ORDINANCE NO. 3945

AN ORDINANCE OF THE CITY OF FARMERS BRANCH, TEXAS, REPEALING IN ITS ENTIRETY CITY OF FARMERS BRANCH ORDINANCE NO. 3607, CODIFIED AS CHAPTER 38 (FIRE PREVENTION AND PROTECTION) ARTICLE II (FIRE CODE); AND ADOPTING THE 2024 EDITION OF THE INTERNATIONAL FIRE CODE, WITH CERTAIN ADDITIONS, DELETIONS, AND AMENDMENTS, AS THE FIRE CODE OF THE CITY OF FARMERS BRANCH; PROVIDING A REPEALER CLAUSE, SEVERABILITY CLAUSE, A SAVINGS CLAUSE, A PENALTY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the International Code Council (ICC) has developed a set of comprehensive and coordinated national model construction codes, including the International Fire Code; and

WHEREAS, since the 1970s, the City of Farmers Branch has been involved throughout the development process of the ICC, specifically the International Fire Code, in conjunction with the North Texas Chapter of the International Code Council, Regional Codes Coordinating Committee of North Central Texas Council of Governments (NCTCOG), and the International Conference of Building Officials (ICBO); and

WHEREAS, on December 12, 2019, by Ordinance No. 3607, the City Council for the City of Farmers Branch established a Fire Code to reflect and provided regulations thereunder, and such Ordinances were codified as Chapter 38 (Fire Prevention and Protection) Article II (Fire Code) of the City's Code of Ordinances; and

WHEREAS, the 2024 International Fire Code, a publication of the ICC, has been reviewed by city staff and the NCTCOG for necessary updates and amendments; and

WHEREAS, the City Council of the City of Farmers Branch has determined that it is in the best interest of the citizens of the City of Farmers Branch to adopt the 2024 Edition of the International Fire Code, and the additions, deletions, and amendments thereto, as the minimum standards for the safeguarding of life and property from fires and explosion hazards within the City limits, as set forth herein, and to adopt the Fire Code in order to account for unique local practices and /or conditions relating to the design and construction of structures within the City;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, TEXAS, THAT:

SECTION 1. Ordinance No. 3607 duly passed and approved by the City Council of the City of Farmers Branch on December 12, 2019, is hereby repealed in its entirety.

SECTION 2. A new Chapter 38 (Fire Prevention and Protection) Article II (Fire Code) is hereby adopted and shall read in its entirety as follows:

ARTICLE II. FIRE CODE

Sec. 38 -36. Adoption of International Fire Code; purpose.
There is hereby adopted by the City of Farmers Branch, Texas for the purpose of establishing rules and regulations for the design, quality of materials, erection, construction, installation, alteration, repair, location, relocation, replacement, conversion, addition to, moving, removal, demolition, occupancy, equipment, use, height, area and maintenance of all building or structures, the 2024 International Fire Code, published by the International Code Council; with the exception of such sections thereof as are hereafter deleted, modified or amended by this Ordinance, and the same are hereby adopted and incorporated herein, the same as if entirely set out at length herein, and from the date of which this Ordinance shall take effect, the provisions hereof shall be controlling within the corporate limits of the City of Farmers Branch, Texas. This code shall be known as the "Fire Code" or the "Farmers Branch Fire Code".

Sec. 38 -37 Definitions
The following words and phrases shall have the following meanings wherever they appear in the Fire Code:

a) “Building Official” means the Building Official of the City of Farmers Branch, Texas.

b) “Bureau of Fire Prevention" means the Fire Department of the City of Farmers Branch, Texas.

c) “Chief of the Bureau of Fire Prevention” or the word “Chief” means the Fire Chief of the City of Farmers Branch, Texas, or the Chief's authorized representative.

d) “City" means the City of Farmers Branch, Texas.

e) “Corporate counsel" means the City Attorney and any assistant city attorney for the City of Farmers Branch, Texas.

f) Fleet vehicle" means a motor vehicle which is one of a group of motor vehicles, owned or operated as a unit and used in the ongoing course of business.

g) Jurisdiction means the corