF AND LANDING AREA. The combination of the landing pad centered within

the surrounding safety area.

- **SECTION 1108,** EHLF, is hereby amended by adding the following subsections:
- **SECTION 1108.1, General.** EHLF shall meet or exceed the following minimum requirements and the California Building Code.
- Section 1108.1 Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 ft above the lowest level of the fire department vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by the fire code official for use by fire, police, and emergency medical helicopters only.
- **Section 1108.2 Rooftop Landing Pad.** The landing pad shall be 50 ft. x 50 ft. or a 50 ft. diameter circle that is pitched or sloped to provide drainage away from access points and passenger holding areas at a slope of 0.5 percent to 2 percent. The landing pad surface shall be constructed of approved non-combustible, nonporous materials. It shall be capable of supporting a helicopter with a maximum gross weight of 15,000 lbs. For structural design requirements, see California Building Code.
- <u>Section 1108.3 Approach-Departure Path.</u> The emergency helicopter landing facility shall have two approach-departure paths separated in plan from each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing pad and is a rising slope extending outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.
  - <u>Section 1108.4 Safety Area.</u> The safety area is a horizontal plane level with the landing pad surface and shall extend 25 ft in all directions from the edge of the landing pad. No objects shall penetrate above the plane of the safety area.
  - <u>Section 1108.5 Safety Net.</u> If the rooftop landing pad is elevated more than 30 in. (2'-6") above the adjoining surfaces, a 6 ft in wide horizontal safety net capable of supporting 25 lbs/psf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing pad shall be slightly dropped (greater than 5 in. but less than 18 in.) below the pad elevation. The safety net shall slope upward but the outer safety net edge shall not be above the elevation of the landing pad.
  - **Section 1108.6 Take-off and Landing Area.** The takeoff and landing area shall be free of obstructions and 100 ft x 100 ft. or 100 ft. diameter.
  - <u>Section 1108.7 Wind Indicating Device.</u> An approved wind indicating device shall be provided but shall not extend into the safety area or the approach-departure paths.

- <u>Section 1108.8 Special Markings</u>. The emergency helicopter landing facility shall be marked as indicated in Figure 1108.8.1
- <u>Section 1108.9 Means of Egress</u>. The means of egress from the landing pad shall comply with the provisions of Chapter 10 of the California Building Code. Landing areas located on buildings or structures shall have two or more means of egress. For landing areas less that 60 feet in length, or less than 2,000 square feet in area, the second means of egress may be a fire escape or ladder leading to the floor below.
- <u>Section 1108.10 Standpipe systems.</u> The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5-inch outlet on a Class I or III standpipe.
- <u>Section 1108.11 Fire extinguishers.</u> A minimum of one portable fie extinguisher having a minimum 80-B:C rating shall be provided and located near the stairways or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety area. Installation, inspection, and maintenance of extinguishers shall be in accordance with the CFC, Section 906.
- <u>Section 1108.13 EHLF.</u> Fueling, maintenance, repairs, or storage of helicopters shall not be permitted.



- 1. The preferred background is white or tan.
- 2. The circled, red numbers indicate the allowable weight that the facility is capable of supporting in thousands of pounds.
- 3. The numbers shall be oriented towards the preferred flight (typically facing the prevailing wind).

# Chapter 17 Fumigation and Thermal Insecticidal Fogging

**SECTION 1701.1,** Fumigation and Thermal Insecticidal Fogging, is hereby deleted and replaced with the following:

<u>Section 1701.1</u> Scope. Fumigation and thermal insecticidal fogging operations shall be in accordance with Divisions 6 and 7 of the Food and Agriculture Code of the State of California.

**SECTION 1701.2,** Permits, is hereby deleted and replaced with the following:

Section 1701.2 Notification of Fumigation. The fire code official shall be notified in writing at least 24 hours before any building or structure is to be closed in connection with the use of toxic or flammable fumigants.

# Chapter 19 Lumber Yards and Woodworking Facilities

**SECTION 1901.2,** Permit, is hereby amended by adding the following statement to the last sentence:

Section 1901.2 Permit. Permits shall be required as set forth in Appendix Chapter 1, Section 105.6. For Section 1908 see Miscellaneous Combustible Storage Permit.

