

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



January 27, 2014

Robert Stefano, Svcs. Deputy Chief, Fire Marshal
Fire Department
City of Orange
176 S. Grand Street
Orange CA, 92866-1591

RE: Ordinance #16-13

Dear Mr. Stefano:

This letter is to advise you of our determination regarding the referenced ordinance with express findings received from your agency on December 19, 2013.

Our review finds the submittal to contain one ordinance modifying provisions of the 2013 California Building Standards Code in Title 24, California Code of Regulations (code), and express findings complying with Health and Safety Code §§17958.7 and 18941.5. The code modification is accepted for filing and is enforceable. This letter attests only to the satisfaction of the cited law for filing of local code amendment supported by an express finding with the Commission. The Commission is not authorized by law to evaluate the merit of the code modification or the express finding.

Local modifications to the code are specific to a particular edition of the code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the code is published.

On a related matter, should your city receive and ratify Fire Protection District ordinances making modifications to the code, be advised that Health and Safety Code §13869.7(c) requires such ratified ordinances and express findings to be filed with the Department of Housing and Community Development, Division of Codes and Standards, State Housing Law Program, rather than this Commission. Also, ordinances making modifications to the energy efficiency standards of the code may require approval from the California Energy Commission pursuant to Public Resources Code §25402.1(h)(2).

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

A handwritten signature in blue ink that reads "Enrique M. Rodriguez".

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings



ORANGE CITY FIRE

FIRE DEPARTMENT

PHONE: (714) 288-2500 • FAX: (714) 744-6035

www.cityoforange.org

December 17, 2013

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Dear Commissioners,

Enclosed is a copy of our recent 2013 California Fire Code adoption, amendments, findings, and the resolution adopting the findings. I am submitting this to you in compliance with CCR T-24, incorporating the latest editions of the model codes.

This submittal is made according to California Building Standards Law which states the following: "The amendments are neither effective nor operative until copies of both the express findings and the amendments, with the amendments expressly marked and identified as to the applicable findings, have been filed with the California Building Standards Commission".

If you have any questions or require further information, I can be reached at (714) 288-2541 Monday through Thursday 7am - 5pm.

Respectfully,

A handwritten signature in black ink that reads "R Stefano".

Robert Stefano
Services Deputy Chief/ Fire Marshal

Enclosures

2013 California Fire Code
 City of Orange Local Amendments
 Findings Matrix

CODE SECTION	TITLE (Clarification)	FINDINGS I,II,III
101.1	Title	Admin
103.2	Appointment	Admin
105.1.1	Permits required	Admin
105.4.2	Information on construction documents	Admin
105.6.29	Miscellaneous combustible storage	Admin
105.6.48	Day-care	Admin
105.6.49	Day-care, large family	Admin
105.6.50	High-rise buildings	Admin
109.2.1	Fire and life safety hazards	Admin
109.4	Violation penalties	Admin
202	General definitions (Flow-Line, Hazardous Fire Area, High-Rise Building)	III A; III B
304.1.2	Vegetation	IA-D; IIA
304.4	Disposal of rubbish	N/A
305.5	Chimney spark arrestors	I & II
305.6	Outdoor fires	N/A
307.1.2	Fuel Modification Area	N/A
307.2.3	Where prohibited	N/A
307.5.1	Supervision	N/A
307.2.2	Hazardous conditions	N/A
307.6	Outdoor Fireplaces, Fire Pits, Fire Rings, and Outdoor Fireplaces	N/A
307.6.1	Gas-fueled devices	I & II

307.6.2	Devices using wood or fuels other than natural gas or LPG	I & II
307.6.2.1	Where prohibited	I & II
319	Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors	III
320	Fuel modification requirements for new construction	N/A
321	Clearance of brush or vegetation growth from roadways	N/A
322	Unusual circumstances	N/A
323	Use of equipment	N/A
323.1	Spark arrestors	N/A
324	Restricted entry (In hazardous area)	N/A
325	Trespassing on posted property	N/A
326	Sky Lanterns or similar devices	I & II
503.2.1	Dimensions (Fire Lanes)	N/A
503.2.1.1	Hazardous fire areas	N/A
503.2.2	Divided fire access roads	N/A
503.6	Security gates	N/A
505.1	Address identification	II B; II B
505.1.1	Building complexes	II B; II B
510.1	Emergency responder radio coverage in new buildings	III A
510.2	Emergency responder radio coverage in existing buildings	Admin
510.3	Permit Required	Admin
510.4	Technical requirements	Admin
510.5	Installation requirements	Admin
510.6	Maintenance	Admin
606.10.2	Scope	IB; III A; II B
608.1	Scope (Battery Systems)	IB; III A; II B
608.10	Indoor charging of electric carts/cars	IB; III-A; II B

901.6.1.1	Maintenance of smoke alarms in apartment buildings	Admin
903.2	Where required (Sprinklers)	IB; IA; IB; IC; IIIA; III-B
903.3.5.3	Hydraulically calculated systems	IB; IA; IB; IC; IIIA; III-B
903.4	Sprinkler system supervision and alarms (of valves)	IB; IA; IB; IC; IIIA; III-B
903.4.3	Locking of control valves	IB; IA; IB; IC; IIIA; III-B
905.4	Location of Class I standpipe hose connections	III-A
907.2.13	High-rise buildings (Alarm Systems)	Admin
907.3.1	Duct smoke detectors	IB; IC; III-A; IIIB
907.5.2.2	Emergency voice/alarm communication system	IB; IC; III-A; IIIB
907.6.3.2	High-rise buildings	Admin
907.6.5.4	Monitoring of fire-extinguishing systems	IB; IC; III-A; IIIB
2808.2	Storage site	N/A
2808.3	Size of piles	N/A
2808.7	Pile fire protection	N/A
2808.9	Material-handling equipment	N/A
2808.11	Temperature control	N/A
2808.11.1	Pile temperature control	N/A
2808.11.2	New material temperature control	N/A
4906.3	Vegetation	N/A
4908	Fuel modification requirements for new construction	N/A
5001.5.1	Hazardous Materials Management Plan (HMMP)	Admin
5001.5.2	Hazardous materials inventory statement (HMIS)	Admin
5003.1.1(1)	Maximum allowable quantity per control area	III & III
5003.1.1.1	Extremely hazardous substances	IB; IA; IB; IC; IIIA; IIIB
5004.12	Noncombustible floor	IIIA; III-B
5601.2	Retail fireworks	N/A
5601.3	Seizure of fireworks	N/A

5602	Explosives prohibited	N/A
5608.1	General (Fireworks)	N/A
5608.2	Firing (Fireworks)	N/A
5612	Displays (Fireworks)	N/A
5704.2.9.6.1	Location where above-ground tanks are prohibited	Admin
5704.2.11	Underground tanks	Admin
6004.2.2.7	Treatment systems (Highly toxic & toxic material)	IIA; IIIA; IIIB
Chapter 50	Reference Standards	
	2010 NFPA 13 (Sprinkler Systems)	Admin, IB; IC; IIB; IIC; IIIA; IIIB
	2010 NFPA 13-R (Multi-Family Sprinkler Systems)	IB; IC; IIB; IIC; IIIA; IIIB
	2010 NFPA 13-D (Single Family Sprinkler Systems)	IB; IC; IIB; IIC; IIIA; IIIB
	2007 NFPA 14 (Standpipe Systems)	IB; IC; IIB; IIC; IIIA; IIIB
	2010 NFPA 24 (Underground Water Supply Systems)	IB; IC; IIB; IIC; IIIA; IIIB; IIC
	2010 NFPA 72 (Fire Alarm Systems)	Admin; IB; IIB; IIIA; IIIB
C101.1	Scope (Fire Hydrants)	IB; IIB; IIIA; IIIB

2013
California Fire Code

City of Orange
Expressly Marked
Amendment Package

Section 101.1 Amended – Title.

101.1 Title. These regulations shall be known as the Orange Fire Code of [NAME OF JURISDICTION], hereinafter referred to as “this code.”

Section 103.2 Amended – Appointment.

103.2 Appointment. The fire code official shall be appointed by the fire chief and may be removed at any time. ~~authority and jurisdiction; and the fire code official shall not be removed from office except for cause and after a full opportunity to be heard on specific and relevant charges by and before the appointing authority.~~

Section 105.1.1 Amended – Permits required.

105.1.1 Permits required. ~~Any property owner or authorized agent who intends~~ When a permit is required by this code, a current permit conforming to the requirements of Section 105 shall be required to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done, ~~shall first make application to the fire code official and obtain the required permit.~~

Section 105.4.2 Amended – Information on construction documents.

105.4.2 Information on construction documents. Construction documents shall be drawn to scale upon suitable material. ~~Electronic media documents are allowed to be submitted when approved by the fire code official.~~ Plans shall be submitted in both paper and electronic formats as detailed in the City of Orange Fire Department Plan Submittal Guidelines. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail but it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations as determined by the fire code official.

Section 105.6.29 Amended – Miscellaneous combustible storage.

105.6.29. Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, green waste, composting, yard waste, or similar combustible material.

Section 105.6.48 Added – Day-care.

105.6.48 Day-care. An operational permit is required to operate a day-care center.

105.6.49 Added – Day-care, large family.

105.6.49 Day-care. An operational permit is required to operate a large family day-care home.

105.6.50 Added – High-rise buildings.

105.6.48 Day-care. An operational permit is required to operate a high-rise building.

Section 109.2.1 Added – Fire and life safety hazards.

109.2.1 Fire and life safety hazards. Persons operating, maintaining or controlling any occupancy, premises or vehicle subject to this code shall neither create, nor allow to exist, any condition deemed a fire or life safety hazard by the fire code official.

Section 109.4 Amended – Violation penalties.

109.4 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 will 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 subject to prosecution in accordance with Chapter 1.08 of the Orange Municipal Code. guilty of [SPECIFY OFFENSE] punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or by both such fine and imprisonment. ~~Each day that a violation continues after due notice has been served shall be deemed a separate offense.~~

Section 202 Amended – Added: “Flow-line,” “Hazardous Fire Area,” “Sky Lantern” and Revised: “High-Rise Building.”

FLOW-LINE. The lowest continuous elevation on a curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

HAZARDOUS FIRE AREA. Includes all areas identified within Section 4906.2 and other areas as determined by the Fire Code Official as presenting a fire hazard due to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

HIGH-RISE BUILDING. In other than Group I-2 occupancies, “high-rise buildings” as used in this Code:

EXISTING HIGH-RISE STRUCTURE. A high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.

HIGH-RISE STRUCTURE. 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 Section 403~~), except buildings used as hospitals as defined in Health and Safety Code Section 1250.

NEW HIGH-RISE BUILDING. A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this Section, construction shall be

deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this Section have been met, the construction of such buildings shall commence on or before January 1, 1976.

NEW HIGH-RISE STRUCTURE. means a high-rise structure, the construction of which commenced on or after July 1, 1974.

SKY LANTERN. An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.

Section 304.1.2 Amended – Vegetation.

Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with Chapter 49 and Orange City Fire Department vegetation management guidelines.

Section 304.4 Added – Disposal of rubbish.

304.4 Disposal of rubbish. Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.

Section 305.5 Added – Chimney spark arresters.

305.5 Chimney spark arresters. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. Chimneys serving outdoor appliances or fireplaces shall be equipped with a spark arrester. The spark arrester shall meet the requirements of Section 2113.9.2 of the California Building Code.

Section 305.6 Added – Outdoor fires.

305.6 Outdoor fires. Outdoor fires shall be in accordance with Sections 305, 307, and 308 and other applicable Sections of this code.

Section 307.1.2 Added – Fuel modification areas.

307.1.2 Fuel modification areas. Outdoor fires using wood or other solid fuel shall not be built, ignited or maintained in a fuel modification area.

Section 307.2.2 Added – Hazardous conditions.

307.2.2 Hazardous conditions. Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has

been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

Section 307.2.3 Added – Where prohibited.

307.2.3 Where prohibited. Outdoor fires shall not be built, ignited or maintained in fuel modification areas, Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) or Special Fire Protection Areas (SFPA) or other locations where conditions could cause the spread of fire to the WRA, SFPA or FHSZ in the opinion of the fire code official, except by permit from the fire code official.

Exception: A permit is not required for the following:

1. Fires in approved outdoor or portable fireplaces, fire pits, fire rings and similar devices at Group R occupancies that are installed and used in accordance with this code.
2. Outdoor fires at inhabited premises or official organized campsites or parks when located in a permanent or portable barbeque or grill, incinerator, or outdoor fireplace located at least 30 feet from combustible vegetation.
3. Other installations or uses approved by the fire code official.

Section 307.5.1 Added – Supervision.

307.5.1 Supervision. Where a permit is issued or when allowed under the exceptions to Section 305.6.1, such fires shall be supervised by a person 18 years of age or older.

Section 307 Amended – Open burning, recreational fires and portable outdoor fireplaces.

SECTION 307 OPEN BURNING, RECREATIONAL FIRES, FIRE PITS, FIRE RINGS, AND PORTABLE OUTDOOR FIREPLACES

Section 307.6 Added – Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies.

307.6 Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies. Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R shall comply with this Section.

Exception: Barbeques, grills, and other portable devices intended for cooking

Section 307.6.1 Added – Gas-fueled devices.

307.6.1 Gas-fueled devices. Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the building code official and the device is designed to only burn a gas flame and not wood or other solid fuel. At properties containing Group R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At

properties of other than Group R occupancies, the minimum distance shall be ten feet. Where a permanent hood and vent approved by the building code official is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester in accordance with Section 305.5.

Section 307.6.2 Added – Devices using wood or fuels other than natural gas or liquefied-petroleum gas.

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code and Section 305.5. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be managed per Section 307.5.

Section 307.6.2.1 Added – Where prohibited.

307.6.2.1 Where prohibited. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) and Special Fire Protection Areas (SFPA) or in locations where conditions could cause the spread of fire to the WRA or FHSZ, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

Section 319 Added – Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors.

319 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 has, or is adjacent to, or within 1,000 feet (304.8 m) 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 320 Added – Fuel modification requirements for new construction.

320 Fuel modification requirements for new construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of Orange City Fire Department Vegetation Management Guidelines currently in use at the time of plan submittal.

Section 321 Added – Clearance of brush or vegetative growth from roadways.

321 Clearance of brush or vegetative 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. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces.

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 in the opinion of the fire code official.

Section 322 Added – Unusual circumstances.

322 Unusual circumstances. The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that 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.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

Section 323 Added – Use of equipment.

323 Use of equipment. Except as otherwise provided in this Section, no person shall use, operate, or cause to be operated in, upon or ~~adjoining~~ adjacent to any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a properly functioning spark arrester as defined in Section 323.1 ~~maintained in effective working order~~, or the engine is constructed, equipped and maintained for the prevention of fire.

Exceptions:

1. 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.
2. 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 good mechanical condition

Section 323.1 Added – Spark Arresters.

323.1 Spark arresters. Spark arresters shall comply with the following:

1. 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.
2. Spark arresters affixed to the exhaust system of engines or vehicles subject to Section 322 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. Chimney spark arresters shall be required in accordance with Section 305.5

Section 324 Added – Restricted entry.

324 Restricted entry. The fire code official shall determine and publicly announce when hazardous fire areas are closed to entry and when such areas are again 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.

Exceptions:

1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands may enter when an area is closed if given permission by the fire code official.
2. Entry into closed areas is allowed, 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 325 Added – Trespassing on posted property.

325 Trespassing on posted property. 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 provided below:

1. Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.
2. Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception:

Owners and tenants of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their agents acting in the course of duty shall be allowed in such closed areas where authorized by the fire code official.

Section 326 Added – Sky lanterns and similar devices.

326 Sky Lanterns and similar devices. Possession or use of a sky lantern or similar device employing a candle, flame or other potential ignition source shall be prohibited.

Section 503.2.1 Amended – Dimensions.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flow-line to flow-line on streets with rolled curbs.

Section 503.2.1.1 Added – Hazardous fire areas.

503.2.1.1 Hazardous fire areas. Fire apparatus roads in hazardous fire areas shall have an unobstructed width of not less than 28 feet (8530 mm). The width shall be maintained to an approved point outside of the Hazardous Fire Area.

Exception: When the road serves no more than three dwelling units and the road does not exceed 150 feet in length, the road width may be 24 feet (7300 mm). This length may be increased to 400 feet where serving no more than three dwelling units and all structures accessed from the roadway are protected by automatic fire sprinklers.

Section 503.2.2 Added – Divided fire access roads.

503.2.2 Divided fire access roads. Divided fire access roads shall be subject to review and approval by the fire code official. Each lane shall be a minimum of 14 feet.

Section 503.6 Amended – Security gates.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. Vehicle access gates or barriers shall be in accordance with the City of Orange Fire Master Plan Guidelines. All electrically operated vehicle access gates shall be equipped with an automatic opening device in addition to a key opening switch.

Section 505.1 Added – Address identification.

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) for R-3 occupancies. For all other occupancies, the numbers shall be a minimum of 6 inches high with a minimum stroke width of 1 inch, and shall be approved by the fire code official. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

Section 505.1.1 Added – Building complexes.

505.1.1 Building complexes. Approved diagrammatic representations shall be positioned at all entrances to building complexes. The diagrammatic representations shall show the overall site, location of the viewer, buildings and units and the addresses or unit designations within the complex, and shall be internally or externally eliminated as approved during the hours of darkness.

Section 510.1 – Emergency responder radio coverage.

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This Section shall not require improvement of the existing public safety communication systems. The Emergency responder radio coverage system shall be installed in accordance with the City of Orange Emergency Responder Digital Radio Guideline.

Exceptions:

- ~~1. Where approved by the building official and the fire code official, a wired communication system in accordance with Section 907.2.12.2 shall be permitted to be installed or maintained in lieu of an approved radio coverage system.~~
- ~~2. Where it is determined by the fire code official that the radio coverage system is not needed.~~
- ~~3. In facilities where emergency responder radio coverage is required and such systems, components or equipment could have a negative impact on normal operations of the facility, the fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system,~~

Exceptions:

1. Where it is determined by the fire code official that the radio coverage system is not needed.
2. The fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system in facilities where emergency responder radio coverage is

required and such systems, components or equipment could have a negative impact on normal operations of the facility.

