

ORDINANCE NO. 4186

AN ORDINANCE OF THE CITY OF RICHARDSON, TEXAS, AMENDING THE CODE OF ORDINANCES OF THE CITY OF RICHARDSON, ADOPTING THE 2015 EDITION OF THE INTERNATIONAL FIRE CODE, INCLUDING APPENDICES A, AND D THROUGH G, AND AMENDMENTS THERETO BY AMENDING CHAPTER 8, ARTICLE II, SECTIONS 8-27, 8-28, AND 8-29(b); PROVIDING A REPEALING CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED TWO THOUSAND DOLLARS (\$2,000.00) FOR EACH OFFENSE; AND PROVIDING FOR AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF RICHARDSON, TEXAS:

SECTION 1. That the Code of Ordinances of the City of Richardson, Texas, be and the same is hereby amended by amending Chapter 8, Article II, Sections 8-27, 8-28, and 8-29(b) of the Code of Ordinances adopting the 2015 Edition of the International Fire Code, including Appendices A, and D through G of the 2015 Edition of the International Fire Code, published by the International Fire Code Institute and the International Conference of Building Officials, and amendments thereto to read as follows:

“ARTICLE II. – FIRE CODE

Sec. 8-26. – Short title.

This article shall be known as the “Richardson Fire Code” and is to be cited as such.

Sec. 8.27. – Adopted.

There is hereby adopted by the city the 2015 Edition of the International Fire Code, including Appendices A, and D through G of the 2015 Edition of the International Fire Code, published by the International Fire Code Institute and the International Conference of Building Officials, being particularly the 2015 Edition thereof and the whole thereof, save and except such portions as are hereinafter deleted, modified or amended, of which code and standard copies are filed in the office of the city secretary.

Sec. 8-28. – Amendments.

The following sections of the International Fire Code, 2015 Edition, are hereby amended to read as follows:

(1) The following subsection of Section 102.1 is amended to read as follows:

3. Existing structures, facilities, and conditions when required in Chapter 11 or in specific sections of this code.

(2) The following subsection of Section 102.7 is amended to read as follows:

102.7 Referenced codes and standards.

The codes and standards referenced in this code shall be those that are listed in Chapter 80, except that the referenced NFPA standards shall be the latest effective editions, superseding all previous editions, and such codes and standards shall be considered to be part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

102.7.1 Conflicts.

Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.7.2 Provisions in referenced codes and standards.

Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

(3) The following subsection of Section 105.3.3 is amended to read as follows:

105.3.3 Occupancy Prohibited before Approval.

The building or structure shall not be occupied prior to the *fire code official* issuing a permit, when required, and/or conducting associated inspections indicating the applicable provisions of this code have been met.

(4) The following Section 105.7.19 is added to read as follows:

105.7.19 Security Gates Across Fire Lanes.

A construction permit is required for the installation of security gates across a fire apparatus access road.

(5) The following Section 109.4 is amended to read as follows:

109.4 Violation penalties.

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than Two Thousand Dollars (\$2,000.00). Each day that a violation continues after due notice has been served shall be deemed a separate offense.

- (6) The following definitions in Section 202, General Definitions, are amended or added to read as follows:

ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of providing identification of each individual alarm-initiating device. The identification shall be in plain English and as descriptive as possible to specifically identify the location of the device in alarm. The system shall have the capability of alarm verification.

ANALOG INTELLIGENT ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of calculating a change in value by directly measurable quantities (voltage, resistance, etc.) at the sensing point. The physical analog may be conducted at the sensing point or at the main control panel. The system shall be capable of compensating for long-term changes in sensor response while maintaining a constant sensitivity. The compensation shall have a preset point at which a detector maintenance signal shall be transmitted to the control panel. The sensor shall remain capable of detecting and transmitting an alarm while in maintenance alert.

DEFEND IN PLACE. A method of emergency response that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves remaining in place, relocating within the building, or both, without evacuating the building.

FIRE WATCH. A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals or standby personnel when required by the *fire code official*, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

FIREWORKS. Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, *deflagration*, *detonation*, and/or activated by ignition with a match or other heat producing device that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein.

Fireworks, 1.4G. Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion. Such 1.4G fireworks which comply with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR Parts 1500 and 1507, are not explosive materials for the purpose of this code.