**SECTION 1908.2**, Storage site, is hereby amended as follows:

Section1908.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from fire code official obtained before transferring wood-products to the site.

**SECTION 1908.3**, Size of piles, is hereby amended as follows:

Section 1908.3 Size of piles. Piles shall not exceed 25-15 feet in height, 150-50 feet in width and 250-100 in length.

**SECTION 1908.7,** Pile fire protection, is hereby amended by adding the following statement to the last sentence: ... Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

**SECTION 1908.9,** Material handling equipment, is hereby amended by adding the following sentence at the beginning of the section:

Section 1908.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. ... (remainder unchanged).

# **Chapter 23 High-Piled Combustible Storage**

**SECTION 2308.3**, Flue spaces, is hereby amended by adding the following statement to the last sentence:

Section 2308.3 Flue spaces. Flue spaces shall be provided in accordance with Table 2308.3. Required flue spaces shall be maintained. In double-row racks a pallet/commodity stop shall be

provided along the longitudinal flue space at each level. The stop shall be steel or other ferrous material ¼" thick and in the mounted position shall extend a minimum of 4 inches above the shelve or cross member, or other method approved by fire code official

# Chapter 27 Hazardous Materials – General Provisions

**SECTION 2701.5.2,** Hazardous Materials Inventory Statement, is hereby amended by modifying the starting paragraph as follows:

Section 2701.5.2 Hazardous Materials Inventory Statement. When required by the fire code official, an City of Perris Chemical Classification Packet shall be completed and approved prior to approval of plans, and/or the storage, use or handling of chemicals on the premises.

**Table 2703.1.1(1),** Maximum Allowable Quantity Per Control Area, is hereby amended by deleting Footnote K as follows:

(k) A maximum quantity of 200 pounds of solid or 20 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of equipment when storage containers and the manner of storage are approved.

**SECTION 2703.1.1,** Maximum allowable quantity per control area, is hereby amended by adding a new subsection as follows:

Section 2703.1.1.1 Extremely Hazardous Substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Section 25115 of the Health and Safety Code) (see Health and Safety Code Section 25500 et al) in a residential zoned or any residentially developed property.

**SECTION 2703.5,** Hazard identification signs, is hereby amended by modifying the NFPA standard as follows:

Section 2703.5 Hazard identification signs. *Unless otherwise exempted by the fire code official, visible hazard identification signs as specified in NFPA 704*-the City of Perris Signage Guidelines for the... (remainder unchanged)

# Chapter 32 Cryogenic Fluids

**SECTION 3203.4.1**, Identification signs, is hereby amended by modifying the NFPA standard as follows:

Section 3203.4.1 identification signs. *Visible hazard identification signs in accordance with NFPA 704 the* City of Perris Signage Guidelines shall be provided at entrances to

buildings or areas in which cryogenic fluids are stored, handled or used.

**SECTION 3204.3.2, Label or placard,** is hereby amended by modifying the NFPA standard as follows:

Section 3404.3.2 Label or placard. *Tanks more than 100 gallons in capacity, which are permanently installed or mounted and used for the storage of Class I, II or IIIA liquids, shall bear a label and placard identifying the material therein. Placards shall be in accordance with NFPA 704* the City of Perris Signage Guidelines.

# Chapter 33 Explosives and Fireworks

The following sections are added to Chapter 33 as follows:

Section 3309 Firing. All fireworks displays shall be electrically fired.

<u>Section 3310</u> Seizure of Fireworks. The fire code official shall have the authority to seize, take, remove and fireworks stored, sold, offered for sale, used or handled in violation of the provisions of Title 19 CCR, Chapter 6. Any seizure or removal pursuant to this section shall be in compliance with all applicable statutory, constitutional, and decisional law.

<u>Section 3311</u> Displays. Fireworks displays shall be in accordance with the City of Perris Guidelines for Public Fireworks Displays, with the regulations of the State Fire Marshal, and with the conditions of the permit as approved by the fire code official.

