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ORDINANCE NO. _____

An ordinance amending the Los Angeles Municipal Code and incorporating by reference the 2010 Edition of the California Plumbing Code and further adopt all the current amendments of the Article 4 of Chapter IX of the Los Angeles Municipal Code except for the following changes.

THE PEOPLE OF THE CITY OF LOS ANGELES

DO ORDAIN AS FOLLOWS:

Section 1. Section 94.101.3.6. of the Los Angeles Municipal Code is amended to read:

94.101.3.6. Types of Plans Required to be Submitted. Plans signed by a qualified submitter shall be filed with and approved by the Department before any work listed below is started:

- 1. Drainage systems.
 - a. Drainage and vent systems for a building or structure involving fixtures that discharge 217 or more drainage fixture units.
 - b. Drainage pumps and ejectors.
- 2. Combination waste and vent systems.
- 3. Fuel gas piping with any of the following:
 - a. Systems having more than ten outlets.
 - b. Medium pressure gas systems.
 - c. High pressure gas systems
 - d. Methane gas extraction systems.
- 4. Potable water piping with any of the following:
 - a. Systems requiring a 2-inch or larger supply.
 - b. Systems designed from the procedure in Section 610.5 of the Code.
 - c. Systems utilizing cross-linked polyethylene tubing (PEX) requiring a 2-inch or larger supply or when required by the conditions of approval of the City of Los Angeles Mechanical Testing Laboratory Research Report.

Date: 09-28-10

Submitted in PLUM Committee

Council File No: 10-2335

Item No.: 1

Deputy: submitted by Dept. of Bldg and Safety

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d. Systems utilizing CPVC piping requiring a 2-inch or larger supply or when required by the conditions of approval of the City of Los Angeles Mechanical Testing Laboratory Research Report.

EXCEPTION: Plan check is not required for existing systems that are added to or altered, with branch lines that serve fewer than 20 fixture units and sized by Table 6-4.

- 5. Rainwater piping systems with more than ten interconnected rainwater or overflow drains, or a rainwater pump.
- 6. Special water piping systems for reclaimed water piping.
- 7. Subsurface drainage piping.
- 8. Swimming pool circulating water systems.

EXCEPTION: Private swimming pools

- 9. Fire Protection.
 - a. Class H Standpipes.
 - b. Standpipes: Class I, II, III
 - c. Fire pump systems.
 - d. Fire hydrant systems.
 - e. Hand hose systems connected to fire sprinkler piping.
 - f. Monitor nozzle systems.
 - g. Underground fire protection piping.
 - h. Fire sprinkler systems

EXCEPTIONS:

- 1. Raising or lowering of sprinklers due to change in ceiling height.
- 2. Replacing of sprinklers of the same type, orifice size and temperature rating.
- 3. Relocation of sprinklers in previously occupied buildings or tenant spaces.

Justification:

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Exception to subsection 8 has been added to for clarification. Mechanical plan check has not been checking private swimming pools. It was never intended to require plan check for private swimming pools for non commercial use accessory to a single-family dwelling and available to the family of the house hold and their guests. The requirements for private pools are less stringent than for public pools and to generate plans and calculations would be an undue burden.

Subsections c and d have been added to account for new materials allowed in this code.

Sec. 2. Section 94.103.3.4 of the Los Angeles Municipal Code is amended to read:

~~94.103.3.4 Expiration of Permits. Every permit issued by the Authority Having Jurisdiction under the provisions of this code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within one hundred eight (180) days from the date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of one hundred eighty (180) days. Before such work can be recommenced, a new permit shall first be obtained to do so, and the fee therefore shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work, and provided further that such suspensions or abandonment has not exceeded one year.~~

~~Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The Authority Having Jurisdiction may extend the time for action by the permittee for a period not exceeding one hundred eight (180) days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once. In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee.~~

Permits shall expire as provided for in Section 98.0602 of the Los Angeles Municipal Code.

Justification: The requirements of this section are covered in Section 98.0602, which applies to the expiration of all permits including plumbing permits.

Sec. 3. Section 94.103.3.5 of the Los Angeles Municipal Code is amended to read:

~~94.103.3.5 Suspension or Revocation. The Authority Having Jurisdiction may, in writing, suspend or revoke a permit issued under the provisions of this code whenever the permit is issued in error or on the basis of incorrect information supplied or in violation of other ordinance or regulation of the jurisdiction,~~

Permits may be revoked as provided in Section 98.0601 of the Los Angeles Municipal Code.

Justification: The requirements of this section are covered in section 98.0601, which applies to the suspension and revocation of all permits including plumbing permits.

CHAPTER 2 - DEFINITION OF TERMS

Sec. 4. Chapter 2 of the California Plumbing Code (C.P.C.) is hereby adopted by reference with the following exceptions:

203.0. A.

Section 203.0 of the C.P.C. is hereby adopted by reference with the following additions and amendments:

Administrative Authority. The Superintendent of Building or an authorized agent.

Applicant. The person signing the application and paying the fees.

~~**Authority Having Jurisdiction.** The organization, office, or individual responsible for enforcing the requirements of a code or standard or approving equipment, Materials, installations, or procedures. The Authority Having Jurisdiction shall be federal, state, local, or other regional department or an individual such as a plumbing official, mechanical official, labor department official, or others having statutory authority, the Authority Having Jurisdiction may be some other responsible party. This definition shall include the Authority Having Jurisdiction's duly authorized representative. The City of Los Angeles Department of Building and Safety.~~

Justification: Carry over from previous Code (Editorial change).

204.0. B.

Section 204.0 of the C.P.C. is hereby adopted by reference with the following addition:

Board. The Board of Building and Safety Commissioners.

Justification: Carry over from previous Code (Editorial change).

205.0. C.

Section 205.0 of the C.P.C. is hereby adopted by reference with the following addition:

Commercial Pre-rinse Spray Valves (PRSV). Assemblies consisting of a flexible hose and spray head for attachment to a faucet with a built-in diverter

Justification: To incorporate definitions from the City of Los Angeles Ordinance Number 180822.

206.0. D.

Section 206.0 of the C.P.C. is hereby adopted by reference with the following amendments and additions:

Department. The Department of Housing and Community Development Building and Safety.

Justification: Carry over from previous Code (Editorial change).

Dual Flush Toilet. A toilet that has two flush modes, one at 1.1 gallons per flush or less and one at 1.6 gallons per flush or less with an effective 1.28 gallons per flush

Justification: To incorporate definitions from the City of Los Angeles Ordinance Number 180822.

207.0. E.

Section 207.0 of the C.P.C. is hereby adopted by reference with the following addition:

Energy Star®. A joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy. ENERGY STAR is a voluntary program designed to identify and promote energy-efficient products and practices.

Justification: To incorporate definitions from the City of Los Angeles Ordinance Number 180822.

215.0. M.

Section 215.0 of the C.P.C. is hereby adopted by reference with the following additions:

Maintenance Certificate of Registration. A certificate issued to the owner or occupant of specified premises for the sole purpose of adding to, altering, maintaining or repairing existing plumbing, only on the premises specified.

Maintenance Supervisor. A person holding a valid Certificate of Qualification as a maintenance supervisor and who is in the employ of a person holding a valid Maintenance Certificate of Registration.

Justification: Carry over from previous Code (Editorial change).

218.0. P.

Section 218.0 of the C.P.C. is hereby adopted by reference with the following additions:

“Private” or “Private Use” refers to plumbing fixtures in residences and apartments Private or Private Use., private bathrooms in hotels and hospitals, and restrooms in commercial establishments where the fixtures are intended for the use of a family and their guests or an individual.

Public or Public Use All uses of fixtures or structures that are not defined as private or private use.

Justification: To incorporate definitions from the City of Los Angeles Ordinance Number 180822.

221.0. S.

Section 221.0 of the C.P.C. is hereby adopted by reference with the following addition:

Self-Closing Faucet. A faucet designed to close itself as the activating mechanism is released.

Justification: To incorporate definitions from the City of Los Angeles Ordinance Number 180822.

CHAPTER 3 - GENERAL REGULATIONS

Sec. 5. Chapter 3 of the C.P.C. is hereby adopted by reference.

CHAPTER 4 - PLUMBING FIXTURES AND FIXTURE FITTINGS

Sec. 6. Chapter 4 of the C.P.C. is hereby adopted by reference, with the following amendments:

Section 402.1 is not adopted

Justification: This Section has been incorporated into Section 402.1.1 to capture the requirements from the City of Los Angeles Ordinance Number 180822.

Section 94.402.1.1 is hereby added to read:

94.402.1.1 All plumbing fixtures shall meet the following flow rate requirements:

<u>Fixture Type</u>	<u>Maximum Flow rate</u>
<u>Shower heads</u>	<u>2 gpm</u>
<u>Lavatory faucets for private use</u>	<u>1.5 gpm</u>
<u>Lavatory faucets for public use</u>	<u>0.5 gpm</u>
<u>Metered faucets</u>	<u>0.25 gallons per cycle</u>
<u>Kitchen faucets</u>	<u>2.2 gpm</u>
<u>Pre-rinse spray valves in commercial kitchen</u>	<u>1.6 gpm</u>
<u>All other faucets</u>	<u>2.2 gpm</u>
<u>Wash fountains</u>	<u>2.2 gpm</u>
<u>Water closets</u>	<u>1.28 gallons per flush</u>
<u>Urinals</u>	<u>0.125 gallons per flush</u>
<u>Domestic dishwasher</u>	<u>5.8 gallons per washing cycle</u>
<u>Commercial dishwashers</u>	<u>The maximum water use for high efficiency</u>

	commercial dishwashers shall be in accordance with Table 4-0.
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TABLE 4-0

WATER USE FOR COMMERCIAL DISHWASHER WATER USE^{1,2}

Type	High-Temperature Maximum gallons per rack	Chemical Maximum gallons per rack
Conveyer	0.70	0.62
Door	0.95	1.16
Under-counter	0.90	0.98

1. The maximum water use per washing cycle for high efficiency domestic dishwashers shall be 5.8 gallons.
2. All installed dishwashers shall be Energy Star® rated.

Justification: To incorporate requirements from the City of Los Angeles Ordinance Number 180822.

Section 402.2.of the CPC is not adopted.

Justification: This section has been incorporated into Section 402.1.1 to capture the requirements from the City of Los Angeles Ordinance Number 180822.

Section 402.3 of the CPC is amended to read as follows:

94.402.3 Urinals

Section 402.3 of the C.P.C. is modified to read:

~~402.3 Urinals. Urinals shall have an average water consumption of a maximum of 1 gallon (3.8 liters) of water per flush.~~

~~402.3.1 Urinals after January 1, 1994 [HCD 1 & HCD 2] Urinals and associated flushometer valves sold or installed after January 1, 1994, shall use no more than an average of one gallon (3,8 liters) per flush. See Health and Safety Code Section 17921.3~~

~~402.3.2 Urinals on or after July 1, 2011 [HCD 1 & HCD 2] Urinals and associated flushometer valves sold or installed on or after July 1, 2011, shall use no more than 0.5 gallons (1.9 liters) per flush and meet performance criteria as established in ASME A112.19.2, Standard for Vitreous China Plumbing Fixtures and Hydraulic Fixtures Requirements for Water Closets and Urinals.~~

94.402.3.3 Nonwater Supplied Urinals (Waterless Urinals) [HCD 1 & HCD 2] - Waterless urinals sold or installed in this state shall comply with all of the following requirements:

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(1) Meet performance, testing, and labeling requirements established by ASME A112.19.19-2006, Standard for Vitreous China Nonwater Urinals, for vitreous china non-water supplied urinals.

(2) Be listed by an ANSI accredited third-party certification agency to ASME A 112.19.19-2006, Standard for Vitreous China Nonwater Urinals.

(3) Follow cleaning and maintenance procedures established by the manufacturer.

(4) Conform to reference standards in Table 14-1 for non-vitreous ceramic or plastic urinal fixtures.

(5) Provide water distribution and fixture supply piping, sized as required elsewhere in this code, roughed-in immediately adjacent to each waterless urinal fixture installed.

For additional information, see the California Health and Safety Code Section 17921.4.

94.402.3.4. Nonwater Urinals. [Not adopted by OSHPD 1, 2, 3, and 4] Nonwater urinals shall be listed and comply with the applicable standards referenced in Table 14-1. Nonwater urinals shall have a barrier liquid sealant to maintain a trap seal. Nonwater urinals shall permit the uninhibited flow of waste through the urinal to the sanitary drainage system. Nonwater urinals shall be cleaned and maintained in accordance with the manufacturer's instructions after installation. Where nonwater urinals are installed they shall have a water distribution line rough-in to the urinal location to allow for the installation of an approved backflow prevention device in the event of a retrofit.

Justification: This Section has been incorporated in section 402.1.1 to capture the requirements from the City of Los Angeles Ordinance Number 180822.

Section 402.4 of the C.P.C. is hereby adopted by reference with the following additions and amendments:

94.402.4 Metered faucets. ~~All faucets in public restrooms shall be self-closing or self-closing metering faucets shall be installed on lavatories intended to serve the transient public, such as those in, but not limited to, service stations, airports restaurants, and convention halls. Metered faucets shall deliver a maximum of 0.26 gallons (1.0) liter) of water per use.~~

Justification: To incorporate requirements from the City of Los Angeles Ordinance Number 180822.

CHAPTER 5 - WATER HEATERS

Chapter 5 of the C.P.C. is hereby adopted by reference.

CHAPTER 6 - WATER SUPPLY AND DISTRIBUTION

Sec. 7. Chapter 6 of the C.P.C. is hereby adopted by reference with the following exception:

~~94.604.10 Water pipe and fittings with a lead content which exceeds eight (8) percent shall be prohibited in piping systems used to convey potable water. Water pipes, plumbing fittings, fixtures, solder, and flux with lead content shall comply with the California Health and Safety Code Section 116875~~

~~Note: On or after January 1, 2010, see section 116875 of the Health and Safety Code For the lead content pipes, or plumbing fittings, or fixtures intended for to convey or dispense water for human consumption.~~

Justification: Mandated by the California Health and Safety Code, Section 116875. In addition, the "Note" does not apply because this Code became effective after January 1, 2010, and the requirements have already been incorporated in the 2007 C.P.C.

CHAPTER 7 - SANITARY DRAINAGE

Chapter 7 of the C.P.C. is hereby adopted by reference.

CHAPTER 8 - INDIRECT AND SPECIAL WASTE

Chapter 8 of the C.P.C. is hereby adopted by reference.

CHAPTER 9 - VENTS

Chapter 9 of the C.P.C. is hereby adopted by reference.

CHAPTER 10 – TRAPS AND INTERCEPTORS

Chapter 10 of the C.P.C. is hereby adopted by reference.

CHAPTER 11 - STORM DRAINAGE

Sec. 8. Chapter 11 of the C.P.C. is adopted by reference, with the following additions and amendments:

Section 1101.11.2.2.2 is not adopted.

Section 1101.13 of the C.P.C. is hereby adopted by reference with the following additions and amendments:

94.1101.13 All rainwater shall drain by gravity to a place of disposal satisfactory to the Department. If the rainwater cannot be drained by gravity, discharge into a sump may be permitted. Roof drainage shall not have a direct connection to a sump having an air-tight cover. Rainwater sumps serving "public use" occupancy buildings shall be provided with dual pumps arranged to function alternately in case of overload or mechanical failure. The pumps shall have an audio and visual alarm, readily accessible, that signals pump failure or an overload condition. The lowest inlet shall

have a minimum clearance of two (2) inches (51 mm) from the high-water or "starting" level of the sump.

Justification: Los Angeles has long periods of drought, and if the pumping system is not regularly exercised it may fail and cause the roof to be overloaded and possibly collapse.

Section 1104.3 is not adopted.

Justification: Carry over from previous Code (Editorial change).

CHAPTER 12 - FUEL PIPING

Sec. 9. Chapter 12 of the C.P.C is hereby adopted by reference.

CHAPTER 13 - HEALTH CARE FACILITIES AND MEDICAL GAS AND VACUUM SYSTEMS

Chapter 13 of the C.P.C. is not adopted.

Justification: Carry over from previous Code (The Department does not regulate Medical Gas and Vacuum Systems in Health Care Facilities).

CHAPTER 14 - MANDATORY REFERENCED STANDARDS

Chapter 14 of the C.P.C. is hereby adopted by reference.

Sec. 10. Chapter 15 of the C.P.C is not adopted.

Language to be incorporated under the "Title" with the following sentence:

CHAPTER 15 – FIRE STOP PROTECTION

Not adopted by the City of Los Angeles.

Justification: Although the model Code language for this Chapter has been published, no State Agency has adopted this Chapter. This specification avoids confusion.

CHAPTERS 16 – NONPOTABLE WATER REUSE SYSTEMS

Sec. 11. Chapter 16A of the C.P.C. is hereby adopted.

Sec. 12. Chapter 17 is added to the Los Angeles Municipal code to read:

CHAPTER 17 – UNIFORM SWIMMING POOL, SPA, AND HOT TUB

SEC.94.1700.0. BASIC PROVISIONS. The 2009 Uniform Swimming Pool, Spa and Hot Tub Code is hereby adopted by reference.

Justification: Nowhere else in the Plumbing Code are the requirements for Swimming Pool Spa and Hot Tubs addressed. Since the City of Los Angeles has a relatively hot climate, the use of swimming pools are very common.

Sec. 13. Chapter 18 is added to the Los Angeles Municipal Code to read:

CHAPTER 18 – UNIFORM SOLAR ENERGY CODE

SEC. 94.1800.0. BASIC PROVISIONS. The 2009 Uniform Solar Energy Code, Chapters 2 through 8, is hereby adopted by reference.

Justification: Since Los Angeles has the ideal climate for Solar Energy Systems, they are being installed more and more frequently. Chapters 2 through 8 are the relevant Chapters to the Plumbing Code.

APPENDICES

Sec. 14. Appendices A, B, D, G, I, and K of the C.P.C. are hereby adopted by reference.

Sec. 15.

CHAPTER 20 - FIRE PROTECTION SYSTEMS

Section 94.2002.0 of the Los Angeles Municipal Code is hereby amended to read:

SEC. 94.2002.0. ADOPTED STANDARDS. All fire sprinkler and standpipe design, installation and materials shall be in conformity with the 2004 2010 edition of the California Building Code and to the applicable portions of standards as specified in Table 20-1 of this Chapter ~~Division~~, except when specified in this Chapter ~~Division~~ as modified or not adopted.

TABLE 20-1

FIRE PROTECTION STANDARDS.	STANDARD*
Installation of Sprinkler Systems	NFPA 13-2002 <u>2010</u>
Installation of Sprinkler Systems in Group R Occupancies Four or Fewer Stories	NFPA 13R-2002 <u>2010</u>
Installation of Sprinkler Systems in One- and Two-Family Dwellings	NFPA 13D-2002 <u>2010</u>
Standpipe and Hose Systems	NFPA 14-2003 <u>2007</u>
Centrifugal Fire Pumps	NFPA 20-2003 <u>2007</u>
Water Tanks for Private Fire Protection	NFPA 22- 2003
Private Fire Service Mains	NFPA 24-2002 <u>2010</u>
Standard for the Inspection, Testing, and Maintenance of Water –Based Fire Protection Systems	NFPA 25 2006 California Edition
Cutting and Welding Processes	NFPA 51B-1999 <u>2009</u>

Hose Threads	NFPA 1963-1998 <u>2009</u>
Power Piping	ANSI/ASME B31-1-2001

*NFPA - Published by the National Fire Protection Association.

*ANSI/ASME - Published by the American Society of Mechanical Engineers.

Other NFPA Standards as applicable in Section 2.2 of NFPA 13-2002 2010 may be used by reference except when specified in this Chapter Division as modified or not adopted. Wherever reference is made to the Uniform Fire Code it shall mean the Los Angeles Fire Code.

Justification: The California Building Code (CBC) has adopted new standards. "Division" has been changed with "Chapter" for consistency.

Sec. 16

Section 94.2003.0 of the Los Angeles Municipal Code is hereby amended to read:

SEC. 94.2003.0. DEFINITIONS.

The terms defined herein shall apply to this Chapter and shall be in addition to the terms defined by NFPA in the Fire Protection Standards adopted in Table 20-1 of this Chapter unless otherwise stated.

Acceptance is acceptance by the building official of Administrative Authority.

Arm-over is a horizontal pipe the extends from the branch line to a single sprinkler or sprinkler above and below a ceiling

~~Authority having Jurisdiction is the Building official or the Administrative Authority~~

Justification: Already defined in Section 94.203.0 of the Los Angeles Plumbing Code.

Building Official is the Superintendent of Building and Safety, or authorized representative, charged with the administrative enforcement of this Code.

Compact Storage is a system of mobile shelving units mounted on rails, and designed to provide the maximum number of rows in a minimum area of floor space.

~~**Compartment** is a space completely enclosed by walls and ceiling. The compartment enclosure is permitted to have openings in walls to an adjoining space if the openings have a minimum lintel depth of 8 inches from the ceiling and the total of all openings do not exceed 8 feet in width. A single opening of 36 inches or less is permitted when there are no other openings to adjoining spaces.~~

Justification: The NFPA 13, 2010 Standard defines Compartment.

Pilot Heads are wet fire sprinklers installed over piping in unsprinklered areas to protect them from fire damage.

Out of Operation is the state of either a pump, a pump driver, a riser, a pressure regulator or any other fire protection appurtenance being non-functional.

Residential Occupancies are Group R Occupancies.

~~**Small Room** is a room of light hazard occupancy classification having unobstructed construction and floor areas not exceeding 800 ft² that are enclosed by walls and a ceiling. Openings in walls not exceeding 8 feet in width to adjoining spaces are permitted if the minimum lintel depth is 8 inches from the ceiling. A single opening of 36 inches or less in width without a lintel is permitted when there are no other openings to adjoining spaces.~~

Justification: The NFPA 13, 2010 Standard defines Small Room.

Sprinkler Alarm is a local alarm unit assembly or apparatus constructed and installed so that any flow of water from a sprinkler system equal to or greater than that from a single automatic sprinkler will result in audible alarm signal on the premises.

Sprinkler System for fire protection purposes is an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. The installation includes a water supply, such as a gravity tank, fire pump, reservoir or pressure tank and/or connection by underground piping to the City main. The portion of sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure or area, generally overhead and to which sprinklers are connected in a systematic pattern. The system includes a controlling valve and a device for actuating an alarm when the system is in operation. The system is activated by heat or smoke from a fire and discharges water over the fire area.

Standard is a document containing only mandatory provisions, using the word "shall" to indicate requirements. Explanatory material may be included only in the form of fine print notes, in footnotes, or in an appendix.

Standpipe System is a wet or dry system of piping, valves, outlets and related equipment designed to provide water at specified pressures and installed exclusively for the fighting of fires including the following:

Class I is a standpipe system equipped with 2-1/2 inch outlets.

Class II is a wet standpipe system directly connected to a water supply and equipped with 1-1/2 inch outlets intended for use by the building occupants.

Class III is a combination standpipe system directly connected to a water supply and equipped with both 1-1/2 inch outlets for use by the building occupants and 2-1/2 inch

outlets for use by the Fire Department or trained personnel. Hose connections for Class III systems may be made through 2-1/2 inch hose valves with easily removable 2-1/2 inch by 1-1/2 inch reducers.

Water Curtain is a line of closely spaced fire sprinklers (or a single sprinkler) aligned adjacent to openings to keep fire from penetrating those openings.

