

## ORDINANCE NO. 292

### AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST CALIFORNIA, AMENDING TITLE 8, BY REPEALING CHAPTER 8.24 OF THE LAKE FOREST MUNICIPAL CODE AND BY ADDING A NEW CHAPTER 8.24, ADOPTING BY REFERENCE THE 2016 CALIFORNIA FIRE CODE, WITH APPENDICES AND AMENDMENTS THERETO

**WHEREAS**, pursuant to California Government Code Section 50022.1 *et seq.* the City of Lake Forest ("City") may adopt by reference the 2016 California Fire Code, based on the 2015 International Fire Code, with errata, published by the International Code Council (ICC), as adopted by the State of California pursuant to Title 24, Part 9 of the California Code of Regulations; and

**WHEREAS**, California Health & Safety Code sections 17958.7 and 18941.5 authorize cities to adopt the codes contained in Title 24 of the California Code of Regulations with changes and modifications determined to be reasonably necessary because of local climatic, topographic, or geologic conditions; and

**WHEREAS**, the City desires to adopt the 2016 California Fire Code, based on the 2015 International Fire Code, with errata, published by International Code Council (ICC), as adopted by Title 24, Part 9 of the California Code of Regulations ("Fire Code") with necessary amendments to assure the Code is tailored to the particular fire protection needs of the City as required by local climatic, topographic, and geologic conditions and to assure that a maximum level of fire protection is provided to residents, businesses, and other occupants; and

**WHEREAS**, the City held public hearings on November 15, 2016 and December 6, 2016, at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the Fire Code as amended herein; and

**WHEREAS**, the City published notice of the aforementioned public hearing pursuant to California Government Code Section 6066 on October 28, 2016 and November 4, 2016; and

**WHEREAS**, any and all other legal prerequisites relating to the adoption of this Ordinance have occurred.

THE CITY COUNCIL OF THE CITY OF LAKE FOREST, CALIFORNIA,  
DOES ORDAIN AS FOLLOWS:

**SECTION 1.** Findings. The City Council hereby finds that the proposed amendments to the 2016 California Fire Code are reasonably necessary because of local climatic, geologic, or topographic conditions, and adopts the findings provided below to support the modifications to the 2016 California Fire Code.

I. Climatic Conditions

- A. The jurisdiction of Lake Forest 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 County. 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 firefighting 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 County fire Authority's ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within the County.
- 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.

## II. Topographical Conditions

- A. Natural slopes of 15 percent or greater generally occur throughout the foothills of Orange County. The elevation change caused by the hills creates the geological foundation on which communities within Orange County are 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.
- B. Traffic and circulation congestion is an artificially created, obstructive topographical condition which is common throughout Orange County.
- C. 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.

## III. Geological Conditions

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 northeast and southwest boundaries of Orange County. 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 Irvine 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 the County also make amendments reasonably necessary. Located through the County are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanies with occasional heavy rainfall, causes roadway flooding and landslides and at times may make an emergency access route impassable. There are areas in Orange County that naturally have extended emergency response times that exceed the 5 minute goal.
- C. Soils throughout the County 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 County contain active or former oil production fields. These areas contain a variety of naturally occurring gasses, 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 to implement appropriate mitigation.
- E. 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 structure. Additional fire protection is also justified to match the current resources of firefighting equipment and personnel within the Orange County Fire Authority.

#### IV. Administrative

This amendment is necessary for administrative clarification, and does not modify a building standard pursuant to California Health & Safety Code Sections 17958, 17985.7 and/or 18941.5. This amendment establishes administrative standards for the effective enforcement of the building standards in the City of Lake Forest.