Section 510.2 Deleted – Emergency responder radio coverage in existing buildings.

Section 510.3 Deleted – Permit required.

Section 510.4 Deleted – Technical requirements.

Section 510.5 Deleted – Installation requirements.

Section 510.6 Deleted – Maintenance

Section 606.10.2 Amended – Manual Operation

606.10.2 Manual Operation. An automatic emergency stop feature shall be provided in accordance with Sections 606.10.2.1 and 606.10.2.2, and 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 or equivalent and marked as “Emergency Controls.”

Section 608.1 Amended – Scope.

608.1 Scope. 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 and lithium metal polymer, used for facility standby power, emergency power or uninterruptible power supplies shall comply with this Section and Table 608.1. Indoor charging systems for electric carts/cars with more than 50 gallons (189 L) aggregate quantity shall comply with Section 608.10.

Section 608.10 Added – Indoor charging of electric carts/cars.

608.10 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all battery electrolyte exceeds 50 gallons shall comply with following:

1. Spill control and neutralization shall be provided and comply with Section 608.5.
2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7.1
4. Smoke detection shall be provided and comply with Section 907.2

Section 901.6.1.1 Added – Maintenance of smoke alarms in apartment buildings

901.6.1.1 Maintenance of smoke alarms in apartment buildings. Installation and maintenance of smoke alarms in apartment buildings shall conform to the following:

1. Apartment building owners shall supply, install, test and maintain all required smoke alarms before renting to a new tenant. The amount and types of smoke alarms shall conform to the California Building Code in effect at the time of building construction and requirements for existing buildings.
2. The tenant shall be responsible for testing of all required smoke alarms in accordance with manufacturer instructions in his or her respective dwelling unit. Within 60 days of the first of each

year, the owner shall request each tenant for the status of all smoke alarms.

3. Within 10 days of receiving the smoke alarm status request, and in no event later than March 10 of each year, each tenant shall notify the owner, in writing, on a form provided by the owner, of the condition of each required smoke alarm installed in the dwelling unit.
4. Upon receipt of a written notice from a tenant that a smoke alarm is in need of maintenance or replacement, the owner shall perform such maintenance as is necessary within 10 days of receipt of such notification.
5. The hotel or apartment owner shall maintain records of compliance for a period of three years from March 10 of each year.

Section 903.2 Amended – Where required.

903.2 Where required. Approved automatic sprinkler systems in new-buildings and structures shall be provided when one of the following conditions exists in the locations described in Sections 903.2.1 through 903.2.12:

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, all buildings shall be protected throughout by an automatic fire sprinkler system when the total building area exceeds 5,000 square feet in Types I, II, III and IV construction, and 3000 square feet in Type V construction as defined in the California Building Code, regardless of fire areas or allowable area.

Exceptions:

1. Buildings with areas reduced to less than that requiring fire sprinklers using 3-hour minimum rated fire walls constructed in accordance with the California Building Code Chapter 7.
 2. Open parking garages, fences, retaining walls, towers classified as Group U occupancies, and tanks.
2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an existing building shall be protected throughout by an automatic fire sprinkler system when the building meets the conditions for required automatic fire sprinkler protection throughout, and one or more of the following conditions occurs:
 - a. An increase in area is made to the building,

Exception: Buildings housing Group R-3 fire occupancies shall be protected throughout by an automatic fire sprinkler system when the area of the building is increased, resulting in an area exceeding 5,000 square feet.

- b. A change is made to the occupancy classification and use of the building which increases the level of hazard as determined by the fire code official, or
- c. A significant modification is made to the building, or a modification impacts the structural system of the building as determined by the fire code official.

Section 903.3.5.3 Added – Hydraulically calculated systems.

903.3.5.3 Hydraulically calculated systems. The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity. The capacity shall be calculated using a combination of the following criteria:

- 1. The lower of the following:
 - a. the lowest water supply capacity determined by the water purveyor serving the closest fire hydrant serving the address in the last consecutive three years.
 - b. the lowest water supply flow test conducted in accordance with National Fire Protection Association (NFPA) within the last 12 calendar months.
- 2. Subtraction of the head pressure of the tallest tank supplying water to the fire hydrant flowing water, assuming the tank is full at the time of the test and empty at the time of fire sprinkler activation.

Section 903.4 Amended – Sprinkler system supervision and alarms.

903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

- 1. Automatic sprinkler systems protecting one- and two-family dwellings.
- 2. Limited area systems serving fewer than 20 sprinklers.
- 3. 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.
- 4. 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.~~
- 5. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
- 6. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Section 903.4.3 Added – Locking of control valves.

903.4.3 Locking of control valves. All valves required to be electrically supervised by this section shall also be sealed or locked in the position of normal operation.

15.32.420 Section 905.4 Amended – Location of Class I standpipe hose connections is hereby amended by adding item 7 as follows:

7. The centerline of the 2.5 inch (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) and no more than 24 inches above the finished floor.

Section 907.2.13 Amended – High-rise buildings.

907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 55 feet above the lowest level of fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 55 feet above the lowest level of fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the California Building Code.
2. Open parking garages in accordance with Section 406.5 of the California Building Code.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the California Building Code.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the California Building Code.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system

Section 907.3.1 Amended – Duct smoke detectors.

907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. 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 907.5.2.2 Amended – Emergency voice/alarm communication systems.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow 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 in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet above the lowest level of fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At 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 Chapter 2.
5. Dwelling units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-2 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

Section 907.6.3.2 Amended – High-rise buildings.

907.6.3.2 High-rise buildings. High-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet 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 detection devices or suppression systems.

Section 907.6.5.4 Added – Monitoring of fire-extinguishing systems.

907.6.5.4 Monitoring of fire-extinguishing systems. Where a building fire alarm or monitoring system is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm or monitoring system in accordance with NFPA 72.

Section 2808.2 Amended – Storage site.

2808.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from the fire code official obtained before transferring wood-products to the site.

Section 2808.3 Amended – Size of piles.

2808.3 Size of piles. Piles shall not exceed 25-15 feet (4572 mm) in height, 150-50 feet (15 240 mm) in width and 250-100 feet (30 480 mm) in length.

Section 2808.7 Amended – Pile fire protection.

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

Section 2808.9 Amended – Material-handling equipment.

2808.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

Section 2808.11 Added – Temperature control.

2808.11 Temperature control. The temperature shall be monitored and maintained as specified in Sections 2808.11.1 and 2808.11.2.

15.32.530 Section 2808.11.1 Added – Pile temperature control.

2808.11.1 Pile temperature control. Piles shall be rotated when the internal temperature readings are in excess of 165 degrees Fahrenheit.

Section 2808.11.2 Added – New material temperature control.

2808.11.2 New material temperature control. New loads delivered to the facility shall be inspected and tested at the facility entry prior to taking delivery. Material with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the site. New loads shall be monitored to verify that the temperature remains stable.

Section 4906.3 Amended – Hazardous vegetation and fuel management requirements.

4906.3 Requirements. Hazardous vegetation and fuels around all applicable buildings and structures shall be maintained in accordance with the following laws and regulations:

1. Public Resources Code, Section 4291.
2. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299 (see guidance for implementation “General Guideline to Create Defensible Space”).
3. California Government Code, Section 51182.
4. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.
5. Orange City Fire Department Vegetation Management Guidelines.

Section 4908 Added – Fuel modification requirements for new construction.

4908 Fuel modification requirements for new construction. All new buildings to be built or installed in hazardous fire areas 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.
 - a. The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange City Fire Department Vegetation Management Guidelines.
4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from 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 5001.5.1 Amended – Hazardous Materials Management Plan (HMMP)

5001.5.1 Hazardous Materials Management Plan (HMMP). Where required by the fire code official, and application for a permit shall include an HMMP. The application shall be submitted by March 1 of each year or as required by the fire code official. The HMMP shall include a facility site plan designating the following:

1. Access to each storage and use area.
2. Location of emergency equipment.
3. Location where liaison will meet emergency responders.
4. Facility evacuation meeting point locations.
5. The general purpose of other areas within the building.
6. Location of all above-ground and underground tanks and their appurtenances including, but not limited to, sumps, vaults, below-grade treatment systems and piping.
7. The hazard classes in each area.
8. Locations of all control areas and Group H occupancies.

9. Emergency exits.

[For SFM] The HMMP shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

Section 5001.5.2 Amended – Hazardous Materials Inventory Statement (HMIS).

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the fire code official, an application for a permit shall include an HMIS, ~~such as (SARA), Superfund Amendments and Reauthorization Act of 1986 Title III, Tier II Report or other approved~~ statement. The HMIS shall be submitted by March 1 of each year or as required by the fire code official, and shall include the following information:

1. Product Name
2. Component
3. Chemical Abstract Service (CAS) number
4. Location where stored or used.
5. Container size
6. Hazard classification
7. Amount in storage
8. Amount in use-closed systems
9. Amount in use-open systems.

[For SFM] The HMIS shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

Table 5003.1.1(1) Amended – Maximum allowable quantity per control area of hazardous materials posing a physical hazard is hereby amended by deleting Footnote K without replacement 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 the storage containers and the manner of storage are approved.~~

Section 5003.1.1.1 Added – Extremely hazardous substances.

5003.1.1.1 Extremely hazardous substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residentially zoned or residentially developed property.

Section 5004.12 Amended – Noncombustible floor.

5004.12 Noncombustible floor: Except for surfacing, floors of storage areas shall be of noncombustible, liquid tight construction.

Section 5601.2 Added – Retail fireworks.

5601.2 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.

Exception: 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

Section 5601.3 Added – Seizure of fireworks.

5601.3 Seizure of Fireworks. The fire code official shall have the authority to seize, take, remove all 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.

Section 5602 Added – Explosives and blasting, prohibited.

5602 Explosives and blasting prohibited. The manufacture, sale, possession storage, handling and use of explosives as defined in the California Code of Regulations, Title 19, Chapter 10, Section 1553 is prohibited.

Exceptions:

1. Explosives used as permitted by the Orange Municipal Code Chapter 15.34 Blasting Permits.
2. Handled loading of small arms ammunition performed in accordance with Orange Municipal Code Chapter 15.32 for personal use.

Section 5608.1 Amended – General.

5608.1 General. Outdoor fireworks displays, use of pyrotechnics before a proximate audience and pyrotechnic special effects in theatrical and group entertainment productions shall comply with California Code of Regulations, Title 19, Division 1, Chapter 6 Fireworks, the Orange City Fire Department Guidelines for Public Fireworks Displays, and with the conditions of the permit as approved by the fire code official.

Section 5608.2 Added – Firing.

5608.2 Firing. All fireworks displays shall be electrically fired.

Section 5704.2.9.6.1 Amended – Location where above-ground tanks are prohibited.

5704.2.9.6.1 Location where above-ground tanks are prohibited. ~~Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited (see Section 3 of the Sample~~

~~Legislation for Adoption of the California Fire Code on page xxvi). Above-ground tanks shall be prohibited except for the following locations:~~

- ~~1. M-1 or M-2 zones as established by the Planning Division of the City of Orange Community Department, and~~
- ~~2. As approved by the fire code official.~~

Section 5704.2.11 Amended – Underground tanks

5704.2.11 Underground tanks. ~~Underground storage of flammable and combustible liquids in tanks shall comply with Section 5704.2 and Sections 5704.2.11.1 through 5704.2.11.5.2. this Section, the applicable Sections of Chapter 50, and California Health and Safety Code (H&SC) Ch. 6.7.~~

Section 6004.2.2.7 Amended – Treatment systems.

6004.2.2.7 Treatment Systems. The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, and local exhaust systems required in Sections 6004.2.2.4 and 6004.2.2.5 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Chapter 5 of the California Mechanical Code.

Exceptions:

~~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:~~

- ~~1.1. Valve outlets are equipped with gas-tight outlet plugs or caps.~~
- ~~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 6004.2.2.3.~~

~~2. 1. Toxic gases – storage/use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 1,700 pounds (772 kg) water capacity when the following are provided:~~

~~2.1.1 A listed or approved gas detection system with a sensing interval not exceeding 5 minutes.~~

~~2.2.1.2. For storage, valve outlets are equipped with gas-tight outlet plugs or caps.~~

~~2.2.1.3 For use, A-a listed-or-and approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection system shall comply with Section 6004.2.2.10.~~

Ch. 80, Standard 13-13 Section 6.8.3 Amended – Fire department connections

6.8.3 Fire department connections (FDC) 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 40 feet from a fire hydrant, and at least 40 feet from the building it supplies unless otherwise approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water purveyor, it may be installed on the backflow assembly. Fire department inlet connections shall be painted “OSHA safety red.” Four 2 ½” inlets shall be provided when the automatic fire sprinkler system design (including system-supplied fire hose stream demand) requires 500 gpm or greater.

Ch. 80, Standard 13-13, Section 8.3.3.1 Amended – Spec buildings.

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 fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

- (1) Quick-response type as defined in 3.6.4.7
- (2) Residential sprinklers in accordance with the requirements of 8.4.5
- (3) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
- (4) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

Ch. 80, Standard 13-13, Section 11.1.1.2 Added – Spec building sprinkler density

11.1.1.2 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 16.2.1.3.2 (d) curve “G”. Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. 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.

Ch. 80, Standard 13R-13, Section 6.16.1 Amended – Local water flow alarm

6.16.1 A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided.

Ch. 80, Standard 13D-13, Section 4.1.3 Added – Spare sprinkler heads

4.1.3 Stock of Spare Sprinklers

Ch. 80, Standard 13D-13, Section 4.1.3.1 Added – Number of spare heads

4.1.3.1. 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.

Ch. 80, Standard 13D-13, Section 4.1.3.2 Added – Temperature ratings.

4.1.3.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

Ch. 80, Standard 13D-13, Section 4.1.3.3 Added – Spare head cabinet.

4.1.3.3 The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100 °F (38°C).

Ch. 80, Standard 13D-13, Section 4.1.3.4 Added – Spare sprinkler wrench.

4.1.3.4 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.

Ch. 80, Standard 13D-13, Section 7.1.2 Amended – Separate control valve.

7.1.2 The 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.~~

Ch. 80, Standard 14-13, Section 7.3.1.1 Replaced – Standpipe inlet heights.

7.3.1.1 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.

Ch. 80, Standard 24-13, Section 6.2.1.1 Added – Indicating valve color.

6.2.1.1 The closest upstream indicating valve to the riser shall be painted “OSHA safety red.”

Ch. 80, Standard 24-13, Section 6.2.11 (5) Amended – Control valves.

~~6.2.11 (5) A nonindicating valve, such as an underground gate valve with an approved roadway box, complete with T-wrench, located not less than 40 ft (12m) from the building.~~
~~(a) For buildings less than 40 feet (12m) in height, a non-indicating valve, such as an underground gate valve with an approved roadway box, complete with T-wrench, shall be permitted to be closer~~

than 40 ft (12 m), but at least as far from the building as the height of the wall facing the backflow preventer.

(65) Control Valves installed in a fire-rated room accessible from the exterior.

(76) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

Ch. 80, Standard 24-13, Section 6.3.3 Added – Post indicator valve color

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted “OSHA safety red.”

Ch. 80, Standard 24-13, Section 10.1.6.3 Added – Ferrous pipe.

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-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this Section.

Exception: 304 or 316 Stainless Steel pipe and fittings

Ch. 80, Standard 24-13, Section 10.3.6.2 Amended – Bolted joint accessories.

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

Exception: Bolted joint accessories made from 304 or 316 stainless steel.

Ch. 80, Standard 24-13, Section 10.3.6.3 Added – Pipe-joint assembly

10.3.5.3 All bolts used in pipe-joint assembly shall be 316 stainless steel.

Ch. 80, Standard 24-13, Section 10.6.3.1 Replaced – Under-building runs.

10.6.3.1 The requirements of 10.6.2(s) and 10.6.2(3) shall not apply where the fire service mains enter under the building no more than 10 feet (3 m) as measured from the outside edge of the building to the center of the vertical pipe. Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.6.2.

Ch. 80, Standard 24-13, Section 10.6.4 Amended – Pipe under footings.

10.6.4 Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints.

Section B105.2 Amended – Buildings other than one- and two-family dwellings.

B105.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be specified in Table B105.1.

Exceptions:

1. A reduction in required fire flow of up to 75%, as approved, 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 for the prescribed duration as specified in table B105.1.

2. *[SFM] Group B, S-2 and U occupancies having a floor area not exceeding 1000 square feet, primarily constructed of noncombustible exterior walls with wood or steel roof framing, having a class A roof assembly, with uses limited to the following or similar uses:*
 - 2.1 *California State Parks buildings of an accessory nature (restrooms).*
 - 2.2 *Safety roadside rest areas (SRRA) public restrooms.*
 - 2.3 *Truck inspection facilities (TIF) CHP office space and vehicle inspection bays.*
 - 2.4 *Sand/salt storage buildings, storage of sand and salt.*

Appendix C, Section C101.1 Amended – Scope

C101.1 Scope. Fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed. Fire hydrants located in the public way which are connected to the City of Orange Water Department water system shall comply with City of Orange Water Department distribution requirements when approved by the fire code official.

ORDINANCE NO. 16-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ORANGE DELETING CHAPTER 15.32, CITY OF ORANGE FIRE CODE, IN ITS ENTIRETY AND ADDING CHAPTER 15.32, ADOPTING AND AMENDING THE 2013 CALIFORNIA FIRE CODE AND PORTIONS OF THE 2012 INTERNATIONAL FIRE CODE AS THE CITY OF ORANGE FIRE CODE, TO TITLE 15 (BUILDINGS AND CONSTRUCTION) OF THE ORANGE MUNICIPAL CODE.