Fireworks, 1.3G. Large fireworks devices, which are explosive materials, intended for use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition and other display pieces which exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as Fireworks, UN 0335 by the DOTn.

HIGH-PILED COMBUSTIBLE STORAGE: add a second paragraph to read as follows:

Any building classified as a group S Occupancy or Speculative Building exceeding 6,000 sq. ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

SELF-SERVICE STORAGE FACILITY. Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

STANDBY PERSONNEL. Qualified fire service personnel, *approved* by the Fire Chief. When utilized, the number required shall be as directed by the Fire Chief. Charges for utilization shall be as normally calculated by the jurisdiction.

UPGRADED OR REPLACED FIRE ALARM SYSTEM. A fire alarm system that is upgraded or replaced includes, but is not limited to the following:

- Replacing one single board or fire alarm control unit component with a newer model;
- Installing a new fire alarm control unit in addition to or in place of an existing one;
- Conversion from a horn system to an emergency voice/alarm communication system;
- Conversion from a conventional system to one that utilizes addressable or analog devices.

The following are not considered an upgrade or replacement:

- Firmware updates;
- Software updates;
- Replacing boards of the same model with chips utilizing the same or newer firmware.

(7) The following Section 307.1.1 is amended to read as follows:

307.1.1 Prohibited Open Burning. Open burning that is offensive or objectionable because of smoke emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

Exception: Prescribed burning for the purpose of reducing the impact of wildland fire when authorized by the *fire code official*.

(8) The following Section 307.3 is amended to read as follows:

307.3 Extinguishment Authority. The *fire code official* is authorized to order the extinguishment by the permit holder, another person responsible or the fire department of open burning that creates or adds to a hazardous or objectionable situation.

(9) The following Section 307.4 is amended to read as follows:

307.4 Location. The location for open burning shall not be less than 300 feet (91 440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 300 feet (91 440 mm) of any structure.

Exceptions:

1. Fires in *approved* containers that are not less than 15 feet (4572 mm) from a structure.
2. The minimum required distance from a structure shall be 25 feet (7620 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.

(10) The following Section 307.4 is amended by adding Section 307.4.4:

307.4.4 Permanent Outdoor Firepit. Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 10 feet of a structure or combustible material.

Exception: Permanently installed outdoor fireplaces constructed in accordance with the International Building Code.

(11) The following Section 308.1.4 is amended to read as follows:

308.1.4 Open-flame Cooking Devices. Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be located or used on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 lbs (5 containers).
2. Where buildings, balconies and decks are protected by an *approved automatic sprinkler system*, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity], with an aggregate LP-gas capacity not to exceed 40 lbs (2 containers).

(12) The following Section 308.1.6.2 is amended to read as follows:

308.1.6.2 Portable fueled open-flame devices. Portable open-flame devices fueled by flammable or combustible gases or liquids shall be enclosed or installed in such a manner as to prevent the flame from contacting combustible material.

Exceptions:

1. LP-gas-fueled devices used for sweating pipe joints or removing paint in accordance with Chapter 61.
2. Cutting and welding operations in accordance with Chapter 35.
3. Torches or flame-producing devices in accordance with Section 308.1.3.
4. Candles and open-flame decorative devices in accordance with Section 308.3.

(13) The following Section 308.1.6.3 is amended to read as follows:

308.1.6.3 Sky Lanterns. A person shall not release or cause to be released an unmanned free-floating devices containing an open flame or other heat source, such as but not limited to a sky lantern.

(14) The following Section 311.5 is amended to read as follows:

311.5 Placards. The *fire code official* is authorized to require marking of any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards, as required by Section 311.5.1 through 311.5.5.

(15) The following Section 403.5 is amended to read as follows:

403.5 Group E Occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. A diagram depicting two evacuation routes shall be posted in a conspicuous location in each classroom. Group E occupancies shall also comply with Sections 403.5.1 through 403.5.3.