The findings above are applicable to amendments to the 2016 California Fire Code as follows and the International Fire Code, 2015 Edition as follows:

<b>CODE SECTION</b>	<b>CALIFORNIA FIRE CODE LOCAL AMENDMENT</b>	<b>FINDINGS</b>
109.4	Violation penalties	Admin
109.4.2	Infraction	Admin
109.4.3	Misdemeanor	Admin
202	General definitions (Flow-Line, Hazardous Fire Area, EHLF)	Admin
304.1.2	Vegetation	I & II
305.6	Hazardous conditions	I & II
305.7	Disposal of rubbish	I & II
307.6	Outdoor Fireplaces, Fire Pits, Fire Rings, and Outdoor Fireplaces	I & II
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
309.2.1	Indoor charging of electric carts/cars	III-A
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	Sky Lanterns or similar devices	I & II
407.5	Hazardous materials inventory statement	Admin
501.1	Scope (fire service features)	Admin
510.1	Emergency responder radio coverage in new buildings	Admin
510.2	Emergency responder radio coverage in existing buildings	Admin
510.4.2.2	Technical criteria	Admin
510.5.1	Approval prior to installation	Admins
510.5.2	Minimum qualification of personnel	Admin
510.5.3	Acceptance test procedure	Admin
510.6.1	Testing and proof of compliance	Admin
608.1	Scope (Battery Systems)	Admin
903.2	Where required (Sprinklers)	II & III-B
903.2.8	Group R (Sprinklers)	II-B & III-B
903.3.5.3	Hydraulically calculated systems	I & II
2801.2	Permit (Miscellaneous combustible storage)	Admin
2808.2	Storage site	Admin
2808.3	Size of piles	I
2808.4	Pile separation	I
2808.7	Pile fire protection	I
2808.9	Material-handling equipment	I
2808.11	Temperature control	I
2808.11.1	Pile temperature control	I
2808.11.2	New material temperature control	I
2808.12	Water availability	I
2808.13	Tipping area	I

2808.14	Emergency contact	Admin
4906.3	Vegetation	I
4908	Fuel modification requirements for new construction	I
5001.5.2	Hazardous materials inventory statement (HMIS)	Admin
Table 5003.1.1(1)	Maximum allowable quantity per control area	III & III
5003.1.1.1	Extremely hazardous substances	III
Chapter 80	Reference Standards	Admin, II & III

*NOTE: Those indicated as N/A or "Admin" represent wording changes which do not constitute a new local amendment for which a finding must be made.*

**SECTION 2.** The following sections within Chapter 8.24 of Title 8 of the Lake Forest Municipal Code are hereby amended as follows:

Sec. 8.24.010. Fire Code Adopted.

Except as hereinafter provided, the 2016 California Fire Code, based on the International Fire Code, 2015 Edition, with errata, published by the International Code Council (ICC), with appendices and amendments thereto, including Chapter 1 and Appendices B, BB, C, CC, and H are hereby adopted by the City of Lake Forest for the purpose of prescribing regulations governing conditions hazardous to the life and property from fire or explosion, save and except such portions as are hereinafter added, deleted, modified or amended. One copy of all the above is now on file in the office of the Clerk for public inspection and is adopted with the same force and effect as through set out herein in full.

Sec. 8.24.030. Chapter 1 – Administration, is hereby adopted in its entirety with the following amendments:

A. Section 109.4 Violation penalties is hereby revised as follows:

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 shall fail to comply with any issued orders or notices or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall result in penalties assessed as prescribed in the OCFA Prevention Field Services adopted fee schedule. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

B. Section 109.4.2 Infraction and misdemeanor is hereby added as follows:

109.4.2 Infraction and misdemeanor. Persons operating or maintaining any occupancy, premises or vehicle subject to this code that shall permit any fire or life safety hazard to exist on premises under their control shall be guilty of an infraction. Persons who fail to take immediate action to abate a fire or life safety hazard when ordered or notified to do so by the chief or a duly authorized representative are guilty of a misdemeanor.

C. Section 202 General Definitions, is hereby revised by adding "OCFA", "Sky Lantern," "Spark Arrestor," as follows:

202 General Definitions.

OCFA: Orange County Fire Authority, fire authority having jurisdiction.