WHEREAS, the City of Orange Fire Department is responsible for enforcing the fire and safety regulations of the State Fire Marshal; and

WHEREAS, the State Fire Marshal's building standards regulations are incorporated in the 2013 California Fire Code; and

WHEREAS, the City is subject to the California Fire Code, as written, effective January 1, 2014 unless the City adopts amendments to said Code, with the appropriate findings supporting such amendments; and

WHEREAS, cities are allowed to make amendments to State building standards when justified by local topographical, climactic and geographical conditions; and

WHEREAS, contemporaneously herewith the City Council has made appropriate findings that justify amendments to the California Fire Code based on local topographical, climactic and geographical conditions in Resolution No. 10742; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ORANGE DOES ORDAIN AS FOLLOWS:

SECTION I:

Chapter 15.32, City of Orange Fire Code, is deleted in its entirety and is hereby replaced with Chapter 15.32, adopting the 2013 California Fire Code and Chapter 1, Division II, Sections 305, 307, 308, 503, 510.2 and appendices B and C of the 2012 International Fire Code to read as amended below:

Chapter 15.32 CITY OF ORANGE FIRE CODE

15.32.010 Adoption by Reference

The City Council adopts by reference the California Fire Code, 2013 Edition, and Chapter 1, Division II, Sections 305, 307, 308, 503, 510.2 and appendices B and C of the International Fire Code as published by the International Code Council, as hereinafter amended, modified or altered. Such Codes are adopted by reference, for the purpose of safeguarding the public from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises. One copy of the codes has been and is now on file in the office of the City Clerk, and the codes are adopted by reference as if incorporated and set out at length in this chapter. The provisions therein shall be controlling within the limits of the City of Orange and shall be designated, known and referred to as the Orange Fire Code.

15.32.020 Section 101.1 Amended – Title.

101.1 Title. These regulations shall be known as the Orange Fire Code hereinafter referred to as “this code.”

15.32.025 Section 103.2 Amended – Appointment.

103.2 Appointment. The fire code official shall be appointed by the fire chief and may be removed at any time.

15.32.030 Section 105.1.1 Amended – Permits required.

105.1.1 Permits required. When a permit is required by this code, a current permit conforming to the requirements of Section 105 shall be required to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done.

15.32.035 Section 105.4.2 Amended – Information on construction documents.

105.4.2 Information on construction documents. Construction documents shall be drawn to scale upon suitable material. Plans shall be submitted in both paper and electronic formats as detailed in the City of Orange Fire Department Plan Submittal Guidelines. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail but it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations as determined by the fire code official.

15.32.040 Section 105.6.29 Amended – Miscellaneous combustible storage.

105.6.29. Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, green waste, composting, yard waste, or similar combustible material.

15.32.042 Section 105.6.48 Added – Day-care.

105.6.48 Day-care. An operational permit is required to operate a day-care center.

15.32.044 Section 105.6.49 Added – Day-care, large family.

105.6.49 Day-care, large family. An operational permit is required to operate a large family day-care home.

15.32.046 Section 105.6.50 Added – High-rise buildings.

105.6.50 High-rise buildings. An operational permit is required to operate a high-rise building.

15.32.050 Section 109.2.1 Added – Fire and life safety hazards.

109.2.1 Fire and life safety hazards. Persons operating, maintaining or controlling any occupancy, premises or vehicle subject to this code shall neither create, nor allow to exist, any condition deemed a fire or life safety hazard by the fire code official.

15.32.060 Section 109.4 Amended – Violation penalties.

109.4 Violation penalties. Persons who violate a provision of this code or fail to comply with any of the requirements thereof or who 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 subject to prosecution in accordance with Chapter 1.08 of the Orange Municipal Code.

15.32.070 Section 202 – Added: “Flow-line,” “Hazardous Fire Area,” “Sky Lantern” and Revised: “High-Rise Building.”

FLOW-LINE. The lowest continuous elevation on a curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

HAZARDOUS FIRE AREA. Includes all areas identified within Section 4906.2 and other areas as determined by the Fire Code Official as presenting a fire hazard due to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

HIGH-RISE BUILDING. In other than Group I-2 occupancies, “high-rise buildings” as used in this Code:

Existing high-rise structure. A high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.

High-rise structure. Every building of any type of construction or occupancy having floors used for human occupancy located more than 55 feet above the lowest floor level having building access, except buildings used as hospitals as defined in Health and Safety Code Section 1250.

New high-rise building. A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this Section, construction shall be deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this Section have been met, the construction of such buildings shall commence on or before January 1, 1976.

New high-rise structure. means a high-rise structure, the construction of which commenced on or after July 1, 1974.

SKY LANTERN. An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.

15.32.080 Section 304.1.2 Amended – Vegetation.

Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with Chapter 49 and Orange City Fire Department vegetation management guidelines.

15.32.090 Section 304.4 Added – Disposal of rubbish.

304.4 Disposal of rubbish. Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.

15.32.100 Section 305.5 Added – Chimney spark arresters.

305.5 Chimney spark arresters. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. Chimneys serving outdoor appliances or fireplaces shall be equipped with a spark arrester. The spark arrester shall meet the requirements of Section 2113.9.2 of the California Building Code.

15.32.110 Section 305.6 Added – Outdoor fires.

305.6 Outdoor fires. Outdoor fires shall be in accordance with Sections 305, 307, and 308 and other applicable Sections of this code.

15.32.120 Section 307.1.2 Added – Fuel modification areas.

307.1.2 Fuel modification areas. Outdoor fires using wood or other solid fuel shall not be built, ignited or maintained in a fuel modification area.

15.32.130 Section 307.2.2 Added – Hazardous conditions.

307.2.2 Hazardous conditions. Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

15.32.140 Section 307.2.3 Added – Where prohibited.

307.2.3 Where prohibited. Outdoor fires shall not be built, ignited or maintained in fuel modification areas, Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) or Special Fire Protection Areas (SFPA) or other locations where conditions could cause the spread of fire to the WRA, SFPA or FHSZ in the opinion of the fire code official, except by permit from the fire code official.

Exception: A permit is not required for the following:

1. Fires in approved outdoor or portable fireplaces, fire pits, fire rings and similar devices at Group R occupancies that are installed and used in accordance with this code.
2. Outdoor fires at inhabited premises or official organized campsites or parks when located in a permanent or portable barbeque or grill, incinerator, or outdoor fireplace located at least 30 feet from combustible vegetation.
3. Other installations or uses approved by the fire code official.

15.32.150 Section 307.5.1 Added – Supervision.

307.5.1 Supervision. Where a permit is issued or when allowed under the exceptions to Section 305.6.1, such fires shall be supervised by a person 18 years of age or older.

15.32.160 SECTION 307 Amended – OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES.

SECTION 307 OPEN BURNING, RECREATIONAL FIRES, FIRE PITS, FIRE RINGS, AND OUTDOOR FIREPLACES

15.32.170 Section 307.6 Added – Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies.

307.6 Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies. Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R shall comply with this Section.

Exception: Barbeques, grills, and other portable devices used solely for cooking are not regulated by this section.

15.32.180 Section 307.6.1 Added – Gas-fueled devices.

307.6.1 Gas-fueled devices. Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the building code official and the device is designed to only burn a gas flame and not wood or other solid fuel. At properties containing Group R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At properties of other than Group R occupancies, the minimum distance shall be ten feet. Where a permanent hood and vent approved by the building code official is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester in accordance with Section 305.5.

15.32.190 Section 307.6.2 Added – Devices using wood or fuels other than natural gas or liquefied-petroleum gas.

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code and Section 305.5. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be managed per Section 307.5.

15.32.200 Section 307.6.2.1 Added – Where prohibited.

307.6.2.1 Where prohibited. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) and Special Fire Protection Areas (SFPA) or in locations where conditions could cause the spread of fire to the WRA or FHSZ, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

15.32.210 Section 319 Added – Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors.

319 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 has, or is adjacent to, or within 1,000 feet (304.8 m) 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.

15.32.220 Section 320 Added – Fuel modification requirements for new construction.

320 Fuel modification requirements for new construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of Orange City Fire Department Vegetation Management Guidelines currently in use at the time of plan submittal.

15.32.230 Section 321 Added – Clearance of brush or vegetative growth from roadways.

321 Clearance of brush or vegetative 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. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces.

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 in the opinion of the fire code official.

15.32.240 Section 322 Added – Unusual circumstances.

322 Unusual circumstances. The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that 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.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

15.32.250 Section 323 Added – Use of equipment.

323 Use of equipment. Except as otherwise provided in this Section, no person shall use, operate, or cause to be operated in, upon or adjacent to any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a properly functioning spark arrester as defined in Section 323.1, or the engine is constructed, equipped and maintained for the prevention of fire.

Exceptions:

1. 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.
2. 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 good mechanical condition

15.32.260 Section 323.1 Spark Arresters is hereby added as follows:

323.1 Spark arresters. Spark arresters shall comply with the following:

1. 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.
2. Spark arresters affixed to the exhaust system of engines or vehicles subject to Section 322 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. Chimney spark arresters shall be required in accordance with Section 305.5

15.32.270 Section 324 Added – Restricted entry.

324 Restricted entry. The fire code official shall determine and publicly announce when hazardous fire areas are closed to entry and when such areas are again 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.

Exceptions:

1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands may enter when an area is closed if given permission by the fire code official.

2. Entry into closed areas is allowed, 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.

15.32.280 Section 325 Added – Trespassing on posted property.

325 Trespassing on posted property. 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 provided below:

1. Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.
2. Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception:

Owners and tenants of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their agents acting in the course of duty shall be allowed in such closed areas where authorized by the fire code official.

15.32.290 Section 326 Added – Sky lanterns and similar devices.

326 Sky Lanterns and similar devices. Possession or use of a sky lantern or similar device employing a candle, flame or other potential ignition source shall be prohibited.

15.32.300 Section 503.2.1 Amended – Dimensions.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flow-line to flow-line on streets with rolled curbs.

15.32.310 Section 503.2.1.1 Added – Hazardous fire areas.

503.2.1.1 Hazardous fire areas. Fire apparatus roads in hazardous fire areas shall have an unobstructed width of not less than 28 feet (8530 mm). The width shall be maintained to an approved point outside of the Hazardous Fire Area.

Exception: When the road serves no more than three dwelling units and the road does not exceed 150 feet in length, the road width may be 24 feet (7300 mm). This length may be increased to 400 feet where serving no more than three dwelling units and all structures accessed from the roadway are protected by automatic fire sprinklers.

15.32.315 Section 503.2.2 Added – Divided fire access roads.

503.2.2 Divided fire access roads. Divided fire access roads shall be subject to review and approval by the fire code official. Each lane shall be a minimum width of 14 feet.

15.32.320 Section 503.6 Amended – Security gates.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. Vehicle access gates or barriers shall be in accordance with the City of Orange Fire Master Plan Guidelines. All electrically operated vehicle access gates shall be equipped with an automatic opening device in addition to a key opening switch.

15.32.330 Section 505.1 Amended – Address Identification.

505.1 Address Identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) for R-3 occupancies. For all other occupancies, the numbers shall be a minimum of 6 inches high with a minimum stroke width of 1 inch, and shall be approved by the fire code official. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

15.32.335 Section 505.1.1 Added – Building complexes.

505.1.1 Building complexes. Approved diagrammatic representations shall be positioned at all entrances to building complexes. The diagrammatic representations shall show the overall site, location of the viewer, buildings and units and the addresses or unit designations within the complex, and shall be internally or externally eliminated as approved during the hours of darkness.

15.32.340 Section 510.1 – Emergency responder radio coverage.

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This Section shall not require improvement of the existing public safety communication systems. The Emergency responder radio coverage system shall be installed in accordance with the City of Orange Emergency Responder Digital Radio Guideline.

Exceptions:

1. Where it is determined by the fire code official that the radio coverage system is not needed.
2. The fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system in facilities where emergency responder radio coverage is required and such systems, components or equipment could have a negative impact on normal operations of the facility.

15.32.341 Section 510.2 Deleted – Emergency responder radio coverage in existing buildings.

15.32.342 Section 510.3 Deleted – Permit required.

15.32.343 Section 510.4 Deleted – Technical requirements.

15.32.344 Section 510.5 Deleted – Installation requirements.

15.32.345 Section 510.6 Deleted – Maintenance

15.32.350 Section 606.10.2 Amended – Manual Operation

606.10.2 Manual Operation. An automatic emergency stop feature shall be provided in accordance with Sections 606.10.2.1 and 606.10.2.2, and 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 or equivalent and marked as “Emergency Controls.”

15.32.360 Section 608.1 Amended – Scope.

608.1 Scope. 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 and lithium metal polymer, used for facility standby power, emergency power or uninterruptible power supplies shall comply with this Section and Table 608.1. Indoor charging systems for electric carts/cars with more than 50 gallons (189 L) aggregate quantity shall comply with Section 608.10.

15.32.370 Section 608.10 Added – Indoor charging of electric carts/cars.

608.10 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all battery electrolyte exceeds 50 gallons shall comply with following:

1. Spill control and neutralization shall be provided and comply with Section 608.5.
2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7.1
4. Smoke detection shall be provided and comply with Section 907.2

15.32.380 Section 901.6.1.1 Added – Maintenance of smoke alarms in apartment buildings

901.6.1.1 Maintenance of smoke alarms in apartment buildings. Installation and maintenance of smoke alarms in apartment buildings shall conform to the following:

1. Apartment building owners shall supply, install, test and maintain all required smoke alarms before renting to a new tenant. The amount and types of smoke alarms shall conform to the California Building Code in effect at the time of building construction and requirements for existing buildings.
2. The tenant shall be responsible for testing of all required smoke alarms in accordance with manufacturer instructions in his or her respective dwelling unit. Within 60 days of the first of each year, the owner shall request each tenant for the status of all smoke alarms.
3. Within 10 days of receiving the smoke alarm status request, and in no event later than March 10 of each year, each tenant shall notify the owner, in writing, on a form provided by the owner, of the condition of each required smoke alarm installed in the dwelling unit.
4. Upon receipt of a written notice from a tenant that a smoke alarm is in need of maintenance or replacement, the owner shall perform such maintenance as is necessary within 10 days of receipt of such notification.
5. The hotel or apartment owner shall maintain records of compliance for a period of three years from March 10 of each year.

15.32.390 Section 903.2 Amended – Where required.

903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided when one of the following conditions exists.

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, all buildings shall be protected throughout by an automatic fire sprinkler system when the total building area exceeds 5,000 square feet in Types I, II, III and IV construction, and 3000 square feet in Type V construction as defined in the California Building Code, regardless of fire areas or allowable area.

Exceptions:

1. Buildings with areas reduced to less than that requiring fire sprinklers using 3-hour minimum rated fire walls constructed in accordance with the California Building Code Chapter 7.
 2. Open parking garages, fences, retaining walls, towers classified as Group U occupancies, and tanks.
2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an existing building shall be protected throughout by an automatic fire sprinkler system when the building meets the conditions for required automatic fire sprinkler protection throughout, and one or more of the following conditions occurs:
- a. An increase in area is made to the building,

Exception: Buildings housing Group R-3 fire occupancies shall be protected throughout by an automatic fire sprinkler system when the area of the building is increased, resulting in an area exceeding 5,000 square feet.

- b. A change is made to the occupancy classification and use of the building which increases the level of hazard as determined by the fire code official, or
- c. A significant modification is made to the building, or a modification impacts the structural system of the building as determined by the fire code official.

15.32.400 Section 903.3.5.3 Added – Hydraulically calculated systems.

903.3.5.3 Hydraulically calculated systems. The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity. The capacity shall be calculated using a combination of the following criteria:

1. The lower of the following:
 - a. the lowest water supply capacity determined by the water purveyor serving the closest fire hydrant serving the address in the last consecutive three years.
 - b. the lowest water supply flow test conducted in accordance with National Fire Protection Association (NFPA) within the last 12 calendar months.
2. Subtraction of the head pressure of the tallest tank supplying water to the fire hydrant flowing water, assuming the tank is full at the time of the test and empty at the time of fire sprinkler activation.

15.32.410 Section 903.4 Amended – Sprinkler system supervision and alarms.

903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. 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.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
6. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

15.32.415 Section 903.4.3 Added – Locking of control valves.

903.4.3 Locking of control valves. All valves required to be electrically supervised by this section shall also be sealed or locked in the position of normal operation.

15.32.420 Section 905.4 Amended – Location of Class I standpipe hose connections is hereby amended by adding item 7 as follows:

7. The centerline of the 2.5 inch (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) and no more than 24 inches above the finished floor.

15.32.430 Section 907.2.13 Amended – High-rise buildings.

907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet above the lowest level of fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet above the lowest level of fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the California Building Code.
2. Open parking garages in accordance with Section 406.5 of the California Building Code.

3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the California Building Code.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the California Building Code.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system

15.32.440 Section 907.3.1 Amended – Duct smoke detectors.

907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. 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.

15.32.450 Section 907.5.2.2 Amended – Emergency voice/alarm communication systems.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow 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 in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At 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 Chapter 2.
5. Dwelling units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-2 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

15.32.460 Section 907.6.3.2 Amended – High-rise buildings.

907.6.3.2 High-rise buildings. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet 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 detection devices or suppression systems.

15.32.470 Section 907.6.5.4 Added – Monitoring of fire-extinguishing systems.

907.6.5.4 Monitoring of fire-extinguishing systems. Where a building fire alarm or monitoring system is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm or monitoring system in accordance with NFPA 72.

15.32.480 Section 2808.2 Amended – Storage site.

2808.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from the fire code official obtained before transferring products to the site.

15.32.490 Section 2808.3 Amended – Size of piles.

2808.3 Size of piles. Piles shall not exceed 15 feet (4572 mm) in height, 50 feet (15 240 mm) in width and 100 feet (30 480 mm) in length.

15.32.500 Section 2808.7 Amended – Pile fire protection.

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

15.32.510 Section 2808.9 Amended – Material-handling equipment.

2808.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

15.32.520 Section 2808.11 Added – Temperature control.

2808.11 Temperature control. The temperature shall be monitored and maintained as specified in Sections 2808.11.1 and 2808.11.2.

15.32.530 Section 2808.11.1 Added – Pile temperature control.

2808.11.1 Pile temperature control. Piles shall be rotated when the internal temperature readings are in excess of 165 degrees Fahrenheit.

15.32.540 Section 2808.11.2 Added – New material temperature control.

2808.11.2 New material temperature control. New loads delivered to the facility shall be inspected and tested at the facility entry prior to taking delivery. Material with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the site. New loads shall be monitored to verify that the temperature remains stable.