(16) The following Section 404.2.2 is amended by adding Number 4.10 to read as follows:

404.2.2 Fire safety plans. Fire safety plans shall include the following:

1. The procedure for reporting a fire or other emergency.
2. The life safety strategy including the following:
 - 2.1. Procedures for notifying occupants, including areas with a private mode alarm system.
 - 2.2. Procedures for occupants under a defend-in-place response.
 - 2.3. Procedures for evacuating occupants, including those who need evacuation assistance.
3. Site plans indicating the following:

- 3.1. The occupancy assembly point.
 - 3.2. The locations of fire hydrants.
 - 3.3. The normal routes of fire department vehicle access.
- 4. Floor plans identifying the locations of the following:
 - 4.1. Exits.
 - 4.2. Primary evacuation routes.
 - 4.3. Secondary evacuation routes.
 - 4.4. Accessible egress routes.
 - 4.4.1. Areas of refuge.
 - 4.4.2. Exterior areas for assisted rescue.
 - 4.5. Refuge areas associated with smoke barriers and horizontal exits.
 - 4.6. Manual fire alarm boxes.
 - 4.7. Portable fire extinguishers.
 - 4.8. Occupant-use hose stations.
 - 4.9. Fire alarm annunciators and controls.
 - 4.10. Fire extinguishing system controls.
 - 5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
 - 6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
 - 7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

(17) The following Section 405.4 is amended to read as follows:

405.4 Time. The *fire code official* may require an evacuation drill at any time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

(18) The following Section 501.4 is amended to read as follows:

501.4 Timing of Installation. When fire apparatus access roads, or a water supply for fire protection, are required to be installed for any structure or development they shall be installed, tested, and *approved* prior to the time of which construction has progressed beyond completion of the foundation of any structure.

(19) The following Section 503.1.1 is amended to read as follows:

503.1.1 Buildings and facilities. *Approved* fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of

the exterior walls of the first story of the building as measured by an *approved* route around the exterior of the building or facility. Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten feet (10') wide unobstructed pathway around the external walls of the structure.

Exceptions Remain

(20) The following Section 503.2.1 is amended to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7315 mm), exclusive of shoulders, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4267 mm).

(21) The following Section 503.2.2 is amended to read as follows:

503.2.2 Authority. The *fire code official* shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

(22) The following Section 503.2.3 is amended to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support imposed loads of 80,000 lbs. for fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

(23) The following Section 503.3 is amended to read as follows:

503.3 Marking. Striping, signs, or other markings, when *approved* by the *fire code official*, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

(1) Striping – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6") in width to show the boundaries of the lane. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in four inch (4") white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.

(2) Signs – Signs shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high. Signs shall be painted on a white background with letters and borders in red, using not less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall be spaced not more than fifty feet (50') apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as *approved* by the Fire Chief.

(24) The following Section 503.4 is amended to read as follows:

503.4 Obstruction of Fire Apparatus Access Roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

(25) The following Section 505.1 is amended to read as follows:

505.1 Address Identification. New and existing buildings shall be provided with *approved* address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the *fire code official*, address numbers shall be provided in additional *approved* locations to facilitate emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with *approved* 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other *approved* means shall be used to identify the structure. Numerals or addresses shall be posted on a minimum 20 inch (508 mm) by 30 inch (762 mm) background on border. Address identification shall be maintained.

Exception: R-3 Single Family occupancies shall have *approved* numerals of a minimum 3 ½ inches (88.9 mm) in height and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

(26) The following Section 507.4 is amended to read as follows:

507.4 Water Supply Test Date and Information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 “Recommended Practice for Fire Flow Testing and Marking of Hydrants” and within one year of sprinkler plan submittal. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. On new systems, or whenever hydraulic calculations are necessary, plan submittals shall be accompanied by a copy of the original, City of Richardson waterflow test report, or as *approved* by the *fire code official*. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The designer must design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard. See Section 903.3.5 for additional design requirements.

(27) The following Section 507.5.4 is amended to read as follows:

507.5.4 Obstruction. A five (5) foot, unobstructed access to and around fire hydrants shall be maintained at all times. Posts, fences, vehicles, growth, trash, storage and other materials or

objects shall not be placed or kept near fire hydrants, fire department connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

(28) The following Section 509.1 is amended by adding Section 509.1.2 to read as follows:

509.1.2 Sign Requirements. Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 2 inches (50.8 mm) when located inside a building and 4 inches (101.6 mm) when located outside, or as *approved* by the *fire code official*. The letters shall be of a color that contrasts with the background.

(29) The following Section 603.3.2.1 is amended to read as follows:

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III combustible liquid shall be permitted in a building. The aggregate capacity of all such tanks shall not exceed 660 gallons (2498 L).

Exception: The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) in accordance with all requirements of Chapter 57.