Sec. 17

Section 94.2007.0 of the Los Angeles Municipal Code is hereby amended to read:

SEC. 94.2007.0. Reserved—DRAINAGE REQUIREMENT FIRE PROTECTION SYTEMS.

All drains shall terminate to an approved location as follows:

1. Drains shall terminate outside the building, subject to the approval of the Department

2. Sanitary Sewer, provided that the Sewer System is adequately sized per the Plumbing Code.

3. Discharge through the curb-face at the street.

4. In high-rise buildings all drains shall terminate to the fire water storage tank, when available. In the event drains are located below the water level of the tank, a sump pump shall be provided to pump the water back to the fire water storage tank.

Justification: Clarification of an approved drainage location, and to enhance the State and the City Los Angeles's efforts to conserve water.

Sec. 18

Section 94.2010.0 of the Los Angeles Municipal Code is hereby amended to read:

SEC. 94.2010.0. NFPA-13.

NFPA 13-2002 2010 is adopted by reference with the following exceptions and modifications.

94.2010.1. Section 1.4 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.2. Section 3.2 is adopted by reference except that the following sections are not adopted:

3.2.2 Authority Having Jurisdiction.

3.2.6 Standard

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

~~3. Section 3.3 is adopted by reference except that the following sections are not adopted~~

~~**3.3.6 Compartment**~~

~~**3.3.20 Small Room**~~

Justification: The NFPA-13, 2010 Standard defines Compartment and Small Room.

94.2010.3 ~~4~~ Section 5.1.3 ~~2-4~~ is amended to read:

5.1.3 Classification of Occupancies. For the purpose of determining the level of protection to be provided by required sprinkler system installations, Table No. 5-1 of this Division Chapter shall be used.

For hazard classification other than those indicated, see appropriate nationally recognized standards for design criteria.

When fire sprinkles systems are required in buildings of undetermined use, they shall be designed and installed to have a sprinkler density of not less than that required of an Ordinary Hazard Group 2 use with a minimum design area of 3,000 square feet. Use is considered undetermined if not specified at the time of permit issued.

Where a subsequent occupancy requires a system with a greater capability, it shall be the responsibility of the occupant and/or owner to upgrade the system to the required density for the new occupancy.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards. In addition, "Division" has been changed with "Chapter" for consistency.

94.2010.3.1 is added to read:

5.1.3.1 Group H, Division 5 Occupancies. Where the design area of the sprinklers system consists of a corridor protected by one row of sprinklers, the maximum number of sprinkler required to be calculated is 13.

Justification: Added by the Office of the State Fire Marshall (SFM) (CBC 903.2.5.2)

94.2010.3.2 is added to read:

5.1.3.2 Group L Occupancies. Research laboratories and similar areas of a group L occupancy shall not be less than that required for Ordinary Hazard Group 2 with a design area of not less than 3,000 square feet (279 m²)

Justification: Added by the Office of the State Fire Marshall (SFM) (CBC 903.2.16)

TABLE NO. 5.1

HAZARD CLASSIFICATION

OCCUPANCY OF BUILDING OR PORTION THEREOF	HAZARD CLASSIFICATION
<p>Group A Occupancies used as meeting rooms, library reading rooms, restaurant seating areas, clubs, theaters, museums, health clubs, educational classrooms and churches.</p> <p>Group B Occupancies used as offices, data processing areas, colleges and universities.</p> <p>Group E Occupancies other than shops and laboratories.</p> <p>Group I Occupancy living and sleeping areas</p> <p>Group R, Division I Occupancies¹. Typically, one would expect that these uses are such that the quantity and combustibility of contents results in relatively low-rate-of-heat-release fires.</p>	<p>Light</p>
<p>Groups B, F, S and U Occupancies used for light manufacturing, commercial kitchens, laundries, automobile parking garages, bakeries, canneries, electronic plants, beverage manufacturing and glass products manufacturing plants not producing dust or fibers. <u>In mixed occupancies housing group L occupancies, the portions of the building not classified as group L occupancy.</u> Typically these uses are such that the quantity of combustibles is relatively low, the combustibility of contents is moderate, storage does not exceed 8 feet in height, and moderate-rate-of-heat-release fires would be expected.</p>	<p>Ordinary Group I</p>

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<p>Groups B, F, M, and S Occupancies used for chemical plant laboratories, mercantile, machine shops, printing plants, library stack areas, metal working, wood product assembly, textile manufacturing, confectionery products, cold storage warehouses², cereal mills, service stations and repair garages. Typically these uses are such that the quantity of combustibles is moderate. The combustibility of contents is moderate, storage does not exceed 12 feet in height² and moderate-rate-of-heat-release fires would be expected.</p> <p>Also: Group A Occupancies such as exhibition halls.</p> <p>Groups B, F and S Occupancies used as tobacco products manufacturing, paper and pulp mills, piers and wharfs, and warehousing² of higher combustible contents (including packaging).</p> <p>Group H Occupancies used as feed mills, tire manufacturing, chemical plants, repair garages and woodworking. Group H, Division 6 5 Occupancies, except <u>storage rooms with dispensing extra hazard areas. Research laboratories and similar areas of a group L occupancy.</u> Typically these uses are such that high-rate-of-heat-release fires would be expected and the spread of fire would be rapid.</p>	<p>Ordinary Group 2</p>
<p>Group H Occupancies used for printing (using inks with flashpoints below 100 degrees F.) combustible hydraulic fluid-use areas such as die casting and metal extruding, upholstery with plastic foam, rubber reclaiming, compounding, drying, milling, vulcanizing, plywood and particle board manufacturing, saw mills, textile picking, opening, blending, garneting, carding and combining of cotton, synthetics, wool shoddy or burlap. Typically these uses are such that a significant fire hazard exists.</p>	<p>Extra Hazard Group I</p>
<p>Group H Occupancies used as asphalt saturating, flammable liquids spraying, flow coating, open oil quenching, varnish and paint dipping, solvent cleaning and manufactured home or modular building manufacturing (where the finished building enclosure is present and has combustible interiors). <u>Storage rooms with dispensing located in Group H, Division 5 Occupancies.</u> These uses are such that a severe fire hazard exists.</p>	<p>Extra Hazard Group 2³</p>

¹ See also Section 8.4.5 of NFPA 13- 2002 2010.

² For high-piled storage, see NFPA 13- 2002 2010.

³ For additional and more stringent criteria, see California Fire Code Chapters 27, 28, 34 and the Los Angeles Fire Code.

Justification: Group H division 6 occupancy no longer exists in the Building Code. Hazard classifications for H5 Occupancies have been amended by the SFM (CBC Table 903.2.5.2)

94.2010.4 ~~5~~. Section 6.1.1.2 is not adopted and Section 6.1.1.1 is modified to read:

6.1.1.1 All materials and devices shall be listed an approved.

94.2010.5 ~~6~~ Section 6.3.6.1 is modified to read:

Section 6.3.6.1 Other types of pipe or tube, such as plastic, may be used if it is investigated and found to be listed for this service.

94.2010.6 ~~7~~. Section 6.7.1.3.3 is not adopted

94.2010.7 ~~8~~ Section 6.9.1 is modified to read:

Section 6.9.1 Waterflow alarm apparatus shall be listed for the service and constructed and installed so that any flow of water from a sprinkler system equal to or greater than that from a single automatic sprinkler of the smallest orifice size installed on the system shall result in an audible alarm on the premises within two minutes after the flow begins.

94.2010.8 ~~9~~ Section 6.9.4.1 is modified to read:

Section 6.9.4.1 Electrically operated alarm attachments forming part of an auxiliary, proprietary, remote station or local signaling system shall be installed in accordance with the Los Angeles Fire Code.

Justification: Sections 94.2010.4 through 94.2010.8 have been renumbered.

94.2010.9 ~~10~~ Section ~~8.14.1.2-9~~ 8.15.1.2.9 is modified to read:

~~8.14.1.2-9~~ 8.15.1.2.9 Concealed spaces with volumes not exceeding 160 cubic feet above a room or aggregate of rooms not exceeding 55 square feet in area, shall not require sprinkler protection

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

~~11 Sections 8.14.4.1 through 8.14.4.5 are not adopted and section 8.14.4 is modified to read:~~

~~8.14.4. Water curtains shall consist of closely spaced sprinklers in combination with draft stops. The draft stops shall be located immediately adjacent to the opening, shall be at least 18 inches deep and shall be of noncombustible to limited combustible material that will stay in place before and during sprinkler operation. Sprinklers shall be spaced not more than six feet apart and placed six to 12 inches from the draft stop on~~

~~the side away from the opening. Where sprinklers are closer than six feet, cross baffles shall be provided in accordance with Section 8.6.3.4.2 of NFPA 13~~

Justification: This section has been relocated to 94.2010.14

~~12. Section 8.15.1.1.2.5 is added to read:~~

~~8.15.1.1.2.5. All valves controlling the water supply for automatic sprinkler systems and water flow switches on all sprinkler systems shall be electrically monitored where the number of sprinklers are:~~

~~1. Twenty or more in Group I, Division 1.1 and 1.2 Occupancies.~~

~~2. One hundred or more in all other occupancies. Valve monitoring and water flow alarm and trouble signals shall be distinctly different and shall be automatically transmitted to an approved central station, remote station or proprietary monitoring station as defined by national standards, or, when approved by the Building Official with the concurrence of the Chief of the Fire Department, sound an audible signal at a constantly attended location.~~

~~**EXCEPTION:** Underground key or hub valves in roadway boxes provide by the municipality or public utility need not be monitored.~~

Justification: This Section has been relocated to Section 94.2010.22.

~~13. Section 8.15.1.1.7 is modified to read:~~

~~8.15.1.1.7. **Valve Access.** All valves controlling water supplies for sprinkler systems or portions of the system shall be accessible. These valves shall be within six feet six inches of the floor or shall be operable from fixed ladders or clamped tread ladders on risers, or use chains within six feet six inches of the floor connected to valve hand wheels or other suitable means. All valves shall be provided with adequate clearance for normal operation~~

Justification: This Section has been relocated to Section 94.2010.23

~~2010.10 14 Section 8.15.1.1.9 is added to read:~~

~~8.15.1.9.1 **Floor (Level) Control Valves.**~~

~~1. **Where required.** In buildings with over two levels or two floors, a supervised valve capable of independently controlling the fire sprinkler system on each level, penthouse, roof structure, mezzanine, and basement level shall be installed. The maximum area covered by a single floor control valve shall not exceed the areas specified in section 8.2 of NFPA 13.~~

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EXCEPTIONS:

~~1. Floor control valves need not be provided for levels, penthouses, roof structures, mezzanines and basement levels with 20 or fewer fire sprinklers.~~

~~2. In partially sprinklered buildings, sprinklers serving window openings along an exitway or property line, or stair shafts and adjacent doors may have a sectional control valve to control the system in each of these areas instead of a floor control valve.~~

~~3. Valves required for hazardous locations may be located downstream of a floor control valves.~~

~~4. One and two family dwellings.~~

~~2. Locations. Floor control valves shall be within a stairway enclosure or within the vestibule or on the access balcony of a smoke proof enclosure.~~

EXCEPTIONS:

~~1. In buildings with three or fewer stories or where there is no stair way that serves a floor, control valves may be located elsewhere on the floor level.~~

~~2. Unenclosed stair ways in parking garages.~~

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.11 45 Section 8.15.1.1.10 is amended and added to read:

8.15.1.1.10 Special Hazard Locations and Hazardous Occupancies. The piping serving each linen chute, each paint spray booth, each trash room, and each separate trash room shall be controlled by valves that control no other sprinklers.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.12 46 Section 8.15.1.2.6 is amended and added to read:

8.15.1.2.6 Identification Pressure Regulators. Signs shall be posted at pressure regulators for fire sprinklers stating the required setting of the pressure regulator.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

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94.2010.13. Section 8.15.1.2.15 is amended and added to read:

8.15.1.2.15 Exterior columns under 10 ft² (0.93 m²) in total area, formed by studs or wood joist, with no sources of ignition within the column, supporting exterior canopies that are fully protected with a sprinkler system, shall not require sprinkler protection.