15.32.550 Section 4906.3 Amended – Hazardous vegetation and fuel management requirements.

4906.3 Requirements. Hazardous vegetation and fuels around all applicable buildings and structures shall be maintained in accordance with the following laws and regulations:

1. Public Resources Code, Section 4291.
2. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299 (see guidance for implementation “General Guideline to Create Defensible Space”).
3. California Government Code, Section 51182.
4. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.
5. Orange City Fire Department Vegetation Management Guidelines.

15.32.560 Section 4908 Added – Fuel modification requirements for new construction.

4908 Fuel modification requirements for new construction. All new buildings to be built or installed in hazardous fire areas 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.
 - a. The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange City Fire Department Vegetation Management Guidelines.

4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from 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.

15.32.570 Section 5001.5.1 Amended – Hazardous Materials Management Plan (HMMP)

5001.5.1 Hazardous Materials Management Plan (HMMP). Where required by the fire code official, and application for a permit shall include an HMMP. The application shall be submitted by March 1 of each year or as required by the fire code official. The HMMP shall include a facility site plan designating the following:

1. Access to each storage and use area.
2. Location of emergency equipment.
3. Location where liaison will meet emergency responders.
4. Facility evacuation meeting point locations.
5. The general purpose of other areas within the building.
6. Location of all above-ground and underground tanks and their appurtenances including, but not limited to, sumps, vaults, below-grade treatment systems and piping.
7. The hazard classes in each area.
8. Locations of all control areas and Group H occupancies.
9. Emergency exits.

[For SFM] The HMMP shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

15.32.580 Section 5001.5.2 Amended – Hazardous Materials Inventory Statement (HMIS).

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the fire code official, an application for a permit shall include an HMIS. The HMIS shall be submitted by March 1 of each year or as required by the fire code official, and shall include the following information:

1. Product Name
2. Component
3. Chemical Abstract Service (CAS) number
4. Location where stored or used.
5. Container size
6. Hazard classification
7. Amount in storage
8. Amount in use-closed systems

9. Amount in use-open systems.

[For SFM] The HMIS shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

15.32.590 Table 5003.1.1(1) Amended – Maximum allowable quantity per control area of hazardous materials posing a physical hazard is hereby amended by deleting Footnote K without replacement as follows:

15.32.600 Section 5003.1.1.1 Added – Extremely hazardous substances.

5003.1.1.1 Extremely hazardous substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residentially zoned or residentially developed property.

15.32.610 Section 5004.12 Amended – Noncombustible floor.

5004.12 Noncombustible floor: Except for surfacing, floors of storage areas shall be of noncombustible, liquid tight construction.

15.32.620 Section 5601.2 Added – Retail fireworks.

5601.2 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.

Exception: 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

15.32.630 Section 5601.3 Added – Seizure of fireworks.

5601.3 Seizure of Fireworks. The fire code official shall have the authority to seize, take, remove all 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.

15.32.640 Section 5602 Added – Explosives prohibited.

5602 Explosives prohibited. The manufacture, sale, possession, storage, handling and use of explosives as defined in the California Code of Regulations, Title 19, Chapter 10, Section 1553 is prohibited.

Exceptions:

1. Explosives used as permitted by Orange Municipal Code Chapter 15.34, Blasting Permits.

2. Handled loading of small arms ammunition performed in accordance with Orange Municipal Code Chapter 15.32 for personal use.

15.32.650 Section 5608.1 Amended – General.

5608.1 General. Outdoor fireworks displays, use of pyrotechnics before a proximate audience and pyrotechnic special effects in theatrical and group entertainment productions shall comply with California Code of Regulations, Title 19, Division 1, Chapter 6 Fireworks, the Orange City Fire Department Guidelines for Public Fireworks Displays, and with the conditions of the permit as approved by the fire code official.

15.32.660 Section 5608.2 Added – Firing.

5608.2 Firing. All fireworks displays shall be electrically fired.

15.32.665 Section 5704.2.9.6.1 Amended – Location where above-ground tanks are prohibited.

5704.2.9.6.1 Location where above-ground tanks are prohibited. Above-ground tanks shall be prohibited except for the following locations:

1. M-1 or M-2 zones as established by the Planning Division of the City of Orange Community Development Department, and
2. As approved by the fire code official.

15.32.670 Section 5704.2.11 Amended – Underground tanks

5704.2.11 Underground tanks. Underground storage of flammable and combustible liquids in tanks shall comply with this Section, the applicable Sections of Chapter 50, and California Health and Safety Code (H&SC) Ch. 6.7.

15.32.680 Section 6004.2.2.7 Amended – Treatment systems.

6004.2.2.7 Treatment Systems. The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, and local exhaust systems required in Sections 6004.2.2.4 and 6004.2.2.5 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Chapter 5 of the California Mechanical Code.

Exceptions:

1 Toxic gases – storage/use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 1,700 pounds (772 kg) water capacity when the following are provided:

1.1 A listed or approved gas detection system with a sensing interval not exceeding 5 minutes.

1.2. For storage, valve outlets are equipped with gas-tight outlet plugs or caps.

1.3 For use, a listed and approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection system shall comply with Section 6004.2.2.10.

15.32.690 Ch. 80, Standard 13-13 Section 6.8.3 Amended – Fire department connections

6.8.3 Fire department connections (FDC) 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 40 feet from a fire hydrant, and at least 40 feet from the building it supplies unless otherwise approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water purveyor, it may be installed on the backflow assembly. Fire department inlet connections shall be painted “OSHA safety red.” Four 2 ½” inlets shall be provided when the automatic fire sprinkler system design (including system-supplied fire hose stream demand) requires 500 gpm or greater.

15.32.700 Ch. 80, Standard 13-13, Section 8.3.3.1 Amended – Spec buildings.

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 fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

- (1) Quick-response type as defined in 3.6.4.7
- (2) Residential sprinklers in accordance with the requirements of 8.4.5
- (3) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
- (4) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

15.32.710 Ch. 80, Standard 13-13, Section 11.1.1.2 Added – Spec building sprinkler density

11.1.1.2 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 16.2.1.3.2 (d) curve “G”. Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. 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.

15.32.720 Ch. 80, Standard 13R-13, Section 6.16.1 Amended – Local water flow alarm

6.16.1 A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided.

15.32.730 Ch. 80, Standard 13D-13, Section 4.1.3 Added – Spare sprinkler heads.

4.1.3 Stock of Spare Sprinklers

15.32.740 Ch. 80, Standard 13D-13, Section 4.1.3.1 Added – Number of spare heads

4.1.3.1. 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.

15.32.750 Ch. 80, Standard 13D-13, Section 4.1.3.2 Added – Temperature ratings.

4.1.3.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

15.32.760 Ch. 80, Standard 13D-13, Section 4.1.3.3 Added – Spare head cabinet.

4.1.3.3 The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100 °F (38°C).

15.32.770 Ch. 80, Standard 13D-13, Section 4.1.3.4 Added – Spare sprinkler wrench.

4.1.3.4 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.

15.32.780 Ch. 80, Standard 13D-13, Section 7.1.2 Amended – Separate control valve.

7.1.2 The system piping shall not have a separate control valve unless supervised by a central station, proprietary, or remote station alarm service.

15.32.790 Ch. 80, Standard 14-13, Section 7.3.1.1 Replaced – Standpipe inlet heights.

7.3.1.1 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.

15.32.800 Ch. 80, Standard 24-13, Section 6.2.1.1 Added – Indicating valve color.

6.2.1.1 The closest upstream indicating valve to the riser shall be painted “OSHA safety red.”

15.32.810 Ch. 80, Standard 24-13, Section 6.2.11 (5) Amended – Control valves.

(5) Control Valves installed in a fire-rated room accessible from the exterior.

(6) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

15.32.820 Ch. 80, Standard 24-13, Section 6.3.3 Added – Post indicator valve color

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted “OSHA safety red.”

15.32.830 Ch. 80, Standard 24-13, Section 10.1.6.3 Added – Ferrous pipe.

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-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this Section.

Exception: 304 or 316 Stainless Steel pipe and fittings

15.32.840 Ch. 80, Standard 24-13, Section 10.3.6.2 Amended – Bolted joint accessories.

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

Exception: Bolted joint accessories made from 304 or 316 stainless steel.

15.32.850 Ch. 80, Standard 24-13, Section 10.3.6.3 Added – Pipe-joint assembly

10.3.5.3 All bolts used in pipe-joint assembly shall be 316 stainless steel.

15.32.860 Ch. 80, Standard 24-13, Section 10.6.3.1 Replaced – Under-building runs.

10.6.3.1 Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.6.2.

15.32.870 Ch. 80, Standard 24-13, Section 10.6.4 Amended – Pipe under footings.

10.6.4 Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints.

15.32.875 Section B105.2 Amended – Buildings other than one- and two-family dwellings.

B105.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be specified in Table B105.1.

Exceptions:

1. A reduction in required fire flow of up to 50%, as approved, 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 for the prescribed duration as specified in table B105.1.
2. *[SFM] Group B, S-2 and U occupancies having a floor area not exceeding 1000 square feet, primarily constructed of noncombustible exterior walls with wood or steel roof framing, having a class A roof assembly, with uses limited to the following or similar uses:*
 - 2.1 *California State Parks buildings of an accessory nature (restrooms).*
 - 2.2 *Safety roadside rest areas (SRRA) public restrooms.*
 - 2.3 *Truck inspection facilities (TIF) CHP office space and vehicle inspection bays.*
 - 2.4 *Sand/salt storage buildings, storage of sand and salt.*

15.32.880 Appendix C, Section C101.1 Amended – Scope

C101.1 Scope. Fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed. Fire hydrants located in the public way which are connected to the City of Orange Water Department water system shall comply with City of Orange Water Department distribution requirements when approved by the fire code official.

SECTION II:

Severability – Should any sentence, section clause, part or provision of this ordinance be declared invalid, the same shall not affect the validity of the ordinance as a whole or any other part thereof.

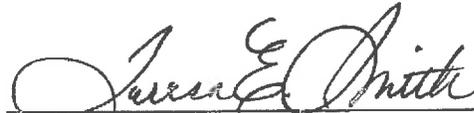
SECTION III:

Savings Clause – Neither the adoption of this ordinance nor the amendment hereby of any other ordinance of this City shall in any manner affect the prosecution for violations of ordinances, which violations were committed prior to the effective date hereof, nor to be construed as a waiver of any license or penalty or the penal provisions applicable to any violation thereof. The provisions of this ordinance, insofar as they are substantially the same as ordinance provisions previously adopted by the City related to the same subject matter, shall be constructed as restatements and continuations, and not as new enactments.

SECTION IV:

A summary of this Ordinance shall be published and a certified copy of the full text of this Ordinance shall be posted in the Office of the City Clerk at least five (5) days prior to the City Council meetings at which this Ordinance is to be adopted. A summary of this Ordinance shall also be published once within fifteen (15) days after this Ordinance's passage in a newspaper of general circulation, published, and circulated in the City Council members voting for and against the Ordinance in accordance with Government Code Section 36933. This Ordinance shall take effect thirty (30) days from and after the date of its final passage.

ADOPTED this 26th day of November, 2013.



Teresa Smith, Mayor, City of Orange

ATTEST:

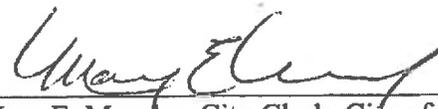


Mary E. Murphy, City Clerk, City of Orange

STATE OF CALIFORNIA)
COUNTY OF ORANGE)
CITY OF ORANGE)

I, Mary E. Murphy, City Clerk of the City of Orange, California, do hereby certify that the foregoing Ordinance was introduced at the regular meeting of the City Council held on the 12th day of November, 2013, and thereafter at the regular meeting of said City Council duly held on the 26th day of November, 2013, was duly passed and adopted by the following vote, to wit:

AYES: COUNCILMEMBERS: Alvarez, Whitaker, Smith, Murphy
NOES: COUNCILMEMBERS: None
ABSENT: COUNCILMEMBERS: None
ABSTAIN: COUNCILMEMBERS: Bilodeau



Mary E. Murphy, City Clerk, City of Orange

RESOLUTION NO. 10742

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ORANGE SETTING FORTH FINDINGS WITH RESPECT TO LOCAL CONDITIONS WITHIN THE CITY OF ORANGE JUSTIFYING MODIFICATIONS AND CHANGES TO THE CALIFORNIA FIRE CODE.

WHEREAS, the Health & Safety Code provides that the City of Orange shall be governed by the same requirements as those found in the California Fire Code unless the City Council acts to change the requirements; and

WHEREAS, the Health & Safety Code permits the City Council to make such changes or modifications to the California Fire Code as are reasonably necessary because of local conditions; and

WHEREAS, the Health & Safety Code requires that the City Council, make express findings before making any changes or modifications to the California Fire Code, such changes or modifications to the Code must be done in response to local climatic, geographic, or topographic conditions; and

WHEREAS, the Fire Chief has recommended amendments to the 2013 California Fire Code as set forth in Ordinance 16-13 because of local climatic, geographical and topographical conditions; and

WHEREAS, modifications to the 2013 California Fire Code are required as a result of the following local climatic, geographical and topographical conditions. The changes and modifications to the 2013 California Fire Code are found in Ordinance 16-13.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Orange as follows:

1. The foregoing recitals are true and correct.
2. The City Council finds the following local climatic, geographical and topographical conditions exist in the City of Orange:
 - I. Climatic Conditions
 - A. The jurisdiction of Orange is located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services

throughout the City. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

- B. The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Orange City Fire Department's ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within the City.
- C. Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly 10 million over the next quarter of a century with 50 percent of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.
- D. These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in high-density housing or vegetation. These fires spread very quickly and create a need for increased levels of fire protection. The added protection of fire sprinkler systems and other fire protection features will supplement normal fire department response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. Fire sprinkler systems will also reduce the use of water for firefighting by as much as 50 to 75 percent.

Topographical Conditions

- E. Natural; slopes of 15 percent or greater generally occur throughout the foothills of the city of Orange. The elevation change caused by the hills creates the geological foundation on which the community of Orange is built and will continue to build. With much of the populated flatlands already built upon, future growth will occur on steeper slopes and greater constraints in terrain.
- F. Traffic and circulation congestion is an artificially created, obstructive topographical condition, which is common throughout Orange.

- G. These topographical conditions combine to create a situation, which places fire department response time to fire occurrences at risk, and makes it necessary to provide automatic on-site fire-extinguishing systems and other protection measures to protect occupants and property.

II. Geological Conditions

The city of Orange, in the Orange County region, is a densely populated area that has buildings constructed over and near a vast and complex network of faults that are believed to be capable of producing future earthquakes similar or greater in size than the 1994 Northridge and the 1971 Sylmar earthquakes. Earthquake faults run along the northern, eastern and central areas of the City. The Newport-Inglewood Fault, located within Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude) which took 120 lives and damaged buildings in an area from Laguna Beach to Marina Del Rey to Whittier. In December 1989, another earthquake occurred in the jurisdiction of Orange at an unknown fault line. Regional planning for reoccurrence of earthquakes is recommended by the state of California, Department of Conservation.

- A. Previous earthquakes have been accompanied by disruption of traffic flow and fires. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors of buildings. The October 17, 1989, Santa Cruz earthquake resulted in one major fire in the Marina District (San Francisco). When combined with the 34 other fires locally and over 500 responses, the department was taxed to its fullest capabilities. The Marina Fire was difficult to contain because mains supplying water to the district burst during the earthquake. This situation creates the need for both additional fire protection and automatic on-site fire protection for building occupants. State Department of Conservation noted in their 1988 report (Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, page 59), "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe."
- B. Road circulation features located throughout Orange also make amendments reasonably necessary. Located within the City are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanied with occasional heavy rainfall, cause roadway flooding and landslides and at times may make an emergency access route impassable. There are areas in Orange that naturally have extended emergency response times that exceed the 5 minute goal.

- C. Soils throughout the City possess corrosive properties that reduce the expected usable life of water services when metallic pipes in contact with soils are utilized.
- D. Portions of the City contain active or former flammable gas and/or liquid production fields, as well as methane-producing closed landfills. These areas contain a variety of naturally occurring gases, liquids and vapors. These compounds present toxicity or flammability hazards to building occupants. Evaluation of these hazards and the risks they pose to development is necessary implement appropriate mitigation.

III. Summary

Due to the topographical conditions of sprawling development separated by waterways and narrow and congested streets and the expected infrastructure damage inherent in seismic zone described above, it is prudent to rely on automatic fire sprinkler systems to mitigate extended fire department response time and keep fires manageable with reduced fire flow (water) requirements for a given structures. Additional fire protection is also justified to match the current resources of firefighting equipment and personnel within the Orange City Fire Department.

ADOPTED this 12th day of November, 2013



Teresa E. Smith, Mayor, City of Orange

ATTEST:



Mary E. Murphy, City Clerk, City of Orange

I, MARY E. MURPHY, City Clerk of the City of Orange, California, do hereby certify that the foregoing Resolution was duly and regularly adopted by the City Council of the City of Orange at a regular meeting thereof held on the 12th day of November, 2013, by the following vote:

AYES: COUNCILMEMBERS: Alvarez, Whitaker, Smith, Murphy
NOES: COUNCILMEMBERS: None
ABSENT: COUNCILMEMBERS: None
ABSTAIN: COUNCILMEMBERS: Bilodeau



Mary E. Murphy, City Clerk, City of Orange

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



January 24, 2014

Robert Stefano
Services Deputy Chief/Fire Marshal
Orange City Fire Department
176 S. Grand Street
Orange, CA 92866-1591

RE: Ordinance #16-13

Dear Mr. Stefano:

This letter is to advise you of our determination regarding the referenced ordinance with express findings received from your agency on December 18, 2013.

Our review finds the submittal to contain one ordinance modifying provisions of the 2013 California Building Standards Code in Title 24, California Code of Regulations (code), and express findings complying with Health and Safety Code §§17958.7 and 18941.5. The code modification is accepted for filing and is enforceable. This letter attests only to the satisfaction of the cited law for filing of local code amendment supported by an express finding with the Commission. The Commission is not authorized by law to evaluate the merit of the code modification or the express finding.

Local modifications to the code are specific to a particular edition of the code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the code is published.