(30) The following Section 603.3.2.2 is amended to read as follows:

603.3.2.2 Restricted Use and Connection. Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

(31) The following Section 605.5 is amended to read as follows:

605.5 Extension Cords. Extension cords and flexible cords shall not be a substitute for permanent wiring. Extension cords and flexible cords shall not be affixed to structures, extended through walls, ceilings or floors, or under doors or floor coverings, nor shall such cords be subject to environmental damage or physical impact. Extension cords shall be used only with portable appliances. Multi-plug extension cords with lamp-type cords are not *approved* for any commercial application, including holiday decorations.

605.5.1 Power supply. Extension cords shall be plugged directly into an *approved* receptacle, power tap or multiplug adapter and, except for *approved* multiplug extension cords, shall serve only one portable appliance.

605.5.2 Ampacity. The ampacity of the extension cords shall be not less than the rated capacity of the portable appliance supplied by the cord.

605.5.3 Maintenance. Extension cords shall be maintained in good condition without splices, deterioration or damage.

605.5.4 Grounding. Extension cords shall be grounded where serving grounded portable appliances.

(32) The following Sections 807.5.2.2 and 807.5.2.3 are amended to read as follows:

807.5.2.2 Artwork in Corridors. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area. Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings, and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or shall be noncombustible.

Exception: Artwork and materials in corridors protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

807.5.2.3 Artwork in Classrooms. Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or shall be noncombustible.

(33) The following Sections 807.5.5.2 and 807.5.5.3 are amended to read as follows:

807.5.5.2 Artwork in Corridors. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area. Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or shall be noncombustible.

Exception: Artwork and materials in corridors protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

807.5.5.3 Artwork in Classrooms. Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or shall be noncombustible.

(34) The following Section 901.6.1 is amended by adding Section 901.6.1.1 to read as follows:

901.6.1.1 Standpipe Testing. Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed when foreign material is present and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as *approved* by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criterion at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with *approved* caps, the contractor shall install such caps for all FDC's as required by the *fire code official*.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.
7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be discharged outside the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the *fire code official* for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an *approved* cap and chain when approval is given to remove hose by the *fire code official*.

(35) The following Section 901.6.3 is amended by adding Section 901.6.3 to read as follows:

901.6.3 False Alarms and Nuisance Alarms. False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

(36) The following Section 901.7 is amended to read as follows:

901.7 Systems Out of Service. Where a required *fire protection system* is out of service or in the event of an excessive number of activations, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated or an *approved fire watch* shall be provided for all occupants left unprotected by the shut down until the *fire protection system* has been returned to service.

Where utilized, fire watches shall be provided with not less than one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

901.7.1 through 901.7.6 remain unchanged.

(37) The following Section 901.8.2 is amended to read as follows:

901.8.2 Removal of Occupant-use Hose Lines. The *fire code official* is authorized to permit the removal of occupant-use hose lines and hose valves where all of the following conditions exist:

1. The hose line(s) would not be utilized by trained personnel or the fire department;
2. If the occupant-use hose lines are removed, but the hose valves are required to remain per the *fire code official*, such shall be compatible with local fire department fittings.

(38) The following Section 903.1.1 is amended to read as follows:

903.1.1 Alternative Protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in addition to automatic sprinkler protection where recognized by the applicable standard or as *approved* by the *fire code official*.

(39) The following Section 903.2 is amended to read as follows:

903.2 Where required. Approved *automatic sprinkler systems* in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine

room. Signage shall be provided at the entry doors to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

Sections 903.2.1 through 903.2.8 remain unchanged.

(40) The following Section 903.2.9 is amended by adding Section 903.2.9.3 to read as follows:

903.2.9.3 Self-Service Storage Facility. An *automatic sprinkler system* shall be installed throughout all self-service storage facilities.

903.2.11.9 Buildings Over 5,000 sq. ft. An *automatic sprinkler system* shall be installed throughout all buildings with a building area 5,000 sq. ft. or greater and in all existing buildings that are enlarged to be 5,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages in compliance with Section 406.5 of the *International Building Code*.

(41) The following Section 903.3.1.1.1 is amended to read as follows:

903.3.1.1.1 Exempt Locations. When *approved* by the *fire code official*, automatic sprinklers shall not be required in the following rooms or areas where such ...*{text unchanged}*... because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when *approved* by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. Elevator machine rooms, machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. {Delete.}
6. {Delete.}

(42) The following Section 903.3.1.2.3 is added to read as follows:

Section 903.3.1.2.3 Attics and Attached Garages. Sprinkler protection is required in attic spaces of buildings two or more stories in height, in accordance with NFPA 13 and/or NFPA 13R requirements, and attached garages.