Justification: Amended by the Office of the State Fire Marshall (SFM), and renumbered to provide the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.14. Sections 8.15.4.1 through 8.15.4.5 are not adopted and Section 8.14.4 8.15.4 is modified to read:

8.15.4 Water curtains shall consist of closely spaced sprinklers in combination with draft stops. The draft stops shall be located immediately adjacent to the opening, shall be at least 18 inches deep and shall be of noncombustible or limited-combustible material that will stay in place before and during sprinkler operation. Sprinklers shall be spaced not more than six feet apart and placed six to 12 inches from the draft stop on the side away from the opening. Where sprinklers are closer than six feet, cross baffles shall be provided in accordance with Section 8.6.3.4.2 of NFPA-13.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.15. Section 8.15.7.1 is amended and added to read:

8.15.7.1 Unless the requirements of 8.15.7.2 8.15.7.3 are met sprinklers shall be installed under exterior roofs, canopies, porte-cocheres, balconies, decks or similar projections exceeding 4ft (1.2m) in width.

Justification: Amended by the Office of the State Fire Marshall (SFM).

94.2010.16. Section 8.15.7.2 is amended and added to read:

8.15.7.2. Sprinklers shall be permitted to be omitted where the canopies, roofs, balconies, decks, or similar projections are constructed with materials that are noncombustible, limited-combustible, or fire retardant treated wood as defined in NFPA 703, Standard for Fire Retardant-Treated Wood and Fire Retardant Coatings for Building Materials.

Justification: Amended by the Office of the State Fire Marshall (SFM).

94.2010.17. Section 8.15.7.3 is amended and added to read:

8.15.7.3 Sprinklers shall be permitted to be omitted from below the canopies, roofs, ~~porte-cochere~~, balconies, decks, or similar projections of combustible construction, provided the exposed finish material on the roof, or canopy, is noncombustible, limited-

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combustible, or fire retardant treated wood as defined in NFPA 703, Standard for Fire Retardant-Treated Wood and Fire-Retardant Coatings for Building Materials, and the roofs, or canopies, contains only sprinklered concealed spaces or any of the following unsprinklered combustible concealed spaces:

1. Combustible concealed spaces filled entirely with noncombustible insulation.
2. Light or ordinary hazard occupancies where noncombustible or limited-combustible ceilings are directly attached to the bottom of solid wood joists so as to create enclosed joist spaces 160 ft³ (4.5 m³) or less in volume, including space below insulation that is laid directly on top or within the ceiling joists in an otherwise sprinklered attic [See 11.2.3.1.4(4)(d)].
3. Concealed spaces over isolated small roofs, or canopies, not exceeding 55 ft².

Justification: Amended by the Office of the State Fire Marshall (SFM).

94.2010.18 Section 8.15.7.4 is not adopted

Justification: Section deleted by the Office of the State Fire Marshall (SFM).

94.2010.19 47 Section 8.16.1.1 is amended and modified to read:

8.16.1.1 Local water-flow alarms shall be provided on each sprinkler system having more than five sprinklers and shall be located in an area approved by the Administrative Authority.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.20 Section 8.16.1.1.1.4 is amended and added to read:

8.16.1.1.1.4 Where a system includes floor control valves, a hydraulic design information sign containing information for the floor shall be provided at each floor control valve. A hydraulic design information sign shall be provided for each area calculated. The installing contractor shall identify a hydraulically designed sprinkler system with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion resistant wire, chain, or other approved means. Such signs shall be placed at the alarm valve, dry pipe valve, pre-action valve, or deluge valve supplying the corresponding hydraulically designed area.

Justification: Added Section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

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94.2010.21. Section 8.16.1.1.1.5 is added, modified and amended to read:

D 8.16.1.1.1.5 Control valves, check valves, drain valves, antifreeze valves shall be readily accessible for inspection, testing, and maintenance. Valves located more than 7 feet 6'-6" above the finished floor shall be provided with a means of opening and closing the valve from the floor level.

R Justification: Added Section by the Office of the State Fire Marshall (SFM). Modified to avoid conflict with Section 8.16.1.1.7. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.22 Section 8.16.1.1.2.5 is amended and added to read:

A 8.16.1.1.2.5 All valves controlling the water supply for automatic sprinkler systems and water- flow switches on all sprinkler systems shall be electrically monitored where required by the Los Angeles Building Code Section 91.903.4 and 91.903.4.1.

A EXCEPTION: Underground key or hub valves in roadway boxes provided by the municipality or public utility need not be monitored.

Justification:

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1. Section relocated from Section 94.2010.0, Sub-section 12.
 2. Monitoring is addressed in the Los Angeles Building Code Section 91.903.4 and 91.903.4.1.
 3. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.23. Section 8.16.1.1.7 is amended and added to read:

T 8.16.1.1.7 Valve Access. All valves controlling water supplies for sprinkler systems or portions of the system shall be accessible. These valves shall be within six feet six inches of the floor or shall be operable from fixed ladders or clamped tread ladders on risers, or use chains within six feet six inches of the floor connected to valve hand wheels or other suitable means. All valves shall be provided with adequate clearance for normal operation.

Justification: Section relocated from Section 94.2010.0, Sub-section 13. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.24. Section 8.16.1.1.9 is amended and added to read:

8.16.1.1.9 Floor (Level) Control Valves.

1. Where required. In buildings with over two levels or two floors, a supervised valve capable of independently controlling the fire sprinkler system on each level, penthouse, roof structure, mezzanine and basement shall be installed. The maximum area covered by a single floor control valve shall not exceed the areas specified in section 8.2 of NFPA 13.

EXCEPTIONS:

1. Floor control valves need not be provided for levels, penthouses, roof structures, mezzanines and basement with 20 or fewer fire sprinklers.

2. In partially sprinklered buildings, sprinklers serving window openings along an exit way or property line, or stair shafts and adjacent doors may have a sectional control valve to control the system in each of these areas instead of a floor control valve.

3. Valves required for hazardous locations may be located downstream of floor control valves.

4. One- and two-family dwellings.

2. Locations. Floor control valves shall be within a stairway enclosure or within the vestibule or on the access balcony of a smoke proof enclosure.

EXCEPTIONS:

1. In buildings with three or fewer stories or where there is no stairway that serves a floor, control valves may be located elsewhere on the floor level.

2. Unenclosed stairways in parking garages.

Justification:

1. Section relocated from section 94.2010.0, Sub-section 14.
2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.25. Section 8.16.1.1.10 is amended and added to read:

8.16.1.1.10 Special Hazard Locations and Hazardous Occupancies. The piping serving each linen chute, each paint spray booth, each trash chute, including trash room, and each separate trash room shall be controlled by valves that control no other sprinklers.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.26. Section 8.16.1.2.6 is amended and added to read:

8.16.1.2.6 Identification Pressure Regulators. Signs shall be posted at pressure regulators for fire sprinklers stating the required setting of the pressure regulator.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.27. Section 8.16.1.5.1 is amended to read:

8.16.1.5.1. Large private fire service main systems shall have sectional fire control valves at appropriate points in order to permit sectionalizing the system in the event of break or for the making of repairs or extensions.

Justification: Amended by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.28. Section 8.16.1.5.1.1 is amended and added to read:

8.16.1.5.1.1 Sectional control valves are not required when the fire service main system serves less than six fire appurtenances.

Justification: Added section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.29. Section 8.16.1.5.1.2. is amended and added to read:

8.16.1.5.1.2 Sectional control valves shall be indicating valves in accordance with Section 6.7.1.3. NFPA 13.

Justification: Added section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.30. Section 8.16.1.5.1.3. is amended and added to read:

8.16.1.5.1.3 Sectional control valves shall be located so that no more than five fire appurtenances are affected by shut-down of any single portion of the fire service main. Each fire hydrant, fire sprinkler system riser, and standpipe riser shall be considered a separate fire appurtenance. In-rack sprinkler systems shall not be considered as a separate appurtenance.

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Justification: Added section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.31. Section 8.16.1.5.1.4 is amended and added to read:

8.16.1.5.1.4 The number of fire appurtenances between sectional control valves is allowed to be modified by the authority having jurisdiction.

Justification: Added Section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.32. Section 8.16.1.5.1.5 is amended and added to read:

8.16.1.5.1.5 Looped underground systems shall be provided with sectional valves regardless of the number of appurtenances.

Justification: Clarification of 8.16.1.5.1.4 (geological) in a seismic event this enables isolation of portions of system to provide fire protection to areas not affected. In addition, Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.33. Section 8.16.1.5.2 is amended, added and modified to read:

8.16.1.5.2 A valve shall be provided on each bank where a main crosses a body of water or outside the building foundation(s) where the main or section of main runs under a building.

Justification: Added section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.34. Section 8.16.4.2.4 is not adopted:

Justification: This new Code Section has been addressed in Section 94.2004.0 exception #3 of this chapter. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.35. Section 8.17.1.1 is amended, added and modified to read:

8.17.1.1 Local water-flow alarms shall be provided on each sprinkler system having more than five sprinklers and shall be located in an area approved by the Administrative Authority.

Justification:

1. Section relocated from section 94.2010.0, Sub-section 17.

2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.36. 48 Sections 9.1.1.2 and 9.1.1.3 are not adopted and Section 9.1.1.1 is modified to read:

9.1.1.1 **General.** Types of hangers shall be in accordance with the requirements of Section 9.1 of NFPA 13.

EXCEPTION: Hangers designed by a registered structural or civil engineer for lateral loads in accordance with Section 1613 of the Building Code and the requirements of section 9.3.7 of NFPA 13 shall be acceptable.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.37. Section 9.1.1.4.3 is amended and added to read:

9.1.1.4.3 Fasteners as specified in 9.1.3 9.1.4 and 9.1.5 shall be permitted to be not listed.

Justification: Section 9.1.3 has been removed. All concrete anchors must be approved and installed per the Los Angeles Building Code and Los Angeles City research report. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.38. Section 9.1.3.1 is added to read:

9.1.3.1 Unless prohibited by 9.1.3.2 or 9.1.3.3 , the use of listed inserts set in concrete and listed post- installed anchors to support hangers shall be permitted for mains and branch lines provided they meet the requirements of the LABC 91.1613 and 91.1912 and require special inspection as required by 91.1704 of the LABC and installed in conformance with all listing requirements.

Justification: Geological Clarification of location of the requirements for hangers in concrete. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards. **94.2010.39.** Section 9.1.3.9.1.1 is amended and added to read:

9.1.3.9.1.1 Powder-driven studs used for attaching hangers to the building structure are prohibited in Seismic design Categories C, D, E and F.

Justification: Added section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.40. 19- Section 9.3.5.6.1 is amended and modified to read:

9.3.5.6.1 Unless the requirements of section 9.3.5.6.2 are met, the horizontal loads for braces shall be determined by analysis based on horizontal force of $F_p=0.76 W_p$, where F_p is the horizontal force factor and W_p is 1.15 times the weight of the water filled piping.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.41. 20. Section 9.3.5.8.7 is modified to read:

9.3.5.8.7 Where pipe is used for sway bracing, it shall have a wall thickness of not less than Schedule 40. The loads determined in 9.3.5.6 shall not exceed the lesser of the maximum allowable loads provided in Table 9.3.5.8.7(a), Table 9.3.5.8.7(b), and Table 9.3.5.8.7(c) or the manufacturer's certified maximum allowable horizontal loads for 30- to 44-degree, 45- to 59- degree, 60- to 89-degree, and 90-degree brace angles.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.42 21. Section 9.3.5.8.10 is not adopted.