On a related matter, should your city receive and ratify Fire Protection District ordinances making modifications to the code, be advised that Health and Safety Code §13869.7(c) requires such ratified ordinances and express findings to be filed with the Department of Housing and Community Development, Division of Codes and Standards, State Housing Law Program, rather than this Commission. Also, ordinances making modifications to the energy efficiency standards of the code may require approval from the California Energy Commission pursuant to Public Resources Code §25402.1(h)(2).

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

A handwritten signature in blue ink, appearing to read "Enrique M. Rodriguez".

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings

O'Brien, Laurie@DGS

From: Ian Macdonald <imacdonald@cityoforange.org>
Sent: Wednesday, December 18, 2013 8:19 AM
To: OrdinanceFilings@DGS
Cc: Robert Stefano; Pat Dibb; Gregory Hastings; David Khorram; Denah Hoard
Subject: City of Orange -- Local Filing with respect to Title 24 Part 9
Attachments: 2013 Findings Matrix.pdf; 2013 CFC Amendment Package Expressly Marked.pdf; Ord 16-13 (Signed Copy).pdf; Reso 10742 (Signed Copy).pdf; 2013 CBSC Cover Letter (signed).pdf

Dear Building Standards Commission,

Please see the following attachments:

1. Local filing notification letter from Deputy Chief/ Fire Marshal Stefano
2. Resolution 10742 itemizing express findings of fact regarding local climatic, geologic and topographic conditions necessitating local amendments to Title 24 Part 9
3. Expressly marked modifications to Title 24 Part 9
4. A matrix itemizing rationale for each amendment with respect to express findings
5. City of Orange Ordinance 16-13 adopting said amendments

Please contact me immediately with any questions or concerns regarding this filing. I am also mailing a hard copy of each document for your convenience.

Sincerely,
Ian MacDonald

Ian MacDonald, Acting Battalion Chief
Deputy Fire Marshal/ PIO
Orange City Fire Department
(714) 288-2550
imacdonald@cityoforange.org

Working for the safety of the community of Orange.





ORANGE CITY FIRE

FIRE DEPARTMENT

PHONE: (714) 288-2500 • FAX: (714) 744-6035

www.cityoforange.org

December 17, 2013

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Dear Commissioners,

Enclosed is a copy of our recent 2013 California Fire Code adoption, amendments, findings, and the resolution adopting the findings. I am submitting this to you in compliance with CCR T-24, incorporating the latest editions of the model codes.

This submittal is made according to California Building Standards Law which states the following: "The amendments are neither effective nor operative until copies of both the express findings and the amendments, with the amendments expressly marked and identified as to the applicable findings, have been filed with the California Building Standards Commission".

If you have any questions or require further information, I can be reached at (714) 288-2541 Monday through Thursday 7am - 5pm.

Respectfully,

Robert Stefano
Services Deputy Chief/ Fire Marshal

Enclosures

2013 California Fire Code
City of Orange Local Amendments
Findings Matrix

CODE SECTION	TITLE (Clarification)	FINDINGS I, II, III
101.1	Title	Admin
103.2	Appointment	Admin
105.1.1	Permits required	Admin
105.4.2	Information on construction documents	Admin
105.6.29	Miscellaneous combustible storage	Admin
105.6.48	Day-care	Admin
105.6.49	Day-care, large family	Admin
105.6.50	High-rise buildings	Admin
109.2.1	Fire and life safety hazards	Admin
109.4	Violation penalties	Admin
202	General definitions (Flow-Line, Hazardous Fire Area, High-Rise Building)	IIIA; IIIB
304.1.2	Vegetation	IA-D; IIA
304.4	Disposal of rubbish	N/A
305.5	Chimney spark arrestors	I & II
305.6	Outdoor fires	N/A
307.1.2	Fuel Modification Area	N/A
307.2.3	Where prohibited	N/A
307.5.1	Supervision	N/A
307.2.2	Hazardous conditions	N/A
307.6	Outdoor Fireplaces, Fire Pits, Fire Rings, and Outdoor Fireplaces	N/A
307.6.1	Gas-fueled devices	I & II

307.6.2	Devices using wood or fuels other than natural gas or LPG	I & II
307.6.2.1	Where prohibited	I & II
319	Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors	III
320	Fuel modification requirements for new construction	N/A
321	Clearance of brush or vegetation growth from roadways	N/A
322	Unusual circumstances	N/A
323	Use of equipment	N/A
323.1	Spark arrestors	N/A
324	Restricted entry (In hazardous area)	N/A
325	Trespassing on posted property	N/A
326	Sky Lanterns or similar devices	I & II
503.2.1	Dimensions (Fire Lanes)	N/A
503.2.1.1	Hazardous fire areas	N/A
503.2.2	Divided fire access roads	N/A
503.6	Security gates	N/A
505.1	Address identification	IIB; IIIB
505.1.1	Building complexes	IIB; IIIB
510.1	Emergency responder radio coverage in new buildings	IIIA
510.2	Emergency responder radio coverage in existing buildings	Admin
510.3	Permit Required	Admin
510.4	Technical requirements	Admin
510.5	Installation requirements	Admin
510.6	Maintenance	Admin
606.10.2	Scope	IB; IIIA; IIIB
608.1	Scope (Battery Systems)	IB; IIIA; IIIB
608.10	Indoor charging of electric carts/cars	IB; III-A; IIIB

901.6.1.1	Maintenance of smoke alarms in apartment buildings	Admin
903.2	Where required (Sprinklers)	IB; IIA; IIB; IIC; IIIA; III-B
903.3.5.3	Hydraulically calculated systems	IB; IIA; IIB; IIC; IIIA; III-B
903.4	Sprinkler system supervision and alarms (of valves)	IB; IIA; IIB; IIC; IIIA; III-B
903.4.3	Locking of control valves	IB; IIA; IIB; IIC; IIIA; III-B
905.4	Location of Class I standpipe hose connections	III-A
907.2.13	High-rise buildings (Alarm Systems)	Admin
907.3.1	Duct smoke detectors	IIB; IIC; III-A; IIIB
907.5.2.2	Emergency voice/alarm communication system	IIB; IIC; III-A; IIIB
907.6.3.2	High-rise buildings	Admin
907.6.5.4	Monitoring of fire-extinguishing systems	IIB; IIC; III-A; IIIB
2808.2	Storage site	N/A
2808.3	Size of piles	N/A
2808.7	Pile fire protection	N/A
2808.9	Material-handling equipment	N/A
2808.11	Temperature control	N/A
2808.11.1	Pile temperature control	N/A
2808.11.2	New material temperature control	N/A
4906.3	Vegetation	N/A
4908	Fuel modification requirements for new construction	N/A
5001.5.1	Hazardous Materials Management Plan (HMMP)	Admin
5001.5.2	Hazardous materials inventory statement (HMIS)	Admin
5003.1.1(1)	Maximum allowable quantity per control area	III & III
5003.1.1.1	Extremely hazardous substances	IB; IIA; IIB; IIIA; IIIB
5004.12	Noncombustible floor	IIIA; III-B
5601.2	Retail fireworks	N/A
5601.3	Seizure of fireworks	N/A

5602	Explosives prohibited	N/A
5608.1	General (Fireworks)	N/A
5608.2	Firing (Fireworks)	N/A
5612	Displays (Fireworks)	N/A
5704.2.9.6.1	Location where above-ground tanks are prohibited	Admin
5704.2.11	Underground tanks	Admin
6004.2.2.7	Treatment systems (Highly toxic & toxic material)	IB; IIIA; IIIB
Chapter 50	Reference Standards	
	2010 NFPA 13 (Sprinkler Systems)	Admin, IB; IC; IIB; IIC; IIIA; IIIB
	2010 NFPA 13-R (Multi-Family Sprinkler Systems)	IB; IC; IIB; IIC; IIIA; IIIB
	2010 NFPA 13-D (Single Family Sprinkler Systems)	IB; IC; IIB; IIC; IIIA; IIIB
	2007 NFPA 14 (Standpipe Systems)	IB; IC; IIB; IIC; IIIA; IIIB
	2010 NFPA 24 (Underground Water Supply Systems)	IB; IC; IIB; IIC; IIIA; IIIB; IIIC
	2010 NFPA 72 (Fire Alarm Systems)	Admin; IB; IIB; IIIA; IIIB
C101.1	Scope (Fire hydrants)	IB; IIB; IIIA; IIIB

RESOLUTION NO. 10742

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ORANGE SETTING FORTH FINDINGS WITH RESPECT TO LOCAL CONDITIONS WITHIN THE CITY OF ORANGE JUSTIFYING MODIFICATIONS AND CHANGES TO THE CALIFORNIA FIRE CODE.

WHEREAS, the Health & Safety Code provides that the City of Orange shall be governed by the same requirements as those found in the California Fire Code unless the City Council acts to change the requirements; and

WHEREAS, the Health & Safety Code permits the City Council to make such changes or modifications to the California Fire Code as are reasonably necessary because of local conditions; and

WHEREAS, the Health & Safety Code requires that the City Council, make express findings before making any changes or modifications to the California Fire Code, such changes or modifications to the Code must be done in response to local climatic, geographic, or topographic conditions; and

WHEREAS, the Fire Chief has recommended amendments to the 2013 California Fire Code as set forth in Ordinance 16-13 because of local climatic, geographical and topographical conditions; and

WHEREAS, modifications to the 2013 California Fire Code are required as a result of the following local climatic, geographical and topographical conditions. The changes and modifications to the 2013 California Fire Code are found in Ordinance 16-13.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Orange as follows:

1. The foregoing recitals are true and correct.
2. The City Council finds the following local climatic, geographical and topographical conditions exist in the City of Orange:
 - I. Climatic Conditions
 - A. The jurisdiction of Orange is located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services

throughout the City. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

- B. The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Orange City Fire Department's ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within the City.
- C. Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly 10 million over the next quarter of a century with 50 percent of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.
- D. These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in high-density housing or vegetation. These fires spread very quickly and create a need for increased levels of fire protection. The added protection of fire sprinkler systems and other fire protection features will supplement normal fire department response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. Fire sprinkler systems will also reduce the use of water for firefighting by as much as 50 to 75 percent.

Topographical Conditions

- E. Natural; slopes of 15 percent or greater generally occur throughout the foothills of the city of Orange. The elevation change caused by the hills creates the geological foundation on which the community of Orange is built and will continue to build. With much of the populated flatlands already built upon, future growth will occur on steeper slopes and greater constraints in terrain.
- F. Traffic and circulation congestion is an artificially created, obstructive topographical condition, which is common throughout Orange.

- G. These topographical conditions combine to create a situation, which places fire department response time to fire occurrences at risk, and makes it necessary to provide automatic on-site fire-extinguishing systems and other protection measures to protect occupants and property.

II. Geological Conditions

The city of Orange, in the Orange County region, is a densely populated area that has buildings constructed over and near a vast and complex network of faults that are believed to be capable of producing future earthquakes similar or greater in size than the 1994 Northridge and the 1971 Sylmar earthquakes. Earthquake faults run along the northern, eastern and central areas of the City. The Newport-Inglewood Fault, located within Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude) which took 120 lives and damaged buildings in an area from Laguna Beach to Marina Del Rey to Whittier. In December 1989, another earthquake occurred in the jurisdiction of Orange at an unknown fault line. Regional planning for reoccurrence of earthquakes is recommended by the state of California, Department of Conservation.

- A. Previous earthquakes have been accompanied by disruption of traffic flow and fires. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors of buildings. The October 17, 1989, Santa Cruz earthquake resulted in one major fire in the Marina District (San Francisco). When combined with the 34 other fires locally and over 500 responses, the department was taxed to its fullest capabilities. The Marina Fire was difficult to contain because mains supplying water to the district burst during the earthquake. This situation creates the need for both additional fire protection and automatic on-site fire protection for building occupants. State Department of Conservation noted in their 1988 report (Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, page 59), "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe."
- B. Road circulation features located throughout Orange also make amendments reasonably necessary. Located within the City are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanied with occasional heavy rainfall, cause roadway flooding and landslides and at times may make an emergency access route impassable. There are areas in Orange that naturally have extended emergency response times that exceed the 5 minute goal.

- C. Soils throughout the City possess corrosive properties that reduce the expected usable life of water services when metallic pipes in contact with soils are utilized.
- D. Portions of the City contain active or former flammable gas and/or liquid production fields, as well as methane-producing closed landfills. These areas contain a variety of naturally occurring gases, liquids and vapors. These compounds present toxicity or flammability hazards to building occupants. Evaluation of these hazards and the risks they pose to development is necessary implement appropriate mitigation.

III. Summary

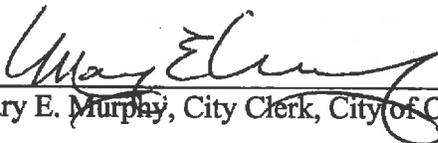
Due to the topographical conditions of sprawling development separated by waterways and narrow and congested streets and the expected infrastructure damage inherent in seismic zone described above, it is prudent to rely on automatic fire sprinkler systems to mitigate extended fire department response time and keep fires manageable with reduced fire flow (water) requirements for a given structures. Additional fire protection is also justified to match the current resources of firefighting equipment and personnel within the Orange City Fire Department.

ADOPTED this 12th day of November, 2013



Teresa E. Smith, Mayor, City of Orange

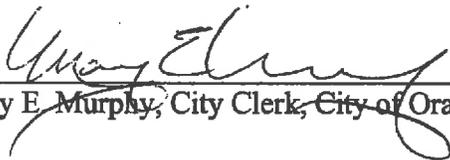
ATTEST:



Mary E. Murphy, City Clerk, City of Orange

I, MARY E. MURPHY, City Clerk of the City of Orange, California, do hereby certify that the foregoing Resolution was duly and regularly adopted by the City Council of the City of Orange at a regular meeting thereof held on the 12th day of November, 2013, by the following vote:

AYES: COUNCILMEMBERS: Alvarez, Whitaker, Smith, Murphy
NOES: COUNCILMEMBERS: None
ABSENT: COUNCILMEMBERS: None
ABSTAIN: COUNCILMEMBERS: Bilodeau



Mary E. Murphy, City Clerk, City of Orange

ORDINANCE NO. 16-13

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ORANGE DELETING CHAPTER 15.32, CITY OF ORANGE FIRE CODE, IN ITS ENTIRETY AND ADDING CHAPTER 15.32, ADOPTING AND AMENDING THE 2013 CALIFORNIA FIRE CODE AND PORTIONS OF THE 2012 INTERNATIONAL FIRE CODE AS THE CITY OF ORANGE FIRE CODE, TO TITLE 15 (BUILDINGS AND CONSTRUCTION) OF THE ORANGE MUNICIPAL CODE.

WHEREAS, the City of Orange Fire Department is responsible for enforcing the fire and safety regulations of the State Fire Marshal; and

WHEREAS, the State Fire Marshal's building standards regulations are incorporated in the 2013 California Fire Code; and

WHEREAS, the City is subject to the California Fire Code, as written, effective January 1, 2014 unless the City adopts amendments to said Code, with the appropriate findings supporting such amendments; and

WHEREAS, cities are allowed to make amendments to State building standards when justified by local topographical, climactic and geographical conditions; and

WHEREAS, contemporaneously herewith the City Council has made appropriate findings that justify amendments to the California Fire Code based on local topographical, climactic and geographical conditions in Resolution No. 10742; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ORANGE DOES ORDAIN AS FOLLOWS:

SECTION I:

Chapter 15.32, City of Orange Fire Code, is deleted in its entirety and is hereby replaced with Chapter 15.32, adopting the 2013 California Fire Code and Chapter 1, Division II, Sections 305, 307, 308, 503, 510.2 and appendices B and C of the 2012 International Fire Code to read as amended below:

Chapter 15.32 CITY OF ORANGE FIRE CODE

15.32.010 Adoption by Reference

The City Council adopts by reference the California Fire Code, 2013 Edition, and Chapter 1, Division II, Sections 305, 307, 308, 503, 510.2 and appendices B and C of the International Fire Code as published by the International Code Council, as hereinafter amended, modified or altered. Such Codes are adopted by reference, for the purpose of safeguarding the public from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises. One copy of the codes has been and is now on file in the office of the City Clerk, and the codes are adopted by reference as if incorporated and set out at length in this chapter. The provisions therein shall be controlling within the limits of the City of Orange and shall be designated, known and referred to as the Orange Fire Code.

15.32.020 Section 101.1 Amended – Title.

101.1 Title. These regulations shall be known as the Orange Fire Code hereinafter referred to as “this code.”

15.32.025 Section 103.2 Amended – Appointment.

103.2 Appointment. The fire code official shall be appointed by the fire chief and may be removed at any time.

15.32.030 Section 105.1.1 Amended – Permits required.

105.1.1 Permits required. When a permit is required by this code, a current permit conforming to the requirements of Section 105 shall be required to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done.

15.32.035 Section 105.4.2 Amended – Information on construction documents.

105.4.2 Information on construction documents. Construction documents shall be drawn to scale upon suitable material. Plans shall be submitted in both paper and electronic formats as detailed in the City of Orange Fire Department Plan Submittal Guidelines. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail but it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations as determined by the fire code official.

15.32.040 Section 105.6.29 Amended – Miscellaneous combustible storage.

105.6.29. Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, green waste, composting, yard waste, or similar combustible material.

15.32.042 Section 105.6.48 Added – Day-care.

105.6.48 Day-care. An operational permit is required to operate a day-care center.

15.32.044 Section 105.6.49 Added – Day-care, large family.

105.6.49 Day-care, large family. An operational permit is required to operate a large family day-care home.

15.32.046 Section 105.6.50 Added – High-rise buildings.

105.6.50 High-rise buildings. An operational permit is required to operate a high-rise building.

15.32.050 Section 109.2.1 Added – Fire and life safety hazards.

109.2.1 Fire and life safety hazards. Persons operating, maintaining or controlling any occupancy, premises or vehicle subject to this code shall neither create, nor allow to exist, any condition deemed a fire or life safety hazard by the fire code official.

15.32.060 Section 109.4 Amended – Violation penalties.

109.4 Violation penalties. Persons who violate a provision of this code or fail to comply with any of the requirements thereof or who 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 subject to prosecution in accordance with Chapter 1.08 of the Orange Municipal Code.