(43) The following Section 903.3.1.4 is added to read as follows:

903.3.1.4 Freeze protection. Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

903.3.1.4.1 Attics. Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

903.3.1.4.2 Heat trace/insulation. Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

(44) The following Section 903.3.5 is amended to read as follows:

903.3.5 Water Supplies. Water supplies for *automatic sprinkler systems* shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section, TCEQ Rules, and the *International Plumbing Code*. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as *approved by the fire code official*.

Water supplies for such systems shall be provided in conformance with the respective standards; however, every water-based fire protection system shall be designed with a minimum 10 psi safety factor. See Section 507.4 for additional design requirements.

(45) The following Section 903.4 is amended to read as follows:

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

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings.

2. Limited area sprinkler systems in accordance with Section 903.3.8.
3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of constant water flow between 45-60 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(46) The following Section 903.4.2 is amended by adding second paragraph to read as follows:

903.4.2 Alarms. An approved audible device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by waterflow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating. The device shall be located on the exterior of the building, in an *approved* location, to identify the primary emergency access to the fire sprinkler riser room, or as otherwise *approved*.

(47) The following Section 903.4.4 is added to read as follows:

903.4.4 Group R-2 Riser Security. Fire sprinkler riser room access doors of group R-2 buildings shall be secured to prevent unauthorized access.

(48) The following Section 903.4.5 is added to read as follows:

903.4.5 Dedicated Function Fire Alarm System [“Sprinkler Waterflow and Supervisory System”] Control Panel Location. In fire sprinklered buildings, the dedicated function fire alarm system [“sprinkler waterflow and supervisory system”] control panel shall be located at the main fire sprinkler riser room, unless otherwise *approved*. A remote annunciator may also be required to facilitate Fire Department response.

(49) The following Section 904.3.5 is amended to read as follows:

904.3.5 Monitoring. Where a building fire alarm system, or a “sprinkler waterflow and supervisory system”, is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm system, or “sprinkler waterflow and supervisory system”.

(50) The following Section 905.2 is amended to read as follows:

905.2 Installation Standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

(51) The following Section 905.3 is amended by adding Section 905.3.9 and exception to read as follows:

905.3.9 Buildings Exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building’s interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
2. R-2 occupancies of four stories or less in height having no interior corridors.

(52) The following Section 905.4 is amended to read as follows:

905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise *approved* by the *fire code official*.
2. On each side of the wall adjacent to the exit opening of a horizontal exit.

Exception: Where floor areas adjacent to a horizontal exit are reachable from an interior exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480mm) of hose, a hose connection shall not be required at the horizontal exit.

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to a horizontal exit are reachable from an interior exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal exit.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe, unless otherwise *approved*, shall be provided with a two-way hose connection located on the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.
6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise *approved* by the *fire code official*.

905.4.3 Identification and clearance. A minimum 36-inch clear width shall be provided in front of standpipe hose connections, and shall extend from the centered connection to the aisle or driveway from which it can be accessed. The clear width shall be permanently marked in an approved manner, by red chevron on contrasting background on the finished floor surface. An approved method to prevent obstruction of the marked area shall be provided. Vehicle impact protection complying with Section 312 shall be provided in garages and other locations where vehicles are operated.

Standpipe hose valve connection locations shall be clearly identified in the following manner:

1. When the connection is on or adjacent to a column, an 18-inch red band shall mark all visible sides of the column. The band shall be as high as practical, but no more than 10-feet above the finished floor; or,
2. When the connection is on a wall the pipe shall be painted red from floor to ceiling, or minimum 10-feet high, whichever is less; or,
3. Where the fire code official determines that additional or substitute markings are necessary to clearly indicate standpipe hose valve connection locations, the fire code official may require additional signs and/or markings.

Exception: Standpipe hose valve connections in stairs and in interior corridors of commercial and residential occupancies, when approved by the fire code official.

(53) The following Section 905.9 is amended by adding a second paragraph after the exceptions to read as follows:

905.9 Valve supervision. Valves controlling water supplies shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section 903.4. Where a fire alarm system is provided, a signal shall be transmitted to the control unit.