<u>Section 3312</u> Retail Fireworks. The storage, use, sale, possession, and handling of fireworks 1.4G (commonly referred to as Safe & Sane) and fireworks 1.3G is prohibited.

<u>Exception</u> – Fireworks 1.4G and fireworks 1.3G may be part of an electrically fired public display when permitted and conducted by a licensed pyrotechnic operator.

# Chapter 37 Highly Toxic and Toxic Materials

**SECTION 3704.2.2.7.** is hereby amended by deleting exception 1 without substitution and renumbering 2 to 1 with noted modifications as follows:

- 1. Highly toxic and toxic gases storage. A treatment system is not required for cylinders, containers and tanks in storage when all of the following controls are provided:
- 1.2 Handwheel-operated valves have handles secured to prevent movement.
- 1.3 Approved containment vessels or containment systems are provided in accordance with Section 3704.2.2.3.
- 2. 1. Toxic gases <u>storage/use</u>. Treatment systems are not required for toxic gases

supplied by cylinders or portable tanks not exceeding 1,700 pounds water capacity when the following are provided:

- 2.1—1.1 A gas detection system with a sensing interval not exceeding 5 minutes.
- 1.1 1.2 For storage, valve outlets are equipped with gas-tight outlet plugs or caps.
- a. <u>1.3 For use</u>, an approved automatic-closing fail-safe valve ...(remainder unchanged)

# Chapter 45

CALIFORNIA STANDARDS is hereby amended by revising Section 4501—Amendments to National Fire Protection Association Standards, by clarifying that the standards and amendments apply to all systems in all occupancies, and the following:

NFPA 13, 2002 Edition, Installation of Sprinkler Systems is hereby amended as follows:

### Section 6.8.5 is hereby revised as follows:

**6.8.5** Fire department connections <u>(FDC)</u> shall be of an approved type. The FDC shall contain a minimum of two 2 ½" inlets. The location shall be approved and be no more than 150 feet from a public hydrant. The size of piping and the number of inlets shall be approved by the chief. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided. FDC may be located within 150 feet of a private fire hydrant when approved by the chief.

## Section 8.3.3.1 is hereby revised as follows:

**8.3.3.1.** When fire sprinkler systems are installed in shell buildings of undetermined use (Spec Buildings) other than warehouses (S occupancies), fire sprinklers of the quick-response type shall be used. Use is considered undetermined if a specific tenant/occupant is not identified at the time the permit is issued. Sprinklers in light hazard occupancies shall be one of the following:...

### Section 8.6.5.2.1.4 is hereby deleted without replacement:

### Section 8.15.1.1.2.4 is hereby deleted in its entirety and replaced as follows:

8.15.1.1.2.4 Control valves shall be installed and positioned so that they are operable not more than 7 feet above the finished floor.

Section 8.15.1.3.3 is hereby added as follows:

<u>8.15.1.3.3</u> Post indicator valve(s) shall be located as specified in NFPA 24.

Section 8.15.1.5 is hereby revised as follows:

8.15.1.5.1 Large private fire service main systems shall have sectional indicating controlling valves at appropriate points when the system serves more than four appurtenances in order to permit sectionalizing the system in the event of a break or for making of repairs or extensions. A hydrant or a single fire line service to a building counts as one appurtenance.

### Section 8.16.2.4.6 is hereby revised as follows:

**8.16.2.4.6** Fire department connections (FDC) shall be on the street side of buildings and shall be located and arranged so that they are immediately adjacent to the approved fire department access road and that hose lines can be readily and conveniently attached to the inlets without interference from nearby objects including buildings, fence, posts, or other fire department connections. Address shall be painted on the FDC with a sign. The sign shall be 12"X12" in size with a red background color and with white reflective lettering and numbers. The lettering shall be 3"X1/2" in size stating "FDC" and the numbers shall be 21/2"X7/16" in size.

Section 9.1.3.9 is hereby revised as follows:

**9.1.3.9.1** Powder-driven studs *prohibited.*, welding studs, and the tools used for installing welding studs these devices shall be listed.