15.32.070 Section 202 – Added: “Flow-line,” “Hazardous Fire Area,” “Sky Lantern” and Revised: “High-Rise Building.”

FLOW-LINE. The lowest continuous elevation on a curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

HAZARDOUS FIRE AREA. Includes all areas identified within Section 4906.2 and other areas as determined by the Fire Code Official as presenting a fire hazard due to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

HIGH-RISE BUILDING. In other than Group I-2 occupancies, “high-rise buildings” as used in this Code:

Existing high-rise structure. A high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.

High-rise structure. Every building of any type of construction or occupancy having floors used for human occupancy located more than 55 feet above the lowest floor level having building access, except buildings used as hospitals as defined in Health and Safety Code Section 1250.

New high-rise building. A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this Section, construction shall be deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this Section have been met, the construction of such buildings shall commence on or before January 1, 1976.

New high-rise structure. means a high-rise structure, the construction of which commenced on or after July 1, 1974.

SKY LANTERN. An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.

15.32.080 Section 304.1.2 Amended – Vegetation.

Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with Chapter 49 and Orange City Fire Department vegetation management guidelines.

15.32.090 Section 304.4 Added – Disposal of rubbish.

304.4 Disposal of rubbish. Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.

15.32.100 Section 305.5 Added – Chimney spark arresters.

305.5 Chimney spark arresters. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. Chimneys serving outdoor appliances or fireplaces shall be equipped with a spark arrester. The spark arrester shall meet the requirements of Section 2113.9.2 of the California Building Code.

15.32.110 Section 305.6 Added – Outdoor fires.

305.6 Outdoor fires. Outdoor fires shall be in accordance with Sections 305, 307, and 308 and other applicable Sections of this code.

15.32.120 Section 307.1.2 Added – Fuel modification areas.

307.1.2 Fuel modification areas. Outdoor fires using wood or other solid fuel shall not be built, ignited or maintained in a fuel modification area.

15.32.130 Section 307.2.2 Added – Hazardous conditions.

307.2.2 Hazardous conditions. Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

15.32.140 Section 307.2.3 Added – Where prohibited.

307.2.3 Where prohibited. Outdoor fires shall not be built, ignited or maintained in fuel modification areas, Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) or Special Fire Protection Areas (SFPA) or other locations where conditions could cause the spread of fire to the WRA, SFPA or FHSZ in the opinion of the fire code official, except by permit from the fire code official.

Exception: A permit is not required for the following:

1. Fires in approved outdoor or portable fireplaces, fire pits, fire rings and similar devices at Group R occupancies that are installed and used in accordance with this code.
2. Outdoor fires at inhabited premises or official organized campsites or parks when located in a permanent or portable barbeque or grill, incinerator, or outdoor fireplace located at least 30 feet from combustible vegetation.
3. Other installations or uses approved by the fire code official.

15.32.150 Section 307.5.1 Added – Supervision.

307.5.1 Supervision. Where a permit is issued or when allowed under the exceptions to Section 305.6.1, such fires shall be supervised by a person 18 years of age or older.

15.32.160 SECTION 307 Amended – OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES.

SECTION 307 OPEN BURNING, RECREATIONAL FIRES, FIRE PITS, FIRE RINGS, AND OUTDOOR FIREPLACES

15.32.170 Section 307.6 Added – Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies.

307.6 Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies. Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R shall comply with this Section.

Exception: Barbeques, grills, and other portable devices used solely for cooking are not regulated by this section.

15.32.180 Section 307.6.1 Added – Gas-fueled devices.

307.6.1 Gas-fueled devices. Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the building code official and the device is designed to only burn a gas flame and not wood or other solid fuel. At properties containing Group R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At properties of other than Group R occupancies, the minimum distance shall be ten feet. Where a permanent hood and vent approved by the building code official is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester in accordance with Section 305.5.

15.32.190 Section 307.6.2 Added – Devices using wood or fuels other than natural gas or liquefied-petroleum gas.

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code and Section 305.5. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be managed per Section 307.5.

15.32.200 Section 307.6.2.1 Added – Where prohibited.

307.6.2.1 Where prohibited. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) and Special Fire Protection Areas (SFPA) or in locations where conditions could cause the spread of fire to the WRA or FHSZ, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

15.32.210 Section 319 Added – Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors.

319 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 has, or is adjacent to, or within 1,000 feet (304.8 m) 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.

15.32.220 Section 320 Added – Fuel modification requirements for new construction.

320 Fuel modification requirements for new construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of Orange City Fire Department Vegetation Management Guidelines currently in use at the time of plan submittal.

15.32.230 Section 321 Added – Clearance of brush or vegetative growth from roadways.

321 Clearance of brush or vegetative 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. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces.

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 in the opinion of the fire code official.

15.32.240 Section 322 Added – Unusual circumstances.

322 Unusual circumstances. The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that 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.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

15.32.250 Section 323 Added – Use of equipment.

323 Use of equipment. Except as otherwise provided in this Section, no person shall use, operate, or cause to be operated in, upon or adjacent to any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a properly functioning spark arrester as defined in Section 323.1, or the engine is constructed, equipped and maintained for the prevention of fire.

Exceptions:

1. 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.
2. 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 good mechanical condition

15.32.260 Section 323.1 Spark Arresters is hereby added as follows:

323.1 Spark arresters. Spark arresters shall comply with the following:

1. 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.
2. Spark arresters affixed to the exhaust system of engines or vehicles subject to Section 322 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. Chimney spark arresters shall be required in accordance with Section 305.5

15.32.270 Section 324 Added – Restricted entry.

324 Restricted entry. The fire code official shall determine and publicly announce when hazardous fire areas are closed to entry and when such areas are again 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.

Exceptions:

1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands may enter when an area is closed if given permission by the fire code official.

2. Entry into closed areas is allowed, 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.

15.32.280 Section 325 Added – Trespassing on posted property.

325 Trespassing on posted property. 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 provided below:

1. **Signs.** Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.
2. **Trespassing.** Entering and remaining within areas closed and posted is prohibited.

Exception:

Owners and tenants of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their agents acting in the course of duty shall be allowed in such closed areas where authorized by the fire code official.

15.32.290 Section 326 Added – Sky lanterns and similar devices.

326 Sky Lanterns and similar devices. Possession or use of a sky lantern or similar device employing a candle, flame or other potential ignition source shall be prohibited.

15.32.300 Section 503.2.1 Amended – Dimensions.

- **503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flow-line to flow-line on streets with rolled curbs.

15.32.310 Section 503.2.1.1 Added – Hazardous fire areas.

503.2.1.1 Hazardous fire areas. Fire apparatus roads in hazardous fire areas shall have an unobstructed width of not less than 28 feet (8530 mm). The width shall be maintained to an approved point outside of the Hazardous Fire Area.

Exception: When the road serves no more than three dwelling units and the road does not exceed 150 feet in length, the road width may be 24 feet (7300 mm). This length may be increased to 400 feet where serving no more than three dwelling units and all structures accessed from the roadway are protected by automatic fire sprinklers.

15.32.315 Section 503.2.2 Added – Divided fire access roads.

503.2.2 Divided fire access roads. Divided fire access roads shall be subject to review and approval by the fire code official. Each lane shall be a minimum width of 14 feet.

15.32.320 Section 503.6 Amended – Security gates.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. Vehicle access gates or barriers shall be in accordance with the City of Orange Fire Master Plan Guidelines. All electrically operated vehicle access gates shall be equipped with an automatic opening device in addition to a key opening switch.

15.32.330 Section 505.1 Amended – Address Identification.

505.1 Address Identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) for R-3 occupancies. For all other occupancies, the numbers shall be a minimum of 6 inches high with a minimum stroke width of 1 inch, and shall be approved by the fire code official. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

15.32.335 Section 505.1.1 Added – Building complexes.

505.1.1 Building complexes. Approved diagrammatic representations shall be positioned at all entrances to building complexes. The diagrammatic representations shall show the overall site, location of the viewer, buildings and units and the addresses or unit designations within the complex, and shall be internally or externally illuminated as approved during the hours of darkness.

15.32.340 Section 510.1 – Emergency responder radio coverage.

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This Section shall not require improvement of the existing public safety communication systems. The Emergency responder radio coverage system shall be installed in accordance with the City of Orange Emergency Responder Digital Radio Guideline.

Exceptions:

1. Where it is determined by the fire code official that the radio coverage system is not needed.
2. The fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system in facilities where emergency responder radio coverage is required and such systems, components or equipment could have a negative impact on normal operations of the facility.

15.32.341 Section 510.2 Deleted – Emergency responder radio coverage in existing buildings.

15.32.342 Section 510.3 Deleted – Permit required.

15.32.343 Section 510.4 Deleted – Technical requirements.

15.32.344 Section 510.5 Deleted – Installation requirements.

15.32.345 Section 510.6 Deleted – Maintenance

15.32.350 Section 606.10.2 Amended – Manual Operation

606.10.2 Manual Operation. An automatic emergency stop feature shall be provided in accordance with Sections 606.10.2.1 and 606.10.2.2, and 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 or equivalent and marked as “Emergency Controls.”

15.32.360 Section 608.1 Amended – Scope.

608.1 Scope. 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 and lithium metal polymer, used for facility standby power, emergency power or uninterruptible power supplies shall comply with this Section and Table 608.1. Indoor charging systems for electric carts/cars with more than 50 gallons (189 L) aggregate quantity shall comply with Section 608.10.

15.32.370 Section 608.10 Added – Indoor charging of electric carts/cars.

608.10 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all battery electrolyte exceeds 50 gallons shall comply with following:

1. Spill control and neutralization shall be provided and comply with Section 608.5.
2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7.1
4. Smoke detection shall be provided and comply with Section 907.2

15.32.380 Section 901.6.1.1 Added – Maintenance of smoke alarms in apartment buildings

901.6.1.1 Maintenance of smoke alarms in apartment buildings. Installation and maintenance of smoke alarms in apartment buildings shall conform to the following:

1. Apartment building owners shall supply, install, test and maintain all required smoke alarms before renting to a new tenant. The amount and types of smoke alarms shall conform to the California Building Code in effect at the time of building construction and requirements for existing buildings.
2. The tenant shall be responsible for testing of all required smoke alarms in accordance with manufacturer instructions in his or her respective dwelling unit. Within 60 days of the first of each year, the owner shall request each tenant for the status of all smoke alarms.
3. Within 10 days of receiving the smoke alarm status request, and in no event later than March 10 of each year, each tenant shall notify the owner, in writing, on a form provided by the owner, of the condition of each required smoke alarm installed in the dwelling unit.
4. Upon receipt of a written notice from a tenant that a smoke alarm is in need of maintenance or replacement, the owner shall perform such maintenance as is necessary within 10 days of receipt of such notification.
5. The hotel or apartment owner shall maintain records of compliance for a period of three years from March 10 of each year.

15.32.390 Section 903.2 Amended – Where required.

903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided when one of the following conditions exists.

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, all buildings shall be protected throughout by an automatic fire sprinkler system when the total building area exceeds 5,000 square feet in Types I, II, III and IV construction, and 3000 square feet in Type V construction as defined in the California Building Code, regardless of fire areas or allowable area.

Exceptions:

1. Buildings with areas reduced to less than that requiring fire sprinklers using 3-hour minimum rated fire walls constructed in accordance with the California Building Code Chapter 7.
 2. Open parking garages, fences, retaining walls, towers classified as Group U occupancies, and tanks.
2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an existing building shall be protected throughout by an automatic fire sprinkler system when the building meets the conditions for required automatic fire sprinkler protection throughout, and one or more of the following conditions occurs:
- a. An increase in area is made to the building,

Exception: Buildings housing Group R-3 fire occupancies shall be protected throughout by an automatic fire sprinkler system when the area of the building is increased, resulting in an area exceeding 5,000 square feet.

- b. A change is made to the occupancy classification and use of the building which increases the level of hazard as determined by the fire code official, or
- c. A significant modification is made to the building, or a modification impacts the structural system of the building as determined by the fire code official.

15.32.400 Section 903.3.5.3 Added – Hydraulically calculated systems.

903.3.5.3 Hydraulically calculated systems. The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity. The capacity shall be calculated using a combination of the following criteria:

1. The lower of the following:
 - a. the lowest water supply capacity determined by the water purveyor serving the closest fire hydrant serving the address in the last consecutive three years.
 - b. the lowest water supply flow test conducted in accordance with National Fire Protection Association (NFPA) within the last 12 calendar months.
2. Subtraction of the head pressure of the tallest tank supplying water to the fire hydrant flowing water, assuming the tank is full at the time of the test and empty at the time of fire sprinkler activation.

15.32.410 Section 903.4 Amended – Sprinkler system supervision and alarms.

903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. 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.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
6. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

15.32.415 Section 903.4.3 Added – Locking of control valves.

903.4.3 Locking of control valves. All valves required to be electrically supervised by this section shall also be sealed or locked in the position of normal operation.

15.32.420 Section 905.4 Amended – Location of Class I standpipe hose connections is hereby amended by adding item 7 as follows:

7. The centerline of the 2.5 inch (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) and no more than 24 inches above the finished floor.

15.32.430 Section 907.2.13 Amended – High-rise buildings.

907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 55 feet above the lowest level of fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 55 feet above the lowest level of fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the California Building Code.
2. Open parking garages in accordance with Section 406.5 of the California Building Code.

3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the California Building Code.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the California Building Code.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system

15.32.440 Section 907.3.1 Amended – Duct smoke detectors.

907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. 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.

15.32.450 Section 907.5.2.2 Amended – Emergency voice/alarm communication systems.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow 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 in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At 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 Chapter 2.
5. Dwelling units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-2 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

15.32.460 Section 907.6.3.2 Amended – High-rise buildings.

907.6.3.2 High-rise buildings. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet 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 detection devices or suppression systems.

15.32.470 Section 907.6.5.4 Added – Monitoring of fire-extinguishing systems.

907.6.5.4 Monitoring of fire-extinguishing systems. Where a building fire alarm or monitoring system is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm or monitoring system in accordance with NFPA 72.

15.32.480 Section 2808.2 Amended – Storage site.

2808.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from the fire code official obtained before transferring products to the site.

15.32.490 Section 2808.3 Amended – Size of piles.

2808.3 Size of piles. Piles shall not exceed 15 feet (4572 mm) in height, 50 feet (15 240 mm) in width and 100 feet (30 480 mm) in length.

15.32.500 Section 2808.7 Amended – Pile fire protection.

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

15.32.510 Section 2808.9 Amended – Material-handling equipment.

2808.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

15.32.520 Section 2808.11 Added – Temperature control.

2808.11 Temperature control. The temperature shall be monitored and maintained as specified in Sections 2808.11.1 and 2808.11.2.

15.32.530 Section 2808.11.1 Added – Pile temperature control.

2808.11.1 Pile temperature control. Piles shall be rotated when the internal temperature readings are in excess of 165 degrees Fahrenheit.

15.32.540 Section 2808.11.2 Added – New material temperature control.

2808.11.2 New material temperature control. New loads delivered to the facility shall be inspected and tested at the facility entry prior to taking delivery. Material with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the site. New loads shall be monitored to verify that the temperature remains stable.

15.32.550 Section 4906.3 Amended – Hazardous vegetation and fuel management requirements.

4906.3 Requirements. Hazardous vegetation and fuels around all applicable buildings and structures shall be maintained in accordance with the following laws and regulations:

1. Public Resources Code, Section 4291.
2. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299 (see guidance for implementation “General Guideline to Create Defensible Space”).
3. California Government Code, Section 51182.
4. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.
5. Orange City Fire Department Vegetation Management Guidelines.

15.32.560 Section 4908 Added – Fuel modification requirements for new construction.

4908 Fuel modification requirements for new construction. All new buildings to be built or installed in hazardous fire areas 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.
 - a. The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange City Fire Department Vegetation Management Guidelines.

4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from 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.

15.32.570 Section 5001.5.1 Amended – Hazardous Materials Management Plan (HMMP)

5001.5.1 Hazardous Materials Management Plan (HMMP). Where required by the fire code official, and application for a permit shall include an HMMP. The application shall be submitted by March 1 of each year or as required by the fire code official. The HMMP shall include a facility site plan designating the following:

1. Access to each storage and use area.
2. Location of emergency equipment.
3. Location where liaison will meet emergency responders.
4. Facility evacuation meeting point locations.
5. The general purpose of other areas within the building.
6. Location of all above-ground and underground tanks and their appurtenances including, but not limited to, sumps, vaults, below-grade treatment systems and piping.
7. The hazard classes in each area.
8. Locations of all control areas and Group H occupancies.
9. Emergency exits.

[For SFM] The HMMP shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

15.32.580 Section 5001.5.2 Amended – Hazardous Materials Inventory Statement (HMIS).

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the fire code official, an application for a permit shall include an HMIS. The HMIS shall be submitted by March 1 of each year or as required by the fire code official, and shall include the following information:

1. Product Name
2. Component
3. Chemical Abstract Service (CAS) number
4. Location where stored or used.
5. Container size
6. Hazard classification
7. Amount in storage
8. Amount in use-closed systems

9. Amount in use-open systems.

[For SFM] The HMIS shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

15.32.590 Table 5003.1.1(1) Amended – Maximum allowable quantity per control area of hazardous materials posing a physical hazard is hereby amended by deleting Footnote K without replacement as follows:

15.32.600 Section 5003.1.1.1 Added – Extremely hazardous substances.

5003.1.1.1 Extremely hazardous substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residentially zoned or residentially developed property.

15.32.610 Section 5004.12 Amended – Noncombustible floor.

5004.12 Noncombustible floor: Except for surfacing, floors of storage areas shall be of noncombustible, liquid tight construction.

15.32.620 Section 5601.2 Added – Retail fireworks.

5601.2 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.

Exception: 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

15.32.630 Section 5601.3 Added – Seizure of fireworks.

5601.3 Seizure of Fireworks. The fire code official shall have the authority to seize, take, remove all 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.

15.32.640 Section 5602 Added – Explosives prohibited.

5602 Explosives prohibited. The manufacture, sale, possession, storage, handling and use of explosives as defined in the California Code of Regulations, Title 19, Chapter 10, Section 1553 is prohibited.