Exceptions:

1. Valves to underground key or hub valves in roadway boxes provided by the municipality or public utility do not require supervision.
2. Valves locked in the normal position and inspected as provided in this code in buildings not equipped with a fire alarm system.

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of constant water flow between 45-60 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(54) The following Section 907.1.4 is added to read as follows:

907.1.4 Design Standards. Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

(55) The following Section 907.1.5 is added to read as follows:

907.1.5 Fire Alarm Control Panel Location. In fire sprinklered buildings, the fire alarm control panel shall be located at the main fire sprinkler riser room, unless otherwise *approved*. A remote annunciator may also be required to facilitate Fire Department response.

(56) The following Section 907.2.1 is amended to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section

903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Activation of fire alarm notification appliances shall stop any conflicting or confusing sounds and visual distractions.

(57) The following Section 907.2.3 is amended to read as follows:

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An *approved* smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an occupant load of less than 30 when provided with an *approved automatic sprinkler system*.
 - 1.1. Residential in-home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2½ or less years of age, see Section 907.2.6.)
2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
 - 3.1. Interior corridors are protected by smoke detectors.
 - 3.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
 - 3.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.

4. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
 - 4.1 The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
 - 4.2 The emergency voice/alarm communication system will activate on sprinkler water flow.
 - 4.3 Manual activation is provided from a normally occupied location.

(58) The following Section 907.4.2 is amended by adding Section 907.4.2.7 to read as follows:

907.4.2.7 Type. Manual alarm initiating devices shall be an *approved* double action type.

(59) The following Section 907.5.2.3 is amended to read as follows:

907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.3.

Exceptions:

1. When approved by the fire code official, visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in exits as defined in Chapter 2.
3. Visible alarm notification appliances shall not be required in elevator cars.
4. Visual alarm notification appliances are not required in critical care areas of Group I-2 Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.

(60) The following Section 907.6.1 is amended by adding Section 907.6.1.1 to read as follows:

907.6.1.1 Wiring Installation. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may

be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

(61) The following Section 907.6.3 is amended by deleting all four Exceptions.

(62) The following Section 907.6.6 is amended by adding sentence at end of first paragraph to read as follows:

907.6.6 Monitoring. Fire alarm systems required by this chapter or by the International Building Code shall be monitored by an approved supervising station in accordance with NFPA 72. See 907.6.3 for the required information transmitted to the supervising station.

Exception: Monitoring by a supervising station is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.11.
2. Smoke detectors in Group I-3 occupancies.
3. Automatic sprinkler systems in one- and two-family dwellings.

907.6.6.1 Automatic telephone-dialing devices. Automatic telephone-dialing devices used to transmit an emergency alarm shall not be connected to any fire department telephone number unless approved by the fire chief.

907.6.6.2 Termination of monitoring service. Termination of fire alarm monitoring services shall be in accordance with Section 901.9.

(63) The following Section 910.3 is amended by adding Section 910.3.4 to read as follows:

910.3 Smoke and heat vents. The design and installation of smoke and heat vents shall be in accordance with Sections 910.3.1 through 910.3.3.

910.3.1 Listing and labeling. Smoke and heat vents shall be listed and labeled to indicate compliance with UL 793 or FM 4430.

910.3.2 Smoke and heat vent locations. Smoke and heat vents shall be located 20 feet (6096 mm) or more from adjacent lot lines and fire walls and 10 feet (3048 mm) or more from fire barriers. Vents shall be uniformly located within the roof in the areas of the building where the vents are required to be installed by Section 910.2, with consideration given to roof pitch, sprinkler location and structural members.

910.3.3 Smoke and heat vents area. The required aggregate area of smoke and heat vents shall be calculated as follows:

For buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1:

$$A_{VR} = V/9000$$

where:

A_{VR} = The required aggregate vent area (ft²).

V = Volume (ft³) of the area that requires smoke removal.

For unsprinklered buildings:

$$A_{VR} = A_{FA}/50 \quad \text{(Equation 9-4)}$$

where:

A_{VR} = The required aggregate vent area (ft²).

A_{FA} = The area of the floor in the area that requires smoke removal.

910.3.4 Vent Operation. Smoke and heat vents shall be capable of being operated by *approved* automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

910.3.4.1 Sprinklered buildings. Where installed in buildings equipped with an *approved automatic sprinkler system*, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

Exception: Manual only systems per Section 910.2.