**Section 9.1.3.9.2** is hereby deleted without replacement:

**Section 9.1.3.9.3** is hereby deleted without replacement.

**Section 9.1.3.9.4** is hereby deleted without replacement.

**Section 9.3.5.8.11** is hereby revised as follows:

**9.3.5.8.11\*** Other pipe schedules and material not specifically included in Table 9.3.5.8.9 (a), Table 9.3.5.8.9 (b), and Table 9.3.5.8.9 (c) shall be permitted to be used if certified by a registered professional engineer to support the loads determined in accordance with the above criteria. Calculations shall be submitted where required by the authority having jurisdiction.

**FIGURE 9.3.9.5.1** is hereby amended by deleting the portion relating to lag screws and lag bolts in wood

### Section 9.3.7.8 is hereby revised as follows:

**9.3.7.8** Powder-driven fasteners shall not be used to attach braces to the building structure. <del>unless they are specifically listed for service in resisting lateral loads in the areas subject to</del>

### Section 11.1.3 is hereby added as follows:

<u>11.1.3</u> When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction/s in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 12.3.2.1.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the permit is issued. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the occupant to upgrade the system to the required density for the new occupancy.

# Section 11.2.3.1.1.1 is hereby added as follows:

- **11.2.3.1.1.1** The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the chief or office of the Fire Marshal.
  - 1) Subtract the project site elevation from the low water level for the appropriate pressure zone and multiplying the result by 0.433;
  - 2) Use a maximum of 40 psi, if available;
  - 3) Utilize the Riverside County Fire Authority water flow test form/directions to document a flow test conducted by the local water agency or a professional engineer licensed in the State of California. The result shall be adjusted in accordance with the graduated scaled found in the guideline.

# SECTION 14.1.3 (43) is hereby revised as follows:

Section 14.1.3 (43). Size and location of hydrants, showing the size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in the flow tests shall be shown. Flow test shall be completed within six months of the plan submittal to the authority having jurisdiction.

# NFPA 13D, 2002 Edition, Installation of Sprinkler Systems in One-and Two-Family **Dwellings and Manufactured Homes** is hereby amended as follows:

# Section 4.2.5 is hereby added as follows:

## 4.2.5 Stock of Spare Sprinklers

## Section 4.2.5.1 is hereby added as follows:

<u>4.2.5.1</u>. A supply of at least two sprinklers for each type shall be maintained on the premises so that any sprinklers that have operated or been damaged in any way can be promptly replaced.

### Section 4.2.5.2 is hereby added as follows:

<u>4.2.5.2</u> The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

## Section 4.2.5.3 is hereby added as follows:

<u>4.2.5.3</u> The sprinkler shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100 °F (38°C).

# Section 4.2.5.4 is hereby added as follows:

<u>4.2.5.4</u> A special sprinkler wrench shall be provided and kept in the cabinet to be used in the removal and installation of sprinklers. One sprinkler wrench shall be provided for each type of sprinkler installed.

# Section 7.1.2 is hereby revised as follows:

- 7.1.2 The separate system piping shall not have a separate control valve unless supervised by a central station, proprietary, or remote station alarm service. one of the following methods:
- (1) Central station, proprietary, or remote station alarm service.
- (2) Local alarm service that causes the sounding of an audible signal at a constantly attended location
- (3) Valves that are locked open.

**SECTION 7.3 -- Pressure Gauges** is hereby deleted and substituted with the following:

# Section 7.3.1 is hereby deleted in its entirety and replaced as follows:

**7.3.1** At least one water pressure gauge shall be installed on the riser assembly.

**Section 7.6** is hereby deleted in its entirety and replaced as follows:

7.6 Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the Chief.

Additional interior alarm devices shall be required to provide audibility throughout the structure. Sound levels in all sleeping areas with all intervening doors closed shall be a minimum of 15 DBA above the average ambient sound level but not less than 70 DBA.

Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exception #1: When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.

Exception #2: When smoke detectors specified under CBC Section 310.9 are used to sound an alarm upon waterflow switch activation.