~~Figure 9.3.5.9.1 is modified by deleting the portion related to lag bolts and lag screws~~

Justification: This section has been deleted. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

22. Section 9.3.5.9.4 is not adopted.

94.2010.43 Section 9.3.5.9.4 is added to read:

9.3.5.9.4 Where lag screws or power-driven fasteners shall not be used to attach sway braces to the building structure.

Justification: Previously not adopted. However, this Section has been modified by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.44. Section 9.3.5.9.6 is amended and added to read:

9.3.5.9.6 Fastening methods other than those identified in 9.3.5.9 and 9.3.5.8.10 shall not apply to other fastening methods, which shall be acceptable for use if certified by a registered professional engineer to support the loads determined in accordance

with the criteria in 9.3.5.6. Calculations shall be submitted to the authority having jurisdiction.

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Justification: Modified by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.45. Section 9.3.5.9.7.2 is amended and added to read:

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9.3.5.9.7.2 Concrete anchors other than those shown in Figure 9.3.5.9.1 and identified in 9.3.5.8.10 shall be acceptable for use where designed in accordance with the requirements of the building code and certified by a registered professional engineer.

Justification: Modified section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

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94.2010.46. Section 9.3.6.1(3) is amended and added to read:

9.3.6.1(3) No. 12, 440 lb (200Kg) wire installed at least 45 degrees from the vertical plane and anchored on both sides of the pipe. Powder-driven fasteners for attaching restraint is allowed to be used provided that the restraint component does not support the dead load.

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Justification: Modified Section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.47. Section 9.3.7.7 is not adopted:

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Justification: Not adopted by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

~~23. Section 9.3.7.8 is modified to read;~~

~~9.3.7.8 Lag Screws or powder driven fasteners shall not be used to attach braces to the building structure~~

Justification: This Section was relocated to 94.2010.43

94.2010.48 24. Section 9.3.7.9 is amended and modified to read:

9.3.7.9 Lag Screws or powder driven fasteners shall not be used to attach to the building structure where ~~the~~ systems are required to be protected against earthquakes

using a horizontal force factor exceeding 0.50 Wp, where Wp is the weight of the water-filled pipe.

Justification: This Section modified due to the Office of the State Fire Marshall's clarification in Section 9.1.3.9.1.1. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.49. Section 10.6.5.is amended and added to read:

10.6.5. Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall not contain mechanical joints.

EXCEPTIONS:

1. Where allowed in accordance with 10.6.2.
2. Alternate designs may be utilized where designed by a registered professional engineer and approved by the enforcing agency.

Justification: Amended Section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.50. Section 10.9.1 is amended and modified to read:

10.9.1. Backfill shall be well tamped in layers or puddle under and around pipes to prevent settlement or lateral movement. Backfill shall consist of clean fill sand or pea gravel to a minimum of 6" below and to a minimum of 12" above the pipe and shall contain no ashes cinders, refuse, organic matter, or other corrosive materials. Other backfill materials and methods are permitted where designed by a registered professional engineer and approved by the enforcing agency.

Justification: Amended Section by the Office of the State Fire Marshall in NFPA 13 & 24, 2010. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.51. 25- Section 41.2.3.1.8 (8) 11.1.6.6 is amended and modified to read:

41.2.3.1.8 (8)-11.1.6.6 When hose valves for Fire Department use are attached to wet pipe sprinkler system risers in accordance with Section 8.16.5.2 8.17.5.2 of NFPA-13:

- (a) (1) The water supply shall not be required to be added to the standpipe demand as determined from Section 94.2020 of this chapter.

D (b) (2) Where the combined sprinkler system demand and hose stream allowance of Table 11.2.3.1.2 of NFPA-13 exceeds the requirements of Section 94.2020 of this division, this higher demand shall be used.

R (e) (3) For partially sprinklered buildings, the sprinkler demand, not including hose stream allowance, as indicated in Table 11.2.3.1.1 of NFPA-13, shall be added to the requirements given in Section 94.2020 of this chapter.

Justification: Editorial change to keep the proper sequence of numbers and consistency with NFPA Code Sections.

94.2010.52. Section 11.2.3.1.4(4)(i) is amended and added as follows:

11.2.3.1.4(4)(i) Exterior columns under 10 ft² (0.93m²) in total area, formed by studs or wood joist, with no sources of ignition within the column, supporting exterior canopies that are fully protected with a sprinkler system.

A Justification: Amended Section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.53. Section 11.2.3.2.3.1 is amended and added as follows:

11.2.3.2.3.1 Where listed quick-response sprinklers, ~~excluding including extended coverage quick-response sprinklers,~~ are used throughout a system or portion of a system having the same hydraulic design basis, the system area of operation shall be permitted to be reduced without revising the density as indicated in Figure 11.2.3.2.3.1 when all of the following conditions are satisfied:

1. Wet pipe system
2. Light hazard occupancy
3. 20 ft (6.1 m) maximum ceiling height
4. There are no unprotected ceiling pockets as allowed by 8.6.7 and 8.8.7 exceeding 32 ft² (3 m²)

FIGURE 11.2.3.2.3.1 Design Area Reduction for Quick-Response Sprinklers.

Justification: Amended Section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.53. Section 11.2.3.2.3.2 is amended and added to read

11.2.3.2.3.2 The number of sprinklers in the design area shall never be less than seven.

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Justification: Amended section by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.54. ~~26~~ Section ~~44.2.3.8.5-11.3.3.5~~ is amended and added to read:

11.3.3.5 ~~44.2.3.8.5~~ When the water curtain is located in an otherwise un-sprinklered area, the design shall include all the sprinklers in each fire separation area being protected.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.55. Section 12.2.1 is amended and added to read

12.2.1 Except as allowed by section 12.2.2, small hose connections

1 ½ (38mm) shall be provided where the system is not subject to freezing in accordance with 8.17.5 for first-aid-fire-fighting and overhaul operations

Justification: Los Angeles has drought conditions that make more likely to have fires and the City of Los Angeles has always required small hose connections. Furthermore, it is impractical to install hose connections in cold storage facilities due to the fact that the water may freeze in the pipe. In addition, editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.56. ~~27~~ Section ~~45.4.7~~ 23.1.7 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.57. Section 24.1 is amended and added to read

24.1 Approval of Sprinkler Systems and Private Fire Service Mains.

The installing contractor shall do the following:

1. Notify the authority having jurisdiction and the property owner or property owner's authorized representative of the time and date testing will be performed.
2. Perform all required testing (see Section 24.2)
3. Complete and sign the appropriate contractor's material and test certificate(s) (see Figure 24.1)
4. Remove all caps and straps prior to placing the sprinkler system in service

D 5. Upon system acceptance by the authority having jurisdiction a label prescribed by Title 19 California Code of Regulations, Chapter 5 shall be affixed to each system riser.

Justification: Amended by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.58. Section 24.4 is amended and added to read:

R 24.4 Instructions.

The installing contractor shall provide the property owner or the property owner's authorized representative with the following:

A (1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed

(2) NFPA 25, Standard for the Inspection, testing, and maintenance of Water-Based Fire Protection Systems, 2006 California Edition

(3) Title 19, California Code of Regulations, Chapter 5, "Fire Extinguishing Systems".

F Justification: Amended by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.59. Section 24.5.1 is amended and added to read:

T 24.5.1 "Pipe schedule systems shall be provided with a sign indicating that the system was designed and installed as a pipe schedule system and the hazard classification(s) included in the design."

Justification: Added by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2010.60. Section 24.5.2 is amended and added to read:

24.5.2 The sign shall include the following information:

(1) Location of the design area or areas

(2) Discharge densities over the design area or areas.

(3) Required flow and residual pressure demand of the system at the base of the riser

(4) Presence of high piled storage

(5) Maximum height of storage planned

(6) Aisle width planned

(7) Required flow and pressure of the system at the water supply source.

(8) Required flow and pressure of the system at the discharge side of the fire pump where a fire pump is installed.

(9) Type or types and number of sprinklers or nozzles installed including the orifice size, temperature rating, orientation, K-Factor, Sprinkler Identification Number (SIN) for sprinkler heads when applicable and response type.

(10) The minimum discharge flow rate and pressure required from the hydraulically most demanding sprinkler.

(11) The required pressure settings for pressure reducing valves.

(12) For deluge sprinkler systems, the required flow and pressure at the hydraulically most demanding sprinkler or nozzle.

(13) The protection area per sprinkler based on the hydraulic calculations

(14) The edition of NFPA 13 to which the system was designed and installed.

Justification: Amended and added by the Office of the State Fire Marshall (SFM). Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

Sec. 19

Section 94.2013.0 of the Los Angeles Municipal Code is hereby amended to read:

SEC. 94.2013.0. NFPA 13R

NFPA 13R- ~~2002~~ 2010 is adopted by reference with the following exceptions:

Justification: To reflect the latest NFPA Edition adopted by the Office of the State Fire Marshall.

94.2013.1. Section 3.2 is adopted by reference except that the following sections are not adopted:

3.2.2 Authority Having Jurisdiction

3.2.7 Standard

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

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~~2. Section 3.3 is adopted by reference, except that the following sections are not adopted:~~

- ~~3.3.2 Compartment~~
- ~~3.3.6 Residential Occupancy~~
- ~~3.3.8 Sprinkler System~~

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Justification: New definitions in NFPA 13R

94.2013.2. Section 4.1 is added to read:

4.1 Sprinklered Throughout. A building provided with a fire sprinkler system designed and installed in accordance with the requirements of section 94.2013 of this chapter, including its allowable omissions, shall be considered fully sprinklered throughout.

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Justification: Editorial amendment. "This standard" was changed to "Section 94.2013 of this Chapter" to refer to the Los Angeles Municipal Code.

94.2013.3. Section 4.3 is added to read:

4.3 Basic Requirements. The requirements for spacing, location, and position of sprinklers shall be based on the following principals:

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(1) Sprinklers shall be installed throughout the premises.

(2) Sprinklers shall be located so as not to exceed maximum protection area per sprinkler.

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(3) Sprinklers shall be positioned and located so as to provide satisfactory performance with respect to activation time and distribution.

(4) Sprinklers shall be permitted to be omitted from areas specifically allowed by this standard. (see section 6.6).

Justification: Included in Section 94.2004.0 of this Chapter.

94.2013.4. Section 4.5 is not adopted.

Justification: Included in Section 94.2004.0 of this Chapter.

94.2013.5. Section 5.1.4.1 is not adopted.

Justification: Included in Section 94.2004.0 of this Chapter.

94.2013.6. Section 5.2.11 is added to read:

5.2.11 Welded pipe shall be permitted to be used in accordance with the rules of Section 94.2010 of this Chapter.

Justification: Referenced in this Chapter under Section 94.2010. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2013.7. Section 5.2.12.1.3.3 is not adopted.

Justification: This Code is addressed in Section 94.2040.0 of this Chapter.

94.2013.8. Section 5.3 is not adopted.

Justification: This Code is addressed in Section 94.2004 of this Chapter with a specific reference to underground pipe and the California Plumbing Code.

94.2013.9. 3 Section 5.3.3 Section 5.4.3 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter."

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

~~4 Sections 6.3.2.1 and 6.3.2.2 are modified by changing the reference "NFPA 13" to "Section 2010 of this chapter."~~

Justification: This Section has been relocated to Section 94.2013.27

94.2013.10. Section 6.4.4 is not adopted.

Justification: This Code is addressed in Section 94.2013.0, Sub-section 3 and Section 94.2004 of this Chapter.

~~5. Section 6.5.3 is modified by changing the reference "NFPA13" to "Section 2010 of this Chapter."~~

Justification: This Section has been relocated to Section 94.2013.23

~~6 Section 6.5.6 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this chapter."~~

Justification: This Section has been relocated to Section 94.2013.25

~~7 Section 6.6.4.2 is modified to read:~~

~~6.6.4.2. Fire Department Connection. See Section 2020 of this chapter for requirements.~~

Justification: This Section has been relocated to Section 94.2013.14

~~8 Section 6.6.6 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this chapter."~~

Justification: This Section has been relocated to Section 94.2013.15

~~9 Section 6.7.2 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this chapter."~~

Justification: This Section has been relocated to Section 94.2013.21

~~10 Section 6.7.4 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this chapter."~~

Justification: This Section has been relocated to Section 94.2013.22

94.2013.11. ~~44 Section 6.8.3~~ 6.6.3 is modified by changing the reference "NFPA 220" to the "Building Code."