Exceptions:

1. Explosives used as permitted by Orange Municipal Code Chapter 15.34, Blasting Permits.

2. Handled loading of small arms ammunition performed in accordance with Orange Municipal Code Chapter 15.32 for personal use.

15.32.650 Section 5608.1 Amended – General.

5608.1 General. Outdoor fireworks displays, use of pyrotechnics before a proximate audience and pyrotechnic special effects in theatrical and group entertainment productions shall comply with California Code of Regulations, Title 19, Division 1, Chapter 6 Fireworks, the Orange City Fire Department Guidelines for Public Fireworks Displays, and with the conditions of the permit as approved by the fire code official.

15.32.660 Section 5608.2 Added – Firing.

5608.2 Firing. All fireworks displays shall be electrically fired.

15.32.665 Section 5704.2.9.6.1 Amended – Location where above-ground tanks are prohibited.

5704.2.9.6.1 Location where above-ground tanks are prohibited. Above-ground tanks shall be prohibited except for the following locations:

1. M-1 or M-2 zones as established by the Planning Division of the City of Orange Community Development Department, and
2. As approved by the fire code official.

15.32.670 Section 5704.2.11 Amended – Underground tanks

5704.2.11 Underground tanks. Underground storage of flammable and combustible liquids in tanks shall comply with this Section, the applicable Sections of Chapter 50, and California Health and Safety Code (H&SC) Ch. 6.7.

15.32.680 Section 6004.2.2.7 Amended – Treatment systems.

6004.2.2.7 Treatment Systems. The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, and local exhaust systems required in Sections 6004.2.2.4 and 6004.2.2.5 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Chapter 5 of the California Mechanical Code.

Exceptions:

1 Toxic gases – storage/use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 1,700 pounds (772 kg) water capacity when the following are provided:

1.1 A listed or approved gas detection system with a sensing interval not exceeding 5 minutes.

1.2. For storage, valve outlets are equipped with gas-tight outlet plugs or caps.

1.3 For use, a listed and approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection system shall comply with Section 6004.2.2.10.

15.32.690 Ch. 80, Standard 13-13 Section 6.8.3 Amended – Fire department connections

6.8.3 Fire department connections (FDC) 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 40 feet from a fire hydrant, and at least 40 feet from the building it supplies unless otherwise approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water purveyor, it may be installed on the backflow assembly. Fire department inlet connections shall be painted “OSHA safety red.” Four 2 ½” inlets shall be provided when the automatic fire sprinkler system design (including system-supplied fire hose stream demand) requires 500 gpm or greater.

15.32.700 Ch. 80, Standard 13-13, Section 8.3.3.1 Amended – Spec buildings.

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 fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

- (1) Quick-response type as defined in 3.6.4.7
- (2) Residential sprinklers in accordance with the requirements of 8.4.5
- (3) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
- (4) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

15.32.710 Ch. 80, Standard 13-13, Section 11.1.1.2 Added – Spec building sprinkler density

11.1.1.2 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 16.2.1.3.2 (d) curve “G”. Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. 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.

15.32.720 Ch. 80, Standard 13R-13, Section 6.16.1 Amended – Local water flow alarm

6.16.1 A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided.

15.32.730 Ch. 80, Standard 13D-13, Section 4.1.3 Added – Spare sprinkler heads.

4.1.3 Stock of Spare Sprinklers

15.32.740 Ch. 80, Standard 13D-13, Section 4.1.3.1 Added – Number of spare heads

4.1.3.1. 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.

15.32.750 Ch. 80, Standard 13D-13, Section 4.1.3.2 Added – Temperature ratings.

4.1.3.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

15.32.760 Ch. 80, Standard 13D-13, Section 4.1.3.3 Added – Spare head cabinet.

4.1.3.3 The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100 °F (38°C).

15.32.770 Ch. 80, Standard 13D-13, Section 4.1.3.4 Added – Spare sprinkler wrench.

4.1.3.4 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.

15.32.780 Ch. 80, Standard 13D-13, Section 7.1.2 Amended – Separate control valve.

7.1.2 The system piping shall not have a separate control valve unless supervised by a central station, proprietary, or remote station alarm service.

15.32.790 Ch. 80, Standard 14-13, Section 7.3.1.1 Replaced – Standpipe inlet heights.

7.3.1.1 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.

15.32.800 Ch. 80, Standard 24-13, Section 6.2.1.1 Added – Indicating valve color.

6.2.1.1 The closest upstream indicating valve to the riser shall be painted “OSHA safety red.”

15.32.810 Ch. 80, Standard 24-13, Section 6.2.11 (5) Amended – Control valves.

(5) Control Valves installed in a fire-rated room accessible from the exterior.

(6) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

15.32.820 Ch. 80, Standard 24-13, Section 6.3.3 Added – Post indicator valve color

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted “OSHA safety red.”

15.32.830 Ch. 80, Standard 24-13, Section 10.1.6.3 Added – Ferrous pipe.

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-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this Section.

Exception: 304 or 316 Stainless Steel pipe and fittings

15.32.840 Ch. 80, Standard 24-13, Section 10.3.6.2 Amended – Bolted joint accessories.

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

Exception: Bolted joint accessories made from 304 or 316 stainless steel.

15.32.850 Ch. 80, Standard 24-13, Section 10.3.6.3 Added – Pipe-joint assembly

10.3.5.3 All bolts used in pipe-joint assembly shall be 316 stainless steel.

15.32.860 Ch. 80, Standard 24-13, Section 10.6.3.1 Replaced – Under-building runs.

10.6.3.1 Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.6.2.

15.32.870 Ch. 80, Standard 24-13, Section 10.6.4 Amended – Pipe under footings.

10.6.4 Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints.

15.32.875 Section B105.2 Amended – Buildings other than one- and two-family dwellings.

B105.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be specified in Table B105.1.

Exceptions:

1. A reduction in required fire flow of up to 50%, as approved, 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 for the prescribed duration as specified in table B105.1.
2. *[SFM] Group B, S-2 and U occupancies having a floor area not exceeding 1000 square feet, primarily constructed of noncombustible exterior walls with wood or steel roof framing, having a class A roof assembly, with uses limited to the following or similar uses:*
 - 2.1 *California State Parks buildings of an accessory nature (restrooms).*
 - 2.2 *Safety roadside rest areas (SRRA) public restrooms.*
 - 2.3 *Truck inspection facilities (TIF) CHP office space and vehicle inspection bays.*
 - 2.4 *Sand/salt storage buildings, storage of sand and salt.*

15.32.880 Appendix C, Section C101.1 Amended – Scope

C101.1 Scope. Fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed. Fire hydrants located in the public way which are connected to the City of Orange Water Department water system shall comply with City of Orange Water Department distribution requirements when approved by the fire code official.

SECTION II:

Severability – Should any sentence, section clause, part or provision of this ordinance be declared invalid, the same shall not affect the validity of the ordinance as a whole or any other part thereof.

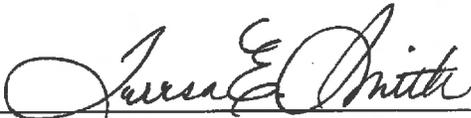
SECTION III:

Savings Clause – Neither the adoption of this ordinance nor the amendment hereby of any other ordinance of this City shall in any manner affect the prosecution for violations of ordinances, which violations were committed prior to the effective date hereof, nor to be construed as a waiver of any license or penalty or the penal provisions applicable to any violation thereof. The provisions of this ordinance, insofar as they are substantially the same as ordinance provisions previously adopted by the City related to the same subject matter, shall be constructed as restatements and continuations, and not as new enactments.

SECTION IV:

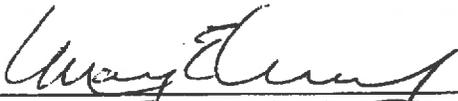
A summary of this Ordinance shall be published and a certified copy of the full text of this Ordinance shall be posted in the Office of the City Clerk at least five (5) days prior to the City Council meetings at which this Ordinance is to be adopted. A summary of this Ordinance shall also be published once within fifteen (15) days after this Ordinance's passage in a newspaper of general circulation, published, and circulated in the City Council members voting for and against the Ordinance in accordance with Government Code Section 36933. This Ordinance shall take effect thirty (30) days from and after the date of its final passage.

ADOPTED this 26th day of November, 2013.



Teresa Smith, Mayor, City of Orange

ATTEST:

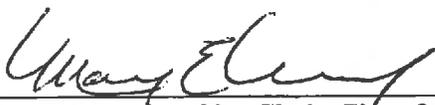


Mary E. Murphy, City Clerk, City of Orange

STATE OF CALIFORNIA)
COUNTY OF ORANGE)
CITY OF ORANGE)

I, Mary E. Murphy, City Clerk of the City of Orange, California, do hereby certify that the foregoing Ordinance was introduced at the regular meeting of the City Council held on the 12th day of November, 2013, and thereafter at the regular meeting of said City Council duly held on the 26th day of November, 2013, was duly passed and adopted by the following vote, to wit:

AYES: COUNCILMEMBERS: Alvarez, Whitaker, Smith, Murphy
NOES: COUNCILMEMBERS: None
ABSENT: COUNCILMEMBERS: None
ABSTAIN: COUNCILMEMBERS: Bilodeau



Mary E. Murphy, City Clerk, City of Orange

2013
California Fire Code

City of Orange
Expressly Marked
Amendment Package

Section 101.1 Amended – Title.

101.1 Title. These regulations shall be known as the Orange Fire Code ~~of [NAME OF JURISDICTION]~~, hereinafter referred to as “this code.”

Section 103.2 Amended – Appointment.

103.2 Appointment. The fire code official shall be appointed by the fire chief and may be removed at any time. ~~authority and jurisdiction; and the fire code official shall not be removed from office except for cause and after a full opportunity to be heard on specific and relevant charges by and before the appointing authority.~~

Section 105.1.1 Amended – Permits required.

105.1.1 Permits required. ~~Any property owner or authorized agent who intends~~ When a permit is required by this code, a current permit conforming to the requirements of Section 105 shall be required to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done, ~~shall first make application to the fire code official and obtain the required permit.~~

Section 105.4.2 Amended – Information on construction documents.

105.4.2 Information on construction documents. Construction documents shall be drawn to scale upon suitable material. ~~Electronic media documents are allowed to be submitted when approved by the fire code official.~~ Plans shall be submitted in both paper and electronic formats as detailed in the City of Orange Fire Department Plan Submittal Guidelines. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail but it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations as determined by the fire code official.

Section 105.6.29 Amended – Miscellaneous combustible storage.

105.6.29. Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, green waste, composting, yard waste, or similar combustible material.

Section 105.6.48 Added – Day-care.

105.6.48 Day-care. An operational permit is required to operate a day-care center.

105.6.49 Added – Day-care, large family.

105.6.49 Day-care. An operational permit is required to operate a large family day-care home.

105.6.50 Added – High-rise buildings.

105.6.48 Day-care. An operational permit is required to operate a high-rise building.

Section 109.2.1 Added – Fire and life safety hazards.

109.2.1 Fire and life safety hazards. Persons operating, maintaining or controlling any occupancy, premises or vehicle subject to this code shall neither create, nor allow to exist, any condition deemed a fire or life safety hazard by the fire code official.

Section 109.4 Amended – Violation penalties.

109.4 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~~ will 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 subject to prosecution in accordance with Chapter 1.08 of the Orange Municipal Code, guilty of [SPECIFY OFFENSE] punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or by both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 202 Amended – Added: “Flow-line,” “Hazardous Fire Area,” “Sky Lantern” and Revised: “High-Rise Building.”

FLOW-LINE. The lowest continuous elevation on a curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

HAZARDOUS FIRE AREA. Includes all areas identified within Section 4906.2 and other areas as determined by the Fire Code Official as presenting a fire hazard due to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

HIGH-RISE BUILDING. In other than Group I-2 occupancies, “high-rise buildings” as used in this Code:

EXISTING HIGH-RISE STRUCTURE. A high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.

HIGH-RISE STRUCTURE. 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 Section 403~~), except buildings used as hospitals as defined in Health and Safety Code Section 1250.

NEW HIGH-RISE BUILDING. A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this Section, construction shall be

deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this Section have been met, the construction of such buildings shall commence on or before January 1, 1976.

NEW HIGH-RISE STRUCTURE. means a high-rise structure, the construction of which commenced on or after July 1, 1974.

SKY LANTERN. An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.

Section 304.1.2 Amended – Vegetation.

Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with Chapter 49 and Orange City Fire Department vegetation management guidelines.

Section 304.4 Added – Disposal of rubbish.

304.4 Disposal of rubbish. Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.

Section 305.5 Added – Chimney spark arresters.

305.5 Chimney spark arresters. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. Chimneys serving outdoor appliances or fireplaces shall be equipped with a spark arrester. The spark arrester shall meet the requirements of Section 2113.9.2 of the California Building Code.

Section 305.6 Added – Outdoor fires.

305.6 Outdoor fires. Outdoor fires shall be in accordance with Sections 305, 307, and 308 and other applicable Sections of this code.

Section 307.1.2 Added – Fuel modification areas.

307.1.2 Fuel modification areas. Outdoor fires using wood or other solid fuel shall not be built, ignited or maintained in a fuel modification area.

Section 307.2.2 Added – Hazardous conditions.

307.2.2 Hazardous conditions. Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has

been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

Section 307.2.3 Added – Where prohibited.

307.2.3 Where prohibited. Outdoor fires shall not be built, ignited or maintained in fuel modification areas, Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) or Special Fire Protection Areas (SFPA) or other locations where conditions could cause the spread of fire to the WRA, SFPA or FHSZ in the opinion of the fire code official, except by permit from the fire code official.

Exception: A permit is not required for the following:

1. Fires in approved outdoor or portable fireplaces, fire pits, fire rings and similar devices at Group R occupancies that are installed and used in accordance with this code.
2. Outdoor fires at inhabited premises or official organized campsites or parks when located in a permanent or portable barbeque or grill, incinerator, or outdoor fireplace located at least 30 feet from combustible vegetation.
3. Other installations or uses approved by the fire code official.

Section 307.5.1 Added – Supervision.

307.5.1 Supervision. Where a permit is issued or when allowed under the exceptions to Section 305.6.1, such fires shall be supervised by a person 18 years of age or older.

Section 307 Amended – Open burning, recreational fires and portable outdoor fireplaces.

SECTION 307 OPEN BURNING, RECREATIONAL FIRES, FIRE PITS, FIRE RINGS, AND PORTABLE-OUTDOOR FIREPLACES

Section 307.6 Added – Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies.

307.6 Outdoor fireplaces, fire pits, fire rings, or similar devices used at Group R occupancies. Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R shall comply with this Section.

Exception: Barbeques, grills, and other portable devices intended for cooking

Section 307.6.1 Added – Gas-fueled devices.

307.6.1 Gas-fueled devices. Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the building code official and the device is designed to only burn a gas flame and not wood or other solid fuel. At properties containing Group R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At

properties of other than Group R occupancies, the minimum distance shall be ten feet. Where a permanent hood and vent approved by the building code official is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester in accordance with Section 305.5.

Section 307.6.2 Added – Devices using wood or fuels other than natural gas or liquefied-petroleum gas.

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code and Section 305.5. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be managed per Section 307.5.

Section 307.6.2.1 Added – Where prohibited.

307.6.2.1 Where prohibited. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) and Special Fire Protection Areas (SFPA) or in locations where conditions could cause the spread of fire to the WRA or FHSZ, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

Section 319 Added – Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors.

319 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 has, or is adjacent to, or within 1,000 feet (304.8 m) 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 320 Added – Fuel modification requirements for new construction.

320 Fuel modification requirements for new construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of Orange City Fire Department Vegetation Management Guidelines currently in use at the time of plan submittal.

Section 321 Added – Clearance of brush or vegetative growth from roadways.

321 Clearance of brush or vegetative 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. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces.

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 in the opinion of the fire code official.

Section 322 Added – Unusual circumstances.

322 Unusual circumstances. The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that 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.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

Section 323 Added – Use of equipment.

323 Use of equipment. Except as otherwise provided in this Section, no person shall use, operate, or cause to be operated in, upon or adjoining adjacent to any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a properly functioning spark arrester as defined in Section 323.1 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exceptions:

1. 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.
2. 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 good mechanical condition

Section 323.1 Added – Spark Arresters.

323.1 Spark arresters. Spark arresters shall comply with the following:

1. 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.
2. Spark arresters affixed to the exhaust system of engines or vehicles subject to Section 322 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. Chimney spark arresters shall be required in accordance with Section 305.5

Section 324 Added – Restricted entry.

324 Restricted entry. The fire code official shall determine and publicly announce when hazardous fire areas are closed to entry and when such areas are again 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.

Exceptions:

1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands may enter when an area is closed if given permission by the fire code official.
2. Entry into closed areas is allowed, 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 325 Added – Trespassing on posted property.

325 Trespassing on posted property. 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 provided below:

1. Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.
2. Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception:

Owners and tenants of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their agents acting in the course of duty shall be allowed in such closed areas where authorized by the fire code official.

Section 326 Added – Sky lanterns and similar devices.

326 Sky Lanterns and similar devices. Possession or use of a sky lantern or similar device employing a candle, flame or other potential ignition source shall be prohibited.

Section 503.2.1 Amended – Dimensions.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flow-line to flow-line on streets with rolled curbs.

Section 503.2.1.1 Added – Hazardous fire areas.

503.2.1.1 Hazardous fire areas. Fire apparatus roads in hazardous fire areas shall have an unobstructed width of not less than 28 feet (8530 mm). The width shall be maintained to an approved point outside of the Hazardous Fire Area.

Exception: When the road serves no more than three dwelling units and the road does not exceed 150 feet in length, the road width may be 24 feet (7300 mm). This length may be increased to 400 feet where serving no more than three dwelling units and all structures accessed from the roadway are protected by automatic fire sprinklers.

Section 503.2.2 Added – Divided fire access roads.

503.2.2 Divided fire access roads. Divided fire access roads shall be subject to review and approval by the fire code official. Each lane shall be a minimum of 14 feet.

Section 503.6 Amended – Security gates.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. Vehicle access gates or barriers shall be in accordance with the City of Orange Fire Master Plan Guidelines. All electrically operated vehicle access gates shall be equipped with an automatic opening device in addition to a key opening switch.