# Section 8.2.4 is hereby revised as follows:

**8.2.4** Sprinklers shall be positioned so that the response time and discharge are not unduly affected by obstructions such as ceiling slopes, beams, or light fixtures. official. In rooms or areas with slopes, multiple beams or construction features creating conditions where sprinklers are obstructed, or the sprinkler head placement exceeds parameters specified in the products listing, the plans shall be reviewed and approved by the fire

### Section 8.6.4 is hereby revised as follows:

**8.6.4 Sprinklers** shall not be required in <del>garages,</del> open attached porches, carports and similar open structures.

## Section 8.6.4.1 is hereby added as follows:

Section 8.6.4.1 Attached garages shall be protected with listed quick response fire sprinklers, spaced to protect a maximum area of 130 square feet (12.1 m2). The diameter of the main or cross-main piping serving the lines in the garage shall be equal to the largest diameter piping on any main or cross main within the system.

# Section 8.6.4.2 is hereby added as follows:

**8.6.4.2** All attics shall be protected with an intermediate temperature quick response sprinkler which shall be located to protect attic penetrations created by the access scuttles or mechanical equipment

NFPA 13R, 2002 Edition, Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height is hereby amended as follows:

### Section 6.6.8.1 is hereby revised as follows:

**6.6.8.1** A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Section 100907.2.8of the 2007 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be minimum of 15 DBA above the average ambient sound or a minimum of 70 DBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for overcurrent protection) serving normally operated appliances in the residence.

There shall also be a minimum of one exterior alarm indicating device, listed for outside service and audible from the access roadway that serves that building.

# Section 6.7.1.5.3 is hereby revised as follows:

**6.7.1.5.3** Sprinklers shall be positioned so that the response time and discharge are not unduly affected by obstructions such as ceiling slope, beams, or light fixtures. In rooms or areas with slopes, multiple beams or construction features creating conditions where sprinklers are obstructed, or the sprinkler head placement exceeds parameters specified in the products listing, the plans shall be reviewed and approved by the fire official.

## Section 6.8.5 is hereby revised as follows:

**Section 6.8.5** Sprinklers shall not be required in attices, penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, elevator shafts, and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel fired equipment.

### Section 6.8.5.1 is hereby added as follows:

**6.8.5.1** Sprinklers shall not be required in attics that are not located over dwelling units. When attics are separated by unit, each unit's attic space may be protected per NFPA 13D Section 8.6.4.2. All other attics shall be protected per NFPA 13.

NFPA 14, 2003 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:

### Section 6.3.5.4.1 is hereby deleted in its entirety and replaced as follows:

**6.3.5.4.1** The fire department connection shall have a minimum of two 2 ½", internal threaded (NHS) inlets. Additional inlets shall be provided on a 250 GPM per inlet ratio to meet the system demand. The inlets shall be provided with approved caps to protect the system from entry of debris. The location of the FDC shall be approved and be no more than 150 feet from a public hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red.

Section 7.3.1 is hereby is deleted in its entirety and replaced as follows:

**7.3.1 Hose Connection Height** Class I and III Standpipe hose connections shall be unobstructed and shall be located not less than 18 inches or more than 24 inches above the finished floor. Class II Standpipe hose connections shall be unobstructed and shall be located not less than 3 feet or more than 5 feet above the finished floor.

### **NFPA 24 AMENDED**

NFPA 24, 2002 Edition, Installation of Private Fire Service Mains and Their Appurtenances is hereby amended as follows:

### Section 4.2.1 is hereby revised as follows:

4.2.1. Installation work shall be performed by fully experienced and responsible person contractor. The contractor shall licensed in the state to do to install fire service mains.

# Section 4.2.2 is hereby revised as follows:

**4.2.2** Installation or remodeling of private fire service mains shall not begin until plans are approved and appropriate permits secured from the authority having jurisdiction shall always be consulted before the installation or remodeling of private fire service mains.