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2013.12. ~~42 Sections 6.8.4 and 6.8.5~~ 6.6.5, 6.6.6 and 6.6.7 are not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2013.13. Section 6.6.7.1 is added to read:

6.6.7.1 Balconies and decks. Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units where the building is of type V construction provided there is a roof or deck above Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors area within the 1 inch (25mm) to 6 inches (152mm) below the structural members and a maximum distance of 14 inches (356mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.

Justification: Added by the Office of the State Fire Marshall (SFM).

94.2013.14. Section 6.11.2 is modified to read:

6.11.2 Fire Department Connection. See Section 94.2020 of this chapter for requirements.

Justification:

1. Section relocated from Section 94.2013.0, Sub-section 7.

2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2013.15. Section 6.13 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter."

Justification:

1. Section relocated from Section 94.2013.0, Sub-section 8.
2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2013.16. Section 6.13 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter"

Justification: Editorial change for consistency with Code language.

94.2013.17. Section 6.14 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter"

Justification: Editorial change for consistency with Code language.

94.2013.18. Section 6.16.3 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter"

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2013.19. Section 7.1.2 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter"

Justification: Editorial change for consistency with Code language

94.2013.20. Section 7.2 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter"

Justification: Editorial change for consistency with Code language

94.2013.21. Section 7.3 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter."

Justification:

1. Section relocated from Section 94.2013.0, Sub-section 9.
2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2013.22. Section 7.4 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter."

Justification:

- 1. Section relocated from Section 94.2013.0, Sub-section 10.
- 2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

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94.2013.23. Section 9.3 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter" and "NFPA 22" to "Section 94.2050 of this chapter."

Justification:

- 1. Section relocated from Section 94.2013.0, Sub-section 5
- 2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

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94.2013.24. Section 9.4 is added modified by changing the reference "NFPA 20" to "Section 94.2030 of this Chapter."

Justification: Editorial change for consistency with Code language

94.2013.25. Section 9.6 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter."

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Justification:

- 1. Section relocated from Section 94.2013.0, Sub-section 6.
- 2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

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94.2013.26. Section 10.1.5 is added to read:

10.1.5 Instructions.

The installing contractor shall provide the property owner or the property owner's authorized representative with the following:

(1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed

(2) NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems 2006 California Edition and Title 19, California Code of Regulations, Chapter 5. (3) Once the system is accepted by the authority having jurisdiction a label as prescribed by Title 19, California Code of Regulations, Chapter 5, shall be affixed to each system riser.

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Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2013.27. Section 10.2.2 is modified by changing the reference "NFPA 13" to "Section 94.2010 of this Chapter."

Justification:

1. Section relocated from Section 94.2013.0, Sub-section 4.
2. Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.
3. Reference to Section 94.2010 of this Chapter.

Sec. 20

Section 94.2014.0 of the Los Angeles Municipal Code hereby amended to read:

SEC. 94.2014.0. NFPA 13D- ~~2002~~ 2010 is adopted by reference with the following exceptions:

Justification: To reflect the new NFPA Standard adopted by the Office of the State Fire Marshall.

94.2014.1 Section 3.2 is adopted by reference except that the following sections are not adopted:

- 3.2.2 Authority Having Jurisdiction
- 3.2.7 Standard

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2014.2. Section 3.3.9 is adopted by reference, except that the following Section is not adopted.

3.3.9.7 Sprinkler System

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

~~3. Section 4.1.2 is modified to read:~~

~~4.1.2 A compartment enclosure is permitted to have openings in walls to an adjoining space if the openings have a minimum lintel depth of 8 inches from the ceiling and the total of openings do not exceed 8 feet in width. A single opening of 36 inches or less is permitted when there are no other openings to adjoining spaces.~~

Justification: Defined in NFPA Standard

94.2014.3. ~~4~~ Section 5.1.2 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2014.4.-5 Section 5.1.3 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2014.5.-6 Section 5.1.4 is added to read:

5.1.4 Fire Department Connections. Fire Department connections for one and two family dwellings shall meet the following requirements:

1. A Fire Department connection shall be provided for any system protecting over 10,000 square feet of habitable space.
2. A single Fire Department connection pipe may be as small as the sprinkler riser, provided the riser is three inches or smaller.
3. The hose inlet fitting may be 1-1/2 inches with 1.5-9 N.H. thread of 2.5-7.5 N.H. standard threads.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2014.6. Section 6.2 is added and modified to read:

6.2. Water Supply Sources. When the requirements of 6.2.2 are met, the following water supply sources shall be considered to be acceptable by this standard:

- (1) A connection to a reliable waterworks system with or without an automatically operated pump.
- (2) An elevated tank.
- (3) A pressure tank designed to American Society of Mechanical Engineers (ASME) standards for a pressure vessel with a reliable pressure source.
- (4) A stored water source with an automatically operated pump.
- (5) A well with a pump of sufficient capacity and pressure to meet the sprinkler demand. The stored water requirement of 6.1.2 or 6.1.3 shall be permitted to be a combination of the water in the well (including the refill rate) plus the water in the holding tank if such tank can supply the sprinkler system.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2014.7. Section 6.2.2 is added to read:

6.2.2 Where a well, pump, and tank or combination thereof is the source of supply for a fire sprinkler system, the water supply shall serve both domestic and fire sprinkler systems, and the following shall be met:

1. A test connection shall be provided downstream of the pump that creates a flow of water equal to the smallest sprinkler on the system. The connection shall return water to the tank.

2. Any disconnecting means for the pump shall be approved.

3. A method for refilling the tank shall be piped to the tank.

4. A method of seeing the water level in the tank shall be provided without having to open the tank.

5. The pump shall not be permitted to sit directly on the floor.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2014.8. Section 6.2.2.1 is added to read:

6.2.2.1 Where a fire sprinkler system is supplied by a stored water source with an automatically operated means of pressurizing the system other than an electric pump, the water supply may serve the sprinkler system only.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2014.9. Section 6.2.4 is added to read:

6.2.4 Where a water supply serves both domestic and fire sprinkler systems, 5 gpm (19 L/min) shall be added to the sprinkler system demand at the point where the systems are connected, to determine the size of common piping and the size of the total water supply requirements where no provision is made to prevent flow into the domestic water system upon operation of a sprinkler.

Justification: Added Section by the Office of the State Fire Marshall (SFM).

94.2014.10. 7 Section 7.5.1 is modified to read:

7.5.1. Listed residential sprinklers shall be used unless another type is permitted by Sections 7.5.3 or 7.5.4.

EXCEPTION: ~~Listed quick response commercial sprinklers may be installed with approval of the authority having jurisdiction, when installed in all areas of the dwelling~~ installed when construction features exist that are outside the scope of residential sprinkler listings and the hydraulic design is in accordance with Section 8.1.2 as set forth in Sub-section 11 of Section 94.2014 of this Chapter.

Justification: Clarification of Code that was previously adopted. Intent of change is to allow enhanced life safety with the use of residential sprinklers in other portions of homes for wall wetting purposes.

94.2014.11 & Section 8.1.2 is modified to read:

Section 8.1.2. Number of Design Sprinklers. The number of design sprinklers shall include all sprinklers within a compartment, up to a maximum of two sprinklers, under a flat, smooth, horizontal ceiling. For compartments containing two or more sprinklers, calculations shall be provided to verify the single operating criteria and the two operating sprinkler criteria.

EXCEPTIONS:

1. Single family dwellings having more than 10,000 square feet of habitable space shall follow the design requirements of Section 94.2013 of this chapter.
2. Attached private garages greater than 1500 square feet shall follow the design requirements of Section 94.2010 of this chapter.
3. When listed quick response sprinklers are utilized within a dwelling, the hydraulic design shall follow the requirements of Section 94.2010 of this chapter.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

94.2014.12. Section 8.1.3.1.2 is not adopted

Justification: Code is addressed in Section.94.2014.9 of this Chapter.

94.2014.13. & Section 8.6.4 of NFPA 13D is not adopted

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-13 Standards.

Sec. 21

Section 94.2020.0 of the Los Angeles Municipal Code is hereby amended to read:

SEC. 94.2020.0 NFPA 14

NFPA 14-~~2003~~-2007 is adopted by reference with the following exceptions, modifications, and additions:

Justification: To reflect the latest NFPA 14 Edition adopted by the SFM

94.2020.1. Sections 1.3. through 1.3.3 are not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.2. Chapter 2 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.3. Sections 3.2 is adopted by reference, except that the following section is not adopted:

3.2.2 Authority Having Jurisdiction.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.4. Section ~~3.3.6 through 3.3.6.2~~ 3.3.3 through 3.3.3.2 are not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.5. Section 4.1.3 is not adopted.

Justification: This Code is addressed in Section 94.2004.0 of this Chapter.

~~5. Section 4.4 is modified to read:~~

~~4.4. Joining of Pipe and Fittings. Joining, hanging, and bracing of pipe and fittings shall be in accordance with Section 94.2010 of this division.~~

Justification: Requirements are now part of the NFPA 14 Standard.

94.2020.6. Section 4.5.1.3 is not adopted.

Justification: This Code is addressed in Section 94.2010.4

94.2020.7. ~~6~~ Section 4.6.4 is modified to read:

4.6.4 Nozzles. Nozzles provided for class II standpipe outlets shall be listed variable fog nozzles.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.8. ~~7~~ Section 4.8.2 including the exception is modified to read:

4.8.2 Each Fire Department connection shall have at least two 2-1/2 inch internal threaded swivel fittings having NH standard threads as specified in NFPA 1963, Standard for Screw Threads and Gaskets for Fire Hose Connections.

The number of Fire Department hose inlets shall be at least as required in Table No. 4.8.2 of this chapter. Fire Department connections shall be equipped with caps to protect against entry of debris into the system.

TABLE 4.8.2
NUMBER OF FIRE DEPARTMENT CONNECTIONS

HEIGHT OF HIGHEST OUTLET ABOVE FIRE DEPARTMENT CONNECTION, FEET	NUMBER OF FIRE DEPARTMENT CONNECTIONS	
	1 or 2 Risers	3 or more Risers
Less than 50	2	2
50 and over	4	6

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.9. 8 Section 5.1.3 is modified to read:

5.1.3 The spacing and location of standpipes and hose connections shall be in accordance with Section 905 of the Building Code.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.10. 9 Section 5.1.4 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.11. 10 Section 5.3.3 is modified to read:

5.3.3 Class III Systems. Class III is a standpipe system directly connected to a water supply and equipped with 2-1/2 inch outlets or 2-1/2 inch and 1-1/2 inch outlets when a 1-1/2 inch hose is required. Hose connections for Class III systems may be made through 2-1/2 hose valves with easily removable 2-1/2 inch by 1-1/2 inch reducers.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.12. 11 Section ~~5.6.2~~ 5.5.2 is modified to read:

~~5.6.2~~ 5.5.2 A valved outlet for a pressure gauge shall be installed on the upstream and downstream sides of every pressure regulating device.

EXCEPTION: Class I and Class III hose outlets.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.13. 42 Section 6.1.2.5 is modified to read:

6.1.2.5 To minimize or prevent pipe breakage where subject to earthquakes, standpipe systems shall be protected in accordance with Section 94.2010 of this chapter.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.14. 43 Section ~~6.2.4.4~~ 6.3.4.1 is added to read:

~~6.2.4.4~~ 6.3.4.1 Valves shall be within six feet six inches of the floor or shall be operable from fixed ladders or clamped tread ladders on risers, or use chains within six feet six inches of the floor connected to valve hand wheels or other suitable means.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

~~14~~ Section ~~6.3.5.3~~ is modified to read:

~~6.3.5.3~~ Fire Department inlets shall supply all Class I and Class III standpipes except for buildings with multiple zones.