Section 505.1 Added – Address identification.

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) for R-3 occupancies. For all other occupancies, the numbers shall be a minimum of 6 inches high with a minimum stroke width of 1 inch, and shall be approved by the fire code official. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

Section 505.1.1 Added – Building complexes.

505.1.1 Building complexes. Approved diagrammatic representations shall be positioned at all entrances to building complexes. The diagrammatic representations shall show the overall site, location of the viewer, buildings and units and the addresses or unit designations within the complex, and shall be internally or externally eliminated as approved during the hours of darkness.

Section 510.1 – Emergency responder radio coverage.

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This Section shall not require improvement of the existing public safety communication systems. The Emergency responder radio coverage system shall be installed in accordance with the City of Orange Emergency Responder Digital Radio Guideline.

Exceptions:

- ~~1. Where approved by the building official and the fire code official, a wired communication system in accordance with Section 907.2.12.2 shall be permitted to be installed or maintained in lieu of an approved radio coverage system.~~
- ~~2. Where it is determined by the fire code official that the radio coverage system is not needed.~~
- ~~3. In facilities where emergency responder radio coverage is required and such systems, components or equipment could have a negative impact on normal operations of the facility, the fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system.~~

Exceptions:

1. Where it is determined by the fire code official that the radio coverage system is not needed.
2. The fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system in facilities where emergency responder radio coverage is

required and such systems, components or equipment could have a negative impact on normal operations of the facility.

Section 510.2 Deleted – Emergency responder radio coverage in existing buildings.

Section 510.3 Deleted – Permit required.

Section 510.4 Deleted – Technical requirements.

Section 510.5 Deleted – Installation requirements.

Section 510.6 Deleted – Maintenance

Section 606.10.2 Amended – Manual Operation

606.10.2 Manual Operation. An automatic emergency stop feature shall be provided in accordance with Sections 606.10.2.1 and 606.10.2.2, and 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 or equivalent and marked as “Emergency Controls.”

Section 608.1 Amended – Scope.

608.1 Scope. 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 and lithium metal polymer, used for facility standby power, emergency power or uninterruptible power supplies shall comply with this Section and Table 608.1. Indoor charging systems for electric carts/cars with more than 50 gallons (189 L) aggregate quantity shall comply with Section 608.10.

Section 608.10 Added – Indoor charging of electric carts/cars.

608.10 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all battery electrolyte exceeds 50 gallons shall comply with following:

1. Spill control and neutralization shall be provided and comply with Section 608.5.
2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7.1
4. Smoke detection shall be provided and comply with Section 907.2

Section 901.6.1.1 Added – Maintenance of smoke alarms in apartment buildings

901.6.1.1 Maintenance of smoke alarms in apartment buildings. Installation and maintenance of smoke alarms in apartment buildings shall conform to the following:

1. Apartment building owners shall supply, install, test and maintain all required smoke alarms before renting to a new tenant. The amount and types of smoke alarms shall conform to the California Building Code in effect at the time of building construction and requirements for existing buildings.
2. The tenant shall be responsible for testing of all required smoke alarms in accordance with manufacturer instructions in his or her respective dwelling unit. Within 60 days of the first of each

year, the owner shall request each tenant for the status of all smoke alarms.

3. Within 10 days of receiving the smoke alarm status request, and in no event later than March 10 of each year, each tenant shall notify the owner, in writing, on a form provided by the owner, of the condition of each required smoke alarm installed in the dwelling unit.
4. Upon receipt of a written notice from a tenant that a smoke alarm is in need of maintenance or replacement, the owner shall perform such maintenance as is necessary within 10 days of receipt of such notification.
5. The hotel or apartment owner shall maintain records of compliance for a period of three years from March 10 of each year.

Section 903.2 Amended – Where required.

903.2 Where required. Approved automatic sprinkler systems in new-buildings and structures shall be provided when one of the following conditions exists ~~in the locations described in Sections 903.2.1 through 903.2.12:~~

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, all buildings shall be protected throughout by an automatic fire sprinkler system when the total building area exceeds 5,000 square feet in Types I, II, III and IV construction, and 3000 square feet in Type V construction as defined in the California Building Code, regardless of fire areas or allowable area.

Exceptions:

1. Buildings with areas reduced to less than that requiring fire sprinklers using 3-hour minimum rated fire walls constructed in accordance with the California Building Code Chapter 7.
2. Open parking garages, fences, retaining walls, towers classified as Group U occupancies, and tanks.
2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an existing building shall be protected throughout by an automatic fire sprinkler system when the building meets the conditions for required automatic fire sprinkler protection throughout, and one or more of the following conditions occurs:
 - a. An increase in area is made to the building.

Exception: Buildings housing Group R-3 fire occupancies shall be protected throughout by an automatic fire sprinkler system when the area of the building is increased, resulting in an area exceeding 5,000 square feet.

- b. A change is made to the occupancy classification and use of the building which increases the level of hazard as determined by the fire code official, or
- c. A significant modification is made to the building, or a modification impacts the structural system of the building as determined by the fire code official.

Section 903.3.5.3 Added – Hydraulically calculated systems.

903.3.5.3 Hydraulically calculated systems. The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity. The capacity shall be calculated using a combination of the following criteria:

1. The lower of the following:
 - a. the lowest water supply capacity determined by the water purveyor serving the closest fire hydrant serving the address in the last consecutive three years.
 - b. the lowest water supply flow test conducted in accordance with National Fire Protection Association (NFPA) within the last 12 calendar months.
2. Subtraction of the head pressure of the tallest tank supplying water to the fire hydrant flowing water, assuming the tank is full at the time of the test and empty at the time of fire sprinkler activation.

Section 903.4 Amended – Sprinkler system supervision and alarms.

903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. 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.
4. 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.~~
5. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
6. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Section 903.4.3 Added – Locking of control valves.

903.4.3 Locking of control valves. All valves required to be electrically supervised by this section shall also be sealed or locked in the position of normal operation.

15.32.420 Section 905.4 Amended – Location of Class I standpipe hose connections is hereby amended by adding item 7 as follows:

7. The centerline of the 2.5 inch (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) and no more than 24 inches above the finished floor.

Section 907.2.13 Amended – High-rise buildings.

907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet above the lowest level of fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet above the lowest level of fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the California Building Code.
2. Open parking garages in accordance with Section 406.5 of the California Building Code.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the California Building Code.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the California Building Code.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system

Section 907.3.1 Amended – Duct smoke detectors.

907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. 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 907.5.2.2 Amended – Emergency voice/alarm communication systems.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow 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 in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet above the lowest level of fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At 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 Chapter 2.
5. Dwelling units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-2 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

Section 907.6.3.2 Amended – High-rise buildings.

907.6.3.2 High-rise buildings. High-rise buildings and Group I-2 occupancies having occupied floors located more than ~~75~~ 55 feet 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 detection devices or suppression systems.

Section 907.6.5.4 Added – Monitoring of fire-extinguishing systems.

907.6.5.4 Monitoring of fire-extinguishing systems. Where a building fire alarm or monitoring system is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm or monitoring system in accordance with NFPA 72.

Section 2808.2 Amended – Storage site.

2808.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from the fire code official obtained before transferring wood-products to the site.

Section 2808.3 Amended – Size of piles.

2808.3 Size of piles. Piles shall not exceed 25-15 feet (4572 mm) in height, 150-50 feet (15 240 mm) in width and 250-100 feet (30 480 mm) in length.

Section 2808.7 Amended – Pile fire protection.

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

Section 2808.9 Amended – Material-handling equipment.

2808.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

Section 2808.11 Added – Temperature control.

2808.11 Temperature control. The temperature shall be monitored and maintained as specified in Sections 2808.11.1 and 2808.11.2.

15.32.530 Section 2808.11.1 Added – Pile temperature control.

2808.11.1 Pile temperature control. Piles shall be rotated when the internal temperature readings are in excess of 165 degrees Fahrenheit.

Section 2808.11.2 Added – New material temperature control.

2808.11.2 New material temperature control. New loads delivered to the facility shall be inspected and tested at the facility entry prior to taking delivery. Material with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the site. New loads shall be monitored to verify that the temperature remains stable.

Section 4906.3 Amended – Hazardous vegetation and fuel management requirements.

4906.3 Requirements. Hazardous vegetation and fuels around all applicable buildings and structures shall be maintained in accordance with the following laws and regulations:

1. Public Resources Code, Section 4291.
2. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299 (see guidance for implementation "General Guideline to Create Defensible Space").
3. California Government Code, Section 51182.
4. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.
5. Orange City Fire Department Vegetation Management Guidelines.

Section 4908 Added – Fuel modification requirements for new construction.

4908 Fuel modification requirements for new construction. All new buildings to be built or installed in hazardous fire areas 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.
 - a. The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange City Fire Department Vegetation Management Guidelines.
4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from 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 5001.5.1 Amended – Hazardous Materials Management Plan (HMMP)

5001.5.1 Hazardous Materials Management Plan (HMMP). Where required by the fire code official, and application for a permit shall include an HMMP. The application shall be submitted by March 1 of each year or as required by the fire code official. The HMMP shall include a facility site plan designating the following:

1. Access to each storage and use area.
2. Location of emergency equipment.
3. Location where liaison will meet emergency responders.
4. Facility evacuation meeting point locations.
5. The general purpose of other areas within the building.
6. Location of all above-ground and underground tanks and their appurtenances including, but not limited to, sumps, vaults, below-grade treatment systems and piping.
7. The hazard classes in each area.
8. Locations of all control areas and Group H occupancies.

9. Emergency exits.

[For SFM] The HMMP shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

Section 5001.5.2 Amended – Hazardous Materials Inventory Statement (HMIS).

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the fire code official, an application for a permit shall include an HMIS, ~~such as (SARA), Superfund Amendments and Reauthorization Act of 1986 Title III, Tier II Report or other approved statement.~~ The HMIS shall be submitted by March 1 of each year or as required by the fire code official, and shall include the following information:

1. Product Name
2. Component
3. Chemical Abstract Service (CAS) number
4. Location where stored or used.
5. Container size
6. Hazard classification
7. Amount in storage
8. Amount in use-closed systems
9. Amount in use-open systems.

[For SFM] The HMIS shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4.

Table 5003.1.1(1) Amended – Maximum allowable quantity per control area of hazardous materials posing a physical hazard is hereby amended by deleting Footnote K without replacement 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 the storage containers and the manner of storage are approved.~~

Section 5003.1.1.1 Added – Extremely hazardous substances.

5003.1.1.1 Extremely hazardous substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residentially zoned or residentially developed property.

Section 5004.12 Amended – Noncombustible floor.

5004.12 Noncombustible floor: Except for surfacing, floors of storage areas shall be of noncombustible, liquid tight construction.

Section 5601.2 Added – Retail fireworks.

5601.2 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.

Exception: 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

Section 5601.3 Added – Seizure of fireworks.

5601.3 Seizure of Fireworks. The fire code official shall have the authority to seize, take, remove all 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.

Section 5602 Added – Explosives and blasting–prohibited.

5602 Explosives and blasting prohibited. The manufacture, sale, possession storage, handling and use of explosives as defined in the California Code of Regulations, Title 19, Chapter 10, Section 1553 is prohibited.

Exceptions:

1. Explosives used as permitted by the Orange Municipal Code Chapter 15.34 Blasting Permits.
2. Handled loading of small arms ammunition performed in accordance with Orange Municipal Code Chapter 15.32 for personal use.

Section 5608.1 Amended – General.

5608.1 General. Outdoor fireworks displays, use of pyrotechnics before a proximate audience and pyrotechnic special effects in theatrical and group entertainment productions shall comply with California Code of Regulations, Title 19, Division 1, Chapter 6 Fireworks, the Orange City Fire Department Guidelines for Public Fireworks Displays, and with the conditions of the permit as approved by the fire code official.

Section 5608.2 Added – Firing.

5608.2 Firing. All fireworks displays shall be electrically fired.

Section 5704.2.9.6.1 Amended – Location where above-ground tanks are prohibited.

5704.2.9.6.1 Location where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited (see Section 3 of the Sample

~~Legislation for Adoption of the California Fire Code on page xxvi).~~ Above-ground tanks shall be prohibited except for the following locations:

1. M-1 or M-2 zones as established by the Planning Division of the City of Orange Community Department, and
2. As approved by the fire code official.

Section 5704.2.11 Amended – Underground tanks

5704.2.11 Underground tanks. Underground storage of flammable and combustible liquids in tanks shall comply with Section 5704.2 and Sections 5704.2.11.1 through 5704.2.11.5.2. this Section, the applicable Sections of Chapter 50, and California Health and Safety Code (H&SC) Ch. 6.7.

Section 6004.2.2.7 Amended – Treatment systems.

6004.2.2.7 Treatment Systems. The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, and local exhaust systems required in Sections 6004.2.2.4 and 6004.2.2.5 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Chapter 5 of the California Mechanical Code.

Exceptions:

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:~~

~~1.1. Valve outlets are equipped with gas-tight outlet plugs or caps.~~

~~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 6004.2.2.3.~~

2. 1. Toxic gases – storage/use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 1,700 pounds (772 kg) water capacity when the following are provided:

2.1.1 A listed or approved gas detection system with a sensing interval not exceeding 5 minutes.

~~2.2.1.2. For storage, valve outlets are equipped with gas-tight outlet plugs or caps.~~

~~2.2.1.3 For use, A~~ a listed ~~or and~~ approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection system shall comply with Section 6004.2.2.10.

Ch. 80, Standard 13-13 Section 6.8.3 Amended – Fire department connections

6.8.3 Fire department connections (FDC) 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 40 feet from a fire hydrant, and at least 40 feet from the building it supplies unless otherwise approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water purveyor, it may be installed on the backflow assembly. Fire department inlet connections shall be painted "OSHA safety red." Four 2 ½" inlets shall be provided when the automatic fire sprinkler system design (including system-supplied fire hose stream demand) requires 500 gpm or greater.

Ch. 80, Standard 13-13, Section 8.3.3.1 Amended – Spec buildings.

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 fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

- (1) Quick-response type as defined in 3.6.4.7
- (2) Residential sprinklers in accordance with the requirements of 8.4.5
- (3) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
- (4) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

Ch. 80, Standard 13-13, Section 11.1.1.2 Added – Spec building sprinkler density

11.1.1.2 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 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. 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.

Ch. 80, Standard 13R-13, Section 6.16.1 Amended – Local water flow alarm

6.16.1 A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided.

Ch. 80, Standard 13D-13, Section 4.1.3 Added – Spare sprinkler heads

4.1.3 Stock of Spare Sprinklers

Ch. 80, Standard 13D-13, Section 4.1.3.1 Added – Number of spare heads

4.1.3.1. 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.

Ch. 80, Standard 13D-13, Section 4.1.3.2 Added – Temperature ratings.

4.1.3.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

Ch. 80, Standard 13D-13, Section 4.1.3.3 Added – Spare head cabinet.

4.1.3.3 The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100 °F (38°C).

Ch. 80, Standard 13D-13, Section 4.1.3.4 Added – Spare sprinkler wrench.

4.1.3.4 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.

Ch. 80, Standard 13D-13, Section 7.1.2 Amended – Separate control valve.

7.1.2 The 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.~~

Ch. 80, Standard 14-13, Section 7.3.1.1 Replaced – Standpipe inlet heights.

7.3.1.1 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.

Ch. 80, Standard 24-13, Section 6.2.1.1 Added – Indicating valve color.

6.2.1.1 The closest upstream indicating valve to the riser shall be painted “OSHA safety red.”

Ch. 80, Standard 24-13, Section 6.2.11 (5) Amended – Control valves.

~~6.2.11 (5) A nonindicating valve, such as an underground gate valve with an approved roadway box, complete with T wrench, located not less than 40 ft (12m) from the building.~~
~~(a) For buildings less than 40 feet (12m) in height, a non-indicating valve, such as an underground gate valve with an approved roadway box, complete with T wrench, shall be permitted to be closer~~

than 40 ft (12 m), but at least as far from the building as the height of the wall facing the backflow preventer.

(65) Control Valves installed in a fire-rated room accessible from the exterior.

(76) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

Ch. 80, Standard 24-13, Section 6.3.3 Added – Post indicator valve color

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted "OSHA safety red."

Ch. 80, Standard 24-13, Section 10.1.6.3 Added – Ferrous pipe.

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-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this Section.

Exception: 304 or 316 Stainless Steel pipe and fittings

Ch. 80, Standard 24-13, Section 10.3.6.2 Amended – Bolted joint accessories.

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

Exception: Bolted joint accessories made from 304 or 316 stainless steel.

Ch. 80, Standard 24-13, Section 10.3.6.3 Added – Pipe-joint assembly

10.3.5.3 All bolts used in pipe-joint assembly shall be 316 stainless steel.

Ch. 80, Standard 24-13, Section 10.6.3.1 Replaced – Under-building runs.

10.6.3.1 The requirements of 10.6.2(s) and 10.6.2(3) shall not apply where the fire service mains enter under the building no more than 10 feet (3 m) as measured from the outside edge of the building to the center of the vertical pipe. Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.6.2.

Ch. 80, Standard 24-13, Section 10.6.4 Amended – Pipe under footings.

10.6.4 Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints.

Section B105.2 Amended – Buildings other than one- and two-family dwellings.

B105.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be specified in Table B105.1.

Exceptions:

1. A reduction in required fire flow of up to 75%, as approved, 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 for the prescribed duration as specified in table B105.1.

2. *[SFM] Group B, S-2 and U occupancies having a floor area not exceeding 1000 square feet, primarily constructed of noncombustible exterior walls with wood or steel roof framing, having a class A roof assembly, with uses limited to the following or similar uses:*
 - 2.1 *California State Parks buildings of an accessory nature (restrooms).*
 - 2.2 *Safety roadside rest areas (SRRA) public restrooms.*
 - 2.3 *Truck inspection facilities (TIF) CHP office space and vehicle inspection bays.*
 - 2.4 *Sand/salt storage buildings, storage of sand and salt.*

Appendix C, Section C101.1 Amended – Scope

C101.1 Scope. Fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed. Fire hydrants located in the public way which are connected to the City of Orange Water Department water system shall comply with City of Orange Water Department distribution requirements when approved by the fire code official.