## Section 5.5 is hereby revised as follows:

- **5.5** Connections *larger than 2 inches* to public water systems shall be controlled by post indicator valves of an approved type and installed in accordance with the requirements of Section 6.3. *Where the water authority has regulations regarding the connection of private fire service mains, they shall apply. Where the water authority requires back-flow protection the following methods or assemblies are acceptable:* 
  - 1. An above ground assembly approved by the water authority, painted OSHA safety red, and with the valves locked in the open position. Valves controlling more than 100 sprinkler heads shall be monitored to an approved location.
  - 2. A below ground assembly approved by the water authority and located in an approved vault. The last valve on the assembly shall be controlled by an approved post indicator device (see Figure A-2.6 b). The post indicator device shall be painted OSHA safety red, be locked in the open position and if controlling more than 100 sprinkler heads monitored to an approved location.

### Section 5.9.1.2 is hereby revised as follows:

**5.9.1.2** Fire department connections shall be properly supported and *protected from mechanical injury*.

### Section 5.9.1.3 is hereby revised as follows:

**5.9.1.3** The fire department connection shall be of an approved type and contain a minimum of two 2 ½" inlets. The location shall be approved and be no more than 150 feet from a public fire hydrant. The size of piping and the number of inlets shall be approved by the chief. If acceptable to the water authority, it may be installed on the backflow assembly. The supply pipe shall be painted OSHA safety red.

### Section 5.9.1.3.1 is herby added as follows:

**5.9.1.3.1** When the sprinkler density design is 500 gpm (including the interior hose stream demand) or greater, or a standpipe system is included, four  $2\frac{1}{2}$ " inlets shall be provided.

### Section 5.9.1.3.2 is hereby added as follows:

**5.9.1.3.2** The fire department connection (FDC) may be located within 150 feet of a private fire hydrant provided the FDC connects down-stream of an aboveground sprinkler system check valve.

### Section 5.9.2.5 is hereby added as follows:

**5.9.2.5** *The fire department connection shall be a listed assembly.* 

### Section 5.9.5.1 is hereby revised as follows:

**5.9.5.1** Fire department connections shall be on the street side of building and so *they are located immediately adjacent to the approved fire department access road.* 

### Section 6.3.3.2 is hereby revised as follows:

- 6.3.3.2 Where post indicator valves cannot be located in accordance with 6.3.3.1, they shall be permitted to be located closer where approved by the authority having jurisdiction, or:
- 1.) Wall post indicating valves: shall be located on exterior walls without building openings within 15 feet of the valve.
- 2.) Valve room: When it is placed in valve rooms separated from the building by a one-hour fire-barrier accessible only from the exterior.
- 3.) Exterior risers: They may be set in locations adjacent to exterior walls without openings within 15 feet of the valve.

## Section 6.5.1 hereby revised as follows:

6.5.1 Large, private, fire service main systems shall have indicating sectional controlling valves at appropriate points after four appurtenances to permit sectionalizing the system in the event of a break or for making of repairs or extensions. A hydrant or a single fire line service to a building counts as one appurtenance.

### Section 10.1.6.3 is hereby added as follows:

10.1.6.3 All ferrous pipe shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mill polyethylene tube. The ends of the tube shall be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

## Section 10.3.6.2 is hereby revised as follows:

**10.3.6.2** All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material, *prior to poly-tube, and* after installation.

**Section 10.3.6.3** is hereby added as follows:

10.3.6.3 All bolts used in pipe-joint assembly shall be stainless steel.

Section 10.6.1.1 is hereby added as follows:

10.6.1.1 Pipe may run under a building to a maximum of 18 inches, measured from the interior of the exterior wall. The pipe under the building or building foundation shall be stainless steel and shall not contain mechanical joints or comply with 10.6.2.

Section 10.8.2.5 is hereby added as follows:

10.8.2.5 The trench shall be excavated for thrust blocks and inspected prior to pour. Care shall be taken when forming and pouring thrust blocks that fittings and joints are not buried in concrete.

Section 10.9.1 is hereby revised as follows:

10.9.1 Backfill shall be tamped in layers and wetted or puddled under and around pipe to prevent settlement or lateral movement and shall contain no ashes, cinders, refuse, organic matter, or other corrosive materials. Backfill shall consist of clean fill sand or pea gravel to a minimum 6" below and to a minimum of 12" above the pipe.