~~In buildings which have multiple zones, each zone shall be provided with separate inlet connections.~~

~~Where the Fire Department inlet connection does not serve the entire building, the portions served shall be suitably identified~~

~~The Fire Department connection shall be adequate to supply the required flow and pressure.~~

~~**Exception:** When the risers are at least six inch size and there are at least six Fire Department inlets, the supply shall be considered adequate.~~

Justification: This Section has been relocated to Section 94.2020.16

94.2020.15. Section 6.3.7.1 is modified to read:

6.3.7.1 System water supply valves, isolation control valves, and other valves in fire mains shall be supervised in an approved manner in the open position by one of the following methods:

1. Where a building has a fire alarm system or a sprinkler monitoring system installed, the valve shall be supervised by:

- a. A central station, proprietary, or remote supervising station, or
- b. A local signaling service that initiates an audible signal at a constantly attended location.

2. Where a building does not have a fire alarm system or a sprinkler monitoring system installed, the valve shall be supervised by:

- a. Locking the valves in the open position, or
- b. Sealing of valves and a approved weekly recorded inspection where valves are located within fenced enclosures under the control of the owner.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2020.16. Section 6.4.5.3 is added to read:

6.4.5.3 Fire Department inlets shall supply all Class I and Class III standpipes except for buildings with multiple zones.

In buildings which have multiple zones, each zone shall be provided with separate inlet connections.

Where the Fire Department inlet connection does not serve the entire building, the portions served shall be suitably identified

The Fire Department connection shall be adequate to supply the required flow and pressure.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards. Superseded by Section 7.8.2 and Table 7.8.2.1 of NFPA 14 2007.

94.2020.17. Section 7.2.2 is added and modified to read:

7.2.2. When system pressure-regulating device(s) are used in lieu of providing separate pumps, multiple zones shall be permitted to be supplied by a single pumping system and pressure-regulating device(s) under the following conditions.

(1) Pressure-regulating device(s) shall be permitted to control pressure in the lower division.

(2) A method to isolate the pressure-regulating device(s) shall be provided for maintenance and repair.

(3) Regulating devices shall be arranged so that the failure of any single device does not allow pressure in excess of 175 psi (12.1 bar) to more than two hose connections.

(4) An equally sized bypass around the pressure-regulating device(s), with a normally closed control valve, shall be installed.

(5) Pressure-regulating device(s) shall be installed not more than 7 ft 6 in (2.31 m) above the floor.

(6) The pressure-regulating device shall be provided with inlet and outlet pressure gauges.

(7) The fire department connection(s) shall be connected to the system side of the outlet isolation valve.

(8) The pressure-regulating device shall be provided with a pressure relief valve in accordance with the manufacturers recommendations.

(9) Remote monitoring and supervision for detecting high pressure failure of the pressure-regulating device shall be provided in accordance with NFPA 72, National Fire Alarm Code.

(10) The pumping system shall be adequate when three pumps are out of operation.

Justification: Clarification of Section 94.2020.21, Sub-section 7.9.3 Alternate 1 of this Chapter.

94.2020.18. 45 Section 7.3.4 7.3.1.1 is modified to read:

7.3.4 7.3.1.1 Fire Department Outlets. Fire Department outlets shall be installed so as to be easily accessible for use by the Fire Department. Hose connections and hose stations shall be located not less than three feet or more than five feet above the floor. A wrench clearance on all sides of the outlet shall be provided to insure that a 12-inch long wrench can be used to connect hose to outlet. There shall be at least one-inch clearance around the hose valve handle.

Outlets shall be provided with a listed hose valve protected by a 2-1/2 inch by 1-1/2 inch reducer and 1-1/2 inch cap and attachment chain.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.19. 46 Section 7.3.2 is added and modified to read:

7.3.2 Class I Systems. Class I systems shall be provided with 2 ½ in. (65mm) hose connections in the following locations:

1. At the main floor landing in exit stairways.
2. On each side of the wall adjacent to the exit openings of horizontal exits.
3. In other than covered mall buildings, in each exit passageway at the entrance from the building areas to the passageway.
4. In covered mall buildings, at the entrance to each exit passageway or exit corridor, and at the interior side of public entrances from the exterior to the mall.

5. At the highest landing of stairways with stairway access to a roof, or on roofs with a slope of less than 4 in 12 where stairways do not access the roof.

Justification: This is mandated by the Los Angeles Fire Department (LAFD) to properly operate their fire hose apparatus. This Section is from the 2010 NFPA14. Item Number #1 listed above is the primary change to this Code as mandated by LAFD.

94.2020.20. 47 Section 7.9 is modified to read:

7.9. System Zoning Requirements.

7.9.2. Height Limit. Buildings shall be zoned so that standpipe system risers do not exceed 275 feet in height unless control of the nozzle pressure under both flow and static conditions is attained at each standpipe outlet by the installation of a listed pressure-regulating device and provided further that all of the following three limitations are met:

1. The pressure on the listed pressure-regulating device inlet side is not in excess of the rated working pressure of the listed pressure-regulating device and the remaining portions of the standpipe system are rated for not less than the maximum system pressure.
2. The hose valve outlet pressure is limited as required in Section 7.2.1.2 of NFPA-14.
3. The zone height does not exceed 400 feet.

7.9.3. Zoned systems shall comply with Alternate 1 or 2, below:

1. Alternate 1. The pumping system shall be adequate when three pumps are out of operation.
2. Alternate 2. Design shall comply with the following:
When fire pumps are required, separate fire pumps shall be required to serve each zone. Fire pumps that individually serve separate zones and which are located at the same level may be installed in series. Fire pumps installed in series shall serve each zone independently.

Justification: Clarification and Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

~~7.9.3.1 and 7.9.3.1.1~~ 7.9.3.1 and 7.9.3.2 are not adopted

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

7.9.4. Direct supply piping from the higher-zone fire pump to the higher-zone system piping shall be provided when the fire pump for the higher zone is on the same level as the fire pump serving the lower zone. Two direct supply lines shall be provided to each zone with two or more standpipes. The size of the direct supply piping to each zone shall be not less than the size of the largest standpipe riser served.

Lower-zone standpipe piping may be used to supply the higher zone and shall not be less than the size of the largest standpipe riser of the higher-zone system that is being supplied. The two zones shall be connected by a minimum of two supply pipes of which one shall be automatically providing water to the higher zone from the lower zone. A secondary method of supply is required when a residual pressure of 100 psi cannot be provided.

7.9.4.1 is not adopted.

94.2020.21. 48 Section 7.10.1.3.1.1 is modified to read:

7.10.1.3.1.1 Where the sprinkler system water supply requirement, including the water stream allowance as determined in accordance with Section 2010 of this chapter, exceeds the system demand established by Sections 7.7 and 7.10.1 of NFPA-14, the larger of the two values shall be provided.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.22. 49 Subsections (3) and (5) of Section 9.4.4 9.1.5 are not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.23. 20 Section 9.2.1 s added to read:

9.2.1 Buildings Over 150 Feet High.

1. **Redundancy.** The system shall be adequate when either one pump, one pump driver, one riser or zone pressure regulator is out of operation.

2. **Power.** Pumps shall be either diesel engine or electric motor driven. Electric fire pump motors shall be supplied from normal and the emergency standby power system. At least 750 g.p.m. shall be supplied by an electric motor driven pump.

If water flow requirements call for more than one pump to start, the normal and emergency power shall be sized to run all pumps at the same time. The normal and emergency power system shall have adequate capacity and rating for all loads, including the redundant pump(s) to be operated simultaneously. The controller for each unit of multiple pumps shall incorporate a sequential timing device to prevent any one

driver from starting simultaneously with any other. Failure of a leading driver to start shall not prevent subsequent drivers from starting. Locking out of motors is prohibited.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.24. 24 Section 11.2.3 is added to read:

11.2.3 Flushing the System Risers. Water shall flow from the topmost outlet of each riser until the system is clear of all debris.

11.2.3.1 Roof Outlets. Standpipe systems shall be designed so that all risers can be flushed through outlets located on the roof.

11.2.3.2 Flow. All standpipe risers shall be flushed individually through the roof at residual pressure of at least of at least 65 psi until the system is clear of debris. The flow for Class I and Class III standpipes shall be at least 500 g.p.m. through each riser.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

94.2020.25. 22 Section 11.5.6.3 is added to read:

11.5.6.3 Pressure Regulator Valve Test.

11.5.6.3.1 Test Required. When required by the Department, 2-1/2 inch pressure regulator valves installed on standpipe outlets shall be tested for proper operation at a flow of 300 g.p.m. with a residual pressure of 125psi in the presence of a representative of the Department.

Justification: Climatic due to the City of Los Angeles's dry climate and constant threat of fire danger, this Section is mandated by LAFD to properly operate their fire hose apparatus

11.5.6.3.2 Safety. Test nozzles and other equipment shall be adequately secured so as to eliminate danger to personnel.

11.5.6.3.3. Opening. An accessible 2-1/2 inch capped or plugged test opening shall be installed adjacent to each pressure regulator valve.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

11.5.6.3.4 Drain. The test openings shall drain to a minimum 3-inch drain line constructed and installed as required for fire sprinkler drains. The drains shall not discharge where they may cause damage. Where available, drains shall terminate to the fire water storage tank.

Justification: Clarification of an approved drainage location, and to enhance the State and the City Los Angeles's efforts to conserve water.

11.5.6.3.5 **Interconnection.** The test drain shall either be separate or connect to a fire sprinkler drain to a fire protection tank.

94.2020.26. ~~23~~ Chapter 12 is modified to read:

Chapter 12. Buildings Under Construction.

12.1. **General.** During the construction of a building and until the permanent fire-extinguishing system has been installed and is in service, fire protection shall be provided in accordance with this section.

12.2. **Where required.** Every building four stories or more in height shall be provided with at least one standpipe for use during construction. The standpipes shall be installed when the progress of construction is not more than ~~35~~ 40 feet (10668mm 12.19 m) in height above the lowest level of Fire Department access. The standpipe shall be provided with Fire Department hose connections at accessible locations adjacent to usable stairs and the standpipe outlets shall be located adjacent to those usable stairs. The standpipe systems shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

In each floor there shall be provided a 2½ inch (63.5 mm) valve outlet for Fire Department use. Where construction height requires installation of a Class III standpipe, fire pumps and water main connections shall be provided to serve the standpipe.

Justification: New Building Code relative to height requirement for Standpipe System in buildings under construction.

12.3 **Temporary Standpipes.** Temporary Standpipes may be provided in place of permanent systems if they are designed to furnish a minimum of 500 gallons (1893 L) of water per minute at 50 pounds per square inch (345 kPa) pressure with a standpipe size of at least four inches (102 mm). All pumping equipment sufficient to provide this pressure and volume shall be available at all times when a Class III standpipe system is required.

12.4 **Detailed Requirements.** Standpipe Systems for buildings under construction shall be installed as required for permanent Standpipe Systems

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA-14 Standards.

Sec. 22

Section 94.2030.0 of the Los Angeles Municipal Code is hereby amended to read:

Sec. 94.2030.0. FIRE PUMP AND DRIVERS

D **FIRE PUMPS AND DRIVERS.** Fire pumps, their drivers and associated piping and equipment shall conform to the requirements set forth in NFPA 20-2003 2007 with the following exceptions and modifications:

Justification: Editorial change to reflect the latest Edition of NFPA 20, adopted by SFM.