910.3.4.2 Nonsprinklered Buildings. Where installed in buildings not equipped with an *approved automatic sprinkler system*, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Listed gravity-operated drop out vents.

(64) The following Section 910.4.3.1 is amended to read as follows:

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m² per 0.4719 m³/s) of smoke exhaust.

(65) The following Section 912.2 is amended by adding Section 912.2.3 to read as follows:

912.2 Location. With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be approved by the fire chief.

912.2.1 Visible location. Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire chief.

912.2.2 Existing buildings. On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters “FDC” not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire code official.

912.2.3 Hydrant Distance. An *approved* fire hydrant shall be located between 35 and 135 feet of the fire department connection, measured along an *approved* route [as the fire hose is laid] along an unobstructed path.

- (66) The following Section 913.2, subsection 913.2.1 is amended by adding second paragraph and exception to read as follows:

913.2 Protection against interruption of service. The fire pump, driver and controller shall be protected in accordance with NFPA 20 against possible interruption of service through damage caused by explosion, fire, flood, earthquake, rodents, insects, windstorm, freezing, vandalism and other adverse conditions.

913.2.1 Protection of fire pump rooms. Rooms where fire pumps are located shall be separated from all other areas of the building in accordance with Section 913.2.1 of the International Building Code.

When located on the ground level, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as *approved* by the *fire code official*. Access keys shall be provided in the key box as required by Section 506.1.

913.2.2 Circuits supplying fire pumps. Cables used for survivability of circuits supplying fire pumps shall be listed in accordance with UL 2196. Electrical circuit protective systems shall be installed in accordance with their listing requirements.

- (67) The following Section 914.3.1.2 is amended to read as follows:

914.3.1.2 Water Supply to required Fire Pumps. In buildings that are more than 420 feet (128 m) in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located along different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through no fewer than one of the connections.

(68) The following Section 1103.5 is amended by adding Section 1103.5.1 to read as follows:

1103.5.1 Spray Booths and Rooms. Existing spray booths and spray rooms shall be protected by an *approved* automatic fire-extinguishing system in accordance with Section 2404.

(69) The following Section 1103.7 is amended by adding Section 1103.7.8 and 1103.7.8.1 to read as follows:

1103.7.8 Fire Alarm System Design Standards. Where an existing fire alarm system is upgraded or replaced, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke and/or heat detectors shall have analog initiating devices.

Exception: Existing systems need not comply unless the total building, or fire alarm system, remodel or expansion exceeds 30% of the building. When cumulative building, or fire alarm system, remodel or expansion initiated after the date of original fire alarm panel installation exceeds 50% of the building, or fire alarm system, the fire alarm system must comply within 18 months of permit application.

1103.7.8.1 Communication requirements. Refer to Section 907.6.6 for applicable requirements.

(70) The following Section 2304.1 is amended to read as follows:

2304.1 Supervision of Dispensing. The dispensing of fuel at motor fuel-dispensing facilities shall be in accordance with the following:

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2304.3.

At any time the qualified attendant of item Number 1 or 2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2304.3.

(71) Section 2401.2 is deleted.

(72) The following Section 5601.1.3 is amended to read as follows:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling, and use of fireworks are prohibited.

Exceptions:

1. Only when *approved* for fireworks displays, storage, and handling of fireworks as allowed in Section 5604 and 5608.
2. The use of fireworks for approved fireworks displays as allowed in Section 5608.

{Delete remainder of text.}

(73) The following Section 5601.1.4 is amended to read as follows:

5601.1.4 Rocketry. The use of model and high-power rockets shall not be allowed within the jurisdiction of the City of Richardson. The storage and handling of model and high-power rockets shall comply with the requirements of NFPA 1122, NFPA 1125 and NFPA 1127.

(74) The following Section 5703.6 is amended by adding a sentence to read as follows:

5703.6 Piping Systems. Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with Sections 5703.6.1 through 5703.6.11. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

{Subsections unchanged}

(75) The following Section 5704.2.9.5 is amended by amending Section 5704.2.9.5 and by adding Section 5704.2.9.5.3 to read as follows:

5704.2.9.5 Above-ground Tanks Inside of Buildings. Above-ground tanks inside of buildings shall comply with Section 5704.2.9.5.1 through 5704.2.9.5.3.