# **Appendix Chapter 1 Administration**

**Adopt Appendix Chapter 1,** Administration, with the following modifications:

**SECTION 102.9**, Conflicting Provisions, is hereby deleted and replaced with the following:

Section 102.9 Conflicting Provisions. Where there is a conflict between a general requirement and a specific requirement, the fire code official shall decide which\_requirement meets the general intent of this code.

**SECTION 105.6**, Required Operational Permits is hereby amended by modifying and deleting permit categories as follows:

Subsection 105.6.29. Miscellaneous combustible storage. Permit is required to store in any building or upon any premise in excess of 2500 cu. ft. gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, *composting*, *green waste*, or similar combustible material.

Subsection 105.6.15. Fire hydrants and valves. Delete without substitution. Subsection 105.6.35 Private fire hydrants. Delete without substitution.

**SECTION 109.3**, Violation penalties, is hereby amended and by adding new Sections 109.3.2, Infraction, 109.3.3, Misdemeanor, as follows:

Section 109.3 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of *either a misdemeanor, infraction* 

or both as prescribed in Section 109.3.2 and 109.3.3. Penalties shall be as prescribed in local ordinance. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 109.3.3 Misdemeanor. Persons who fail to take immediate action to abate a fire or life safety hazard when ordered or notified to do so by the fire code official or a duly authorized representative, or who violate the following sections of this code, shall be guilty of a misdemeanor:

109.2.2 Compliance with Orders, Notices and Tags 107.6 Overcrowding 104.11.2 Obstructing operations 104.11.3 Systems and Devices 111.4 Failure to comply 305.4 Deliberate or negligent burning

308.2.1Throwing or placing sources of ignition

310.7 Burning Objects

2404.7 Open or exposed flame

# Appendix B Fire Flow Requirements for Buildings

Appendix B is adopted with the following modifications:

**SECTION B105.2,** Buildings other than one- and two- family dwellings, is hereby amended a follows:

A reduction in fire-flow of up to 75 50 percent, as approved by the fire code official, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute (5677.5 L/min) for the prescribed duration as specified in Table B105.1

# Appendix C Fire Hydrant Locations and Distributions

Appendix C is adopted with the following modifications:

**Table C105.1**, Maximum distance from any point on the street or fire department access to a hydrant. d,f,g

**Table C105.1,** footnote f is added as follows:

Fire hydrants shall be a minimum of 40 feet (12 192 mm) from building with exception of detached one and two-family dwellings.

**Table C105.1,** footnote g is added as follows:

In residential single family subdivisions, maximum hydrant spacing is 300feet. This spacing may be increased to 600 feet (182 880mm) if all the homes and attached garages are protected with automatic fire sprinklers systems with a minimum fire flow of 2,000 gpm.

The Mayor shall sign the Ordinance and the City Clerk shall certify to the passage and adoption of this Ordinance, and shall cause the same to be published and posted pursuant to the provisions of law in this regard, and this Ordinance shall take effect on January 1, 2008.

ADOPTED, signed AND approved this 27<sup>th</sup> day of November, 2007.

		Mayor, Daryl R. Busch
City Clerk, Judy L. Haughney		
STATE OF CALIFORNIA )	~~	
COUNTY OF RIVERSIDE )	SS	
CITY OF PERRIS		

I Judy Haughney, CITY CLERK OF THE CITY OF PERRIS, DO HEREBY CERTIFY that the FOREGOING Ordinance Number 1230 was duly and regularly introduced at a regular meeting of the City Council of the City of Perris held on the 13<sup>th</sup> day of November, 2007, and was duly and regularly adopted by the City Council of the City of Perris at a regular meeting thereof held on the 27<sup>th</sup> day of November, 2007, and that it was so adopted by the following called vote:

AYES: Motte, Rogers, Yarbrough, Landers, Busch

NOES: ABSENT: None None

City Clerk, Judy L. Haughney