94.2030.1 Sections 1.4 through 1.4.3 are not adopted

R Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.2 Sections 5.7.1 is modified to read:

A 5.7.1 Fire pumps, equipment used with fire pumping systems, devices and attachments shall be listed. A copy of the manufacturer's certified pump test characteristic curve shall be available for comparison of results of field acceptance tests. The fire pump as installed shall equal the performance as indicated on the manufacturer's certified shop test characteristic curve within the accuracy limits of the test equipment.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

F **94.2030.3** Sections 5.11.1.4 is modified to read:

5.11.1.4 The relief valve shall discharge to an approved location.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

T **94.2030.4** Sections 5.14.2.1 is added to read:

5.14.2.1 **General.** Installation of above-ground suction piping shall conform to the requirements for fire sprinkler piping.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.5 Sections 5.14.4.1 is modified to read:

5.14.4.1 **Pump Bypass.** A full-way pump bypass with check valve shall be connected downstream of the fire pump shutoff valve when available pressure will supply useful protection with the pump off. There shall be two control valves to isolate check valves in each bypass.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.6 Sections 5.14.11 is added to read:

5.14.11 Fire Department Connections. Fire Department connections shall not be connected on the suction side of the fire pump:

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.7 Section 5.17 is modified to read:

5.17. Protection of Piping against Damage Due to Movement. Clearance for the piping shall conform to the requirements of Section 9.3.4 of NFPA 13-2002 2010.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.8 -8 Sections 5.19.2 through 5.19.2.3.3 are not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.9. Section 5.19.3.1.4 is added to read:

5.19.3.1.4 The discharge from the test header shall terminate to the fire water storage tank where available.

Justification: Clarification of an approved drainage location, and to enhance the State and the City Los Angeles's efforts to conserve water.

94.2030.10 9 Sections 5.19.3.5 is added to read:

5.19.3.5 Label. Test headers hose valves shall be labeled "TEST CONNECTIONS"

EXCEPTION: Temporary Fire Pumps and Outlets.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.11 40 Sections 5.24.8 is added to read:

5.24.8 Pressure Maintenance (Jockey or Makeup) pumps. A pressure maintenance pump shall be installed with each fire pump system.

EXCEPTION: Fire pump serving class II standpipes, temporary standpipes and fire pumps serving fire systems in one-and-two-dwelling family dwellings.

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Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.12. Section 5.30.1 (1) is not adopted.

Justification: Backflow prevention is required by DWP rule 16D for all fire water storage tanks.

94.2030.13. 44 Chapter 9 of NFPA 20 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.14. 42 Sections 10.1 through 10.4.8 are not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.15. 43 Sections 10.6 through ~~40.9.5~~ 10.10.11 are not adopted.

Justification: Editorial change for consistency with Code Sections numbering and to reflect the appropriate Section in NFPA 20

94.2030.16. 44 Section 11.4 is modified to read:

11.4 Fuel Supply and Arrangement. Fuel supply and arrangement shall be installed as required by the Los Angeles Fire Code.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2030.17. 45 Sections 11.4.1 through 11.4.8 are not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

Sec. 23

Section 94.2040.0 of the Los Angeles Municipal Code is adopted and amended to read:

SEC. 94.2040.0. UNDERGROUND FIRE PROTECTION PIPING.

This section regulates underground fire protection piping between the City main or other sources of supply and fire hydrants, fire sprinkler risers, and monitor nozzles. Above ground standpipe piping and water spray systems shall conform to applicable code requirements for fire sprinkler piping and to the requirements set forth in NFPA 24-2002 2010 with following exceptions and modifications:

Justification: For consistency with the latest NFPA Edition, adopted by the SFM.

94.2040.1 Chapter 2 is not adopted.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

~~2 Section 5.9.1 is modified to read:~~

~~5.9.1 **General.** Fire Department connections shall comply with the applicable requirements for fire sprinkler systems.~~

Justification: This Section has been relocated to Section 94.2040.7

~~3 Section 5.9.1.5 is added to read:~~

~~5.9.1.5 **Control Valve.** A control valve shall be installed between the City check valve and the point of connection to the fire department connection to the underground piping.~~

Justification: This Section has been relocated to Section 94.2040.9

~~4 Section 7.1.1.1 is modified to read:~~

~~7.1.1.1 **Hydrant Valves.** Each fire hydrant shall be isolated by a listed key type gate valve located at least four feet and not more than ten feet from the fire hydrant. The valve shall not be located in a parking space. No fire sprinkler riser valve shall control any fire hydrant.~~

Justification: This Section has been relocated to Section 94.2040.18

~~5 Section 7.1.5 is modified to read:~~

~~7.1.5 **Water Supplies.** Water supplies for fire hydrant, monitoring nozzle and water spray systems shall be approved by the Fire Department.~~

Justification: This Section has been relocated to Section 94.2040.19

94.2040.2 Section 4.2.1 is added to read.

4.2.1. Installation work shall be done by fully experienced and responsible persons contractors. Contractors shall be appropriately licensed in the State of California to install private fire service mains and their appurtenances.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2040.3 Section 4.2.2 is added to read:

4.2.2. Installation or modification of private fire service mains shall not begin until plans are approved and appropriate permits secured from the authority having jurisdiction.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2040.4 Section 4.2.2.1 is added to read:

4.2.2.1 As approved by the authority having jurisdiction, emergency repair of existing system may start immediately, with plans being submitted to the authority having jurisdiction within 96 hours from the start of the repair work.

Justification: Added Section by the Office of the State Fire Marshall (SFM).

94.2040.5 Section 5.6. is modified to read:

5.6 Pumps. A single automatically controlled fire pump installed in accordance with Section 94.2030 of this chapter shall be an acceptable water supply source.

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2040.6 Section 5.7 is added and modified to read:

5.7 Tanks shall be installed in accordance with "Section 94.2050 of this chapter

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2040.7 Section 5.9.1 is modified to read:

5.9.1 General. Fire Department connections shall comply with the applicable requirements for fire sprinkler systems.

Justification: Section relocated from Section 94.2040.0, Sub-section 2.

94.2040.8 Section 5.9.1.2. is added to read:

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

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2040.9 Section 5.9.1.5 Control Valve. A control valve shall be installed between the City check valve and the point of connection to the fire department connection to the underground piping.

Justification: Section relocated from section 94.2040.0, Sub-section 3.

94.2040.10. Section 5.9.5.1 is added to read.

5.9.5.1. Fire department connections shall be on the street side of buildings and as approved by the authority having jurisdiction.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2040.11. Section 6.1.5 is modified to read.

6.1.5 A non indicating valve such as an underground gate valve with approved roadway, complete with T wrench, and accepted by the authority having jurisdiction shall be permitted to be used as sectional isolation valves in private service mains that do not supply fire sprinklers.

Justification: To avoid conflict with Section 6.7.1.3 of NFPA 13 which requires all valves controlling sprinklers to be indicating valves.

94.2040.12. Section 6.2.11 (5) is not adopted.

Justification: To avoid conflict with Section 6.7.1.3 of NFPA 13 which requires all valves controlling sprinklers to be indicating valves.

94.2040.13. Section 6.3.3.1 is not adopted

Justification: This code is in conflict with Section 6.3.1 which addresses arrangement of post indicating valves.

94.2040.14. Section 6.4.1 is modified by changing the reference "NFPA 13" to "Section 94.2050 of this Chapter."

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2040.15. Section 6.6.2.is added to read.

6.6.2. A sectional valve shall be provided at the following locations:

(1) On each bank where a main crosses a body of water.

(2) Outside the building foundation(s) where a main or a section of a main runs under a building.

Justification: Section added by the Office of the State Fire Marshall (SFM).

94.2040.16. Section 6.6.2.1 through 6.6.2.4 are added to read.

6.6.2.1. Sectional control valves are not required when the fire service main system serves less than six fire appurtenances.

6.6.2.2. Sectional control valves shall be indicating valves in accordance with Section 94.2010 of this chapter

6.6.2.3 Sectional control valves on looped systems shall be located so that no more than five fire appurtenances are affected by shut-down of any single portion of the fire service main. Each fire hydrant, fire sprinkler system riser, and standpipe riser shall be considered a separate fire appurtenance. In-rack sprinkler systems shall not be considered as a separate appurtenance.

6.6.2.4. The number of fire appurtenances between sectional control valves is allowed to be modified by the authority having jurisdiction.

Justification: Added Sections by the Office of the State Fire Marshall (SFM).

94.2040.17. Section 6.6.2.5 is added to read

6.6.2.5 Looped underground systems shall be provided with sectional valves regardless of the number of appurtenances

Justification: Clarification of 6.6.2.4 (geological) in a seismic event, this enables isolation of portions of a system to provide fire protection to areas not affected.

94.2040.18. Section 7.1.1.1 is modified to read:

7.1.1.1 Hydrant Valves. Each fire hydrant shall be isolated by a listed key-type gate valve located at least four feet and not more than ten feet from the fire hydrant. The valve shall not be located in a parking space. No fire sprinkler riser valve shall control any fire hydrant.

Justification: Section relocated from Section 94.2040.0, Sub-section 4.

94.2040.19. Section 7.1.5 is modified to read:

7.1.5 Water Supplies. Water supplies for fire hydrant, monitoring nozzle and water spray systems shall be approved by the Fire Department.

Justification: Section relocated from section 94.2040.0, Sub-section 5.

94.2040.20. Section 10.6.5.is added to read:

10.6.5. Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall not contain mechanical joints.

EXCEPTIONS:

I. Where allowed in accordance with 10.6.2

II. Alternate designs may be utilized where designed by a registered professional engineer and approved by the enforcing agency.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2040.21. Section 10.9.1 is added to read:

10.9.1. Backfill shall be well tamped in layers or puddled under and around pipes to prevent settlement or lateral movement. Backfill shall consist of clean fill sand or pea gravel to a minimum of 6" below and to a minimum of 12" above the pipe and shall contain no ashes cinders, refuse, organic matter, or other corrosive materials. Other backfill materials and methods are permitted where designed by a registered professional engineer and approved by the enforcing agency.

Justification: Amended Section by the Office of the State Fire Marshall (SFM).

94.2040.22. Section 10.10.2.2.5 is added to read:

10.10.2.2.5 When permitted by the authority having jurisdiction and required for safety measures presented by the hazards of open trenches, the pipe and joints shall be permitted to be backfilled, provided the installing contractor owner takes the responsibility for locating and correcting leakage.

Justification: Language has been added for clarification. (Geological) to ensure that only listed and approved products are installed.

94.2040.23. Section 12.1 is added to read:

12.1 General Above ground pipe and fittings shall comply with the applicable Section 94.2010 of this chapter that address pipe, fittings, joining methods, hangers and installation

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2040.24. Section 12.2.5 is added to read:

12.2.5 To minimize or prevent breakage where subject to earthquakes, above ground pipe shall be protected in accordance with the seismic requirements of Section 94.2010 of this chapter

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

94.2040.25. Section 12.2.6 is added to read:

12.2.6. Mains that pass through walls, floors, and ceilings shall be provided with clearances in accordance with Section 94.2010 of this chapter

Justification: Editorial change to maintain the proper sequence of numbers in accordance with Sections of the Plumbing Code and NFPA Standards.

Sec. 24

Section 94.2060.1.3 of the Los Angeles Municipal Code is hereby amended to read:

94.2060.1.3. The tank shall be supplied from the City water main via a fill line. The fill line shall be sized to replenish the water in the tank at a rate equal to, or greater than, the required fire pump capacity. The fill line shall be a minimum of two inches in diameter and ~~may have~~ shall not exceed multiple a maximum of four inlets into the tank. Each fill line inlet shall be provided with a manual shut off valve in the open position as well as an automatic valve. The fill line bypass shall be provided around all fill lines with a shut off valve that is normally closed. Means shall be provided to flow test the automatic fill lines.

An approved tank-fill line connected to the Fire Department connection shall also be installed. These fill lines shall have listed shutoff valves that are normally closed. The tank need not be on the roof.

For systems with multiple fill lines, the over flow system may be designed based on the failure of the largest fill valve serving the tank.

Justification: Clarification to minimize number of devices where potential failure could occur.