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.

SPARK ARRESTOR. A listed device construed of noncombustible material specifically for the purpose of meeting one of the following conditions:

1. Removing and retaining carbon and other flammable particles/debris from the exhaust flow of an internal combustion engine in accordance with the California Vehicle Code Section 38366.
2. Fireplaces that burn solid fuel in accordance with California Building Code Chapter 28.

D. Section 304.1.2 Vegetation, is hereby revised as follows:

304.1.2 Vegetation. Type, amount, or arrangement of weeds, grass, vines or other growth that is capable of being ignited and endangering property needing to comply with OCFA Guidelines, shall be cut, thinned, and removed by the owner or occupant of the premises in accordance with OCFA Guideline C-05 "Vegetation Management Guideline—Technical Design for New Construction, Fuel Modification Plans, and Maintenance Program. Vegetation clearance requirement in urban-wildland interface areas shall be in accordance with Chapter 49.

E. Section 305.6 Hazardous Conditions, is hereby added as follows:



305.6 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.

F. Section 305.7 Disposal of Rubbish, is hereby added as follows:

305.7 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.

G. Section 307 Open Burning, Recreational Fires And Portable Outdoor Fireplaces, is hereby amended by adding a new section 306.7 as follows:

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.

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 Department and the device is designed to only burn a gas flame and not wood or other solid fuel. At 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 other R occupancies, the minimum distance shall be ten feet. Where a permanent Building Department approved hood and vent 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.

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.

307.6.2.1 Where Prohibited. The burning of wood and other solid fuels shall not be conducted within a fuel modification zone. 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.

- H. Section 309.2.1 Indoor Charging of Electric Carts/Cars, is hereby added as follows:

309.2.1 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 608.9.

- I. Section 320 Fuel Modification Requirements for New Construction is hereby added as follows:

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 OCFA Vegetation Management Guidelines currently in use at the time of plan submittal.

- J. Section 321 Clearance of Brush or Vegetation Growth From Roadways, is hereby added as follows:

321 Clearance of brush or Vegetation Growth From Roadways. The fire code official is authorized to cause areas within 10 feet (3048 mm) on each side of portions of highways and private streets which are improved, designed or ordinarily used for vehicular traffic, to be cleared of flammable vegetation and other combustible growth. 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.

K. Section 322 Unusual Circumstances, is hereby added as follows:

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.

L. Section 323 Use of Equipment, is hereby added as follows:

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 any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a spark arrester as defined in Section 323.1 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exceptions:

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.

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

M. 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 323 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.

N. Section 324 Sky Lanterns or Similar Devices, is hereby added as follows:

324 Sky Lanterns or Similar Devices. The ignition and/or launching of a Sky Lantern or similar device is prohibited.

Exception: Upon approval of the fire code official, sky lanterns may be used as necessary for religious or cultural ceremonies providing that adequate safeguards have been taken as approved by the fire code official. Sky Lanterns must be tethered in a safe manner to prevent them from leaving the area and must be constantly attended until extinguished.

O. Chapter 4: Emergency Planning and Preparedness. Only the Sections listed below are hereby adopted:

401

401.3.4

401.9

402

403

404.6 – 404.7.6

407

408.3.1 – 408.3.2

408.12 – 408.12.3

- P. SECTION 407.5 Hazardous Materials Inventory Statement, is hereby revised to read as follows:

407.5 Hazardous Materials Inventory Statement. Where required by the fire code official, each application for a permit shall include OCFA's Chemical Classification Packet in accordance with Section 5001.5.2.

- Q. SECTION 501.1 Scope, is hereby revised to read as follows:

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter and, where required by the fire code official, with OCFA Guideline B-09, "Fire Master Plan for Commercial & Residential Development." Fire service features for buildings, structures and premises located in State Responsibility Areas shall also comply with OCFA Guideline B-09a, "Fire Safe Development in State Responsibility Areas.