5704.2.9.5.1 Overfill prevention. Above-ground tanks storing Class I, II and IIIA liquids inside buildings shall be equipped with a device or other means to prevent overflow into the building including, but not limited to: a float valve; a preset meter on the fill line; a valve actuated by the weight of the tank's contents; a low-head pump that is incapable of producing overflow; or a liquid-tight overflow pipe not less than one pipe size larger than the fill pipe and discharging by gravity back to the outside source of liquid or to an approved location. Tanks containing Class IIIB liquids and connected to fuel-burning

equipment shall be provided with a means to prevent overflow into buildings in accordance with Section 5704.2.7.5.8.

5704.2.9.5.2 Fill pipe connections. Fill pipe connections for tanks storing Class I, II and IIIA liquids and Class IIIB liquids connected to fuel-burning equipment shall be in accordance with Section 5704.2.9.7.6.

5704.2.9.5.3 Combustible Liquid Storage Tanks Inside of Buildings. The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with Section 5704.2.9.7 when all of the following conditions are met:

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a room protected by an *automatic sprinkler system* complying with Section 903.3.1.1; and
4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an *approved* closed piping system.

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in Table 5003.1.1(1), and such tanks shall not be required to be located in a control area. Such tanks shall not be located more than two stories below grade.

(76) The following Section 5704.2.11.4 is amended by adding a sentence to read as follows:

5704.2.11.4 Leak Prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.4.1 through 5704.2.11.4.3. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

(77) The following Section 5704.2.11.4.2 is amended to read as follows:

5704.2.11.4.2 Leak Detection. Underground storage tank systems shall be provided with an *approved* method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.4.3.

(78) The following Section 6103.2.1 is amended by adding Section 6103.2.1.8 to read as follows:

6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies. Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply *approved* torch

assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each container shall be separated from other containers by a distance of not less than 20 feet.

(79) The following Section 6107.4 is amended to read as follows:

6107.4 Protecting Containers from Vehicles. Where exposed to vehicular damage due to proximity to alleys, driveways, or parking areas, LP-gas containers, regulators and piping shall be protected in accordance with Section 312.

(80) Section 6109.13 is amended to read as follows:

6109.13 Protection of Containers. LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle impact protection shall be provided as required by Section 6107.4.

Table B105.2 , footnote a. is amended to read as follows:

a. The reduced fire-flow shall be not less than 1,500 gallons per minute.

Sec. 8-29. – Administration.

- (a) The Richardson Fire Code shall be enforced by the fire prevention division in the fire department of the city, which is hereby established and which shall be operated within the supervision of the chief of the fire department.
- (b) The chief (or fire official) in charge of the fire prevention division shall be appointed by the chief of the fire department under such terms and conditions as may be prescribed by the city manager. The term of office shall be for such time as determined by the chief of the fire department.

SECTION 2. That all provisions of the ordinances of the City of Richardson, Texas, in conflict with the provisions of this Ordinance be, and the same are hereby repealed, and all other provisions of the ordinances of the City of Richardson, Texa, not in conflict with the provisions of this Ordinance shall remain in full force and effect.

SECTION 3. That should any sentence, paragraph, subdivision, clause, phrase or section of this Ordinance be adjudicated or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this Ordinance as a whole, or any part or provision thereof

other than the part so decided to be invalid, illegal or unconstitutional, and shall not affect the validity of the Code of Ordinances as a whole.

SECTION 4. That any offense committed before the effective date of this Ordinance is governed by the prior law and provisions of the Code of Ordinances, as amended, in effect when the offense was committed and the former laws continued in effect for this purpose.

SECTION 5. That any person, firm or corporation violating any of the provisions or terms of this Ordinance shall be subject to the same penalty as provided for in the Code of Ordinances of the City of Richardson, as heretofore amended, and upon conviction shall be punished by a fine not to exceed the sum of Two Thousand Dollars (\$2,000) for each offense; and each and every day such violation shall continue shall be deemed to constitute a separate offense.

SECTION 6. That this ordinance shall take effect immediately from and after its passage, as the law and charter in such cases provide.

DULY PASSED AND APPROVED by the City Council of the City of Richardson, Texas, on the 10th day of October, 2016.

APPROVED:

MAYOR

CORRECTLY ENROLLED:

CITY SECRETARY

APPROVED AS TO FORM:

CITY ATTORNEY
(PGS:10-3-16:TM 79401)