- R. Section 510.1 Emergency Responder Radio Coverage In New Buildings, is hereby revised as follows:

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 comply with one of the following:

1. An emergency radio system installed in accordance with the local authority having jurisdiction's ordinance.
2. An emergency radio coverage system installed in accordance with Orange County Fire Authority's 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. 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.

This section shall not apply to the following:

1. Existing buildings or structures, unless required by the Building Official and OCFA for buildings and structures undergoing extensive remodel and/or expansion.
2. Elevators.
3. Structures that are three stories or less without subterranean storage or parking and that do not exceed 50,000 square feet on any single story.
4. Wood-constructed residential structures four stories or less without subterranean storage or parking that are not built integral to an above ground multi-story parking structure.
5. Should construction that is three stories or less that does not exceed 50,000 square feet on any single story include subterranean storage or parking, then this ordinance shall apply only to the subterranean areas.

S. Section 510.2 is hereby deleted without replacement.

T. Section 510.4.2.2 is hereby revised to read as follows:

U. Section 510.4.2.2 Technical Criteria, is revised to read as follows:

510.4.2.2 Technical Criteria. The fire code official shall maintain a document providing the specific technical information and requirements for the emergency responder radio coverage system. This document shall contain, but not be limited to, the various frequencies required, the location of radio sites, effective radiated power of radio sites, and other supporting technical information.

1. The frequency range supported from the 800 MHz Countywide Communications System shall be 851-869 MHz (base transmitter frequencies).
2. The frequency range supported to the 800 MHz Countywide Communications System shall be 806-824 MHz (radio field transmit frequencies).
3. A public safety radio amplification system shall include filters to reject frequencies below 851 MHz and frequencies above 869 MHz by a minimum of 35dB.
4. All system components must be 100 percent compatible with analog and digital modulations after installation without adjustments or modifications. The systems must be capable of encompassing the

frequencies stated herein and capable of future modifications to a frequency range subsequently established by the jurisdiction.

5. Active devices shall have a minimum of -50 dB 3<sup>rd</sup> order intermodulation protection.
6. All active in-building coverage devices shall be FCC Part 90 Type Certified

V. Section 510.5.1 Approval Prior to Installation, is revised to read as follows:

510.5.1 Approval Prior to Installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior plan submittal, coordination and approval from Orange County Communications and a copy of the approved plan provided to of the fire and building code officials.

W. Section 510.5.2 Minimum Qualifications of Personnel, is revised to read as follows:

Section 510.5.2 Minimum Qualifications of Personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:

1. A valid FCC-issued general radio operator's license.
2. Certification of in-building system training issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed.

X. Section 510.5.3 Acceptance Test Procedure, subsection 7, is hereby revised to read as follows:

510.5.3 Acceptance test procedure. When an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to ensure that two-way coverage on each floor of the building is not less than 90 percent. The test procedure shall be conducted as follows:

7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at the time of installation and subsequent annual inspections by the FCC licensed technician hired by the property owner and an OCSD/Communications Division FCC-certified technician.

- Y. Section 510.6.1 Testing and Proof of Compliance, is hereby revised to read as follows:

510.6.1 Testing and Proof Compliance. The owner of the building or their representative shall have the emergency responder radio coverage system inspected and tested annually or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

1. In-building system components shall be tested to determine general functional operability.
2. Signal boosters shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance.
3. Backup batteries and power supplies shall be tested under load of a period of one hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. Other active components shall be checked to verify operation within the manufacturer's specifications.
5. If noncompliance is found, the FCC licensed technician will assess improvements necessary and provide such information to OCSD Communications and the fire and building code officials.
6. At the conclusion of the testing, a certification report, which shall verify compliance with Section 510.5.3, shall be submitted to OCSD Communications and the fire and building code officials.

- Z. Section 608.1 Scope, is hereby amended as follows:

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 608.1.

- AA. Section 903.2 Where Required, is hereby revised as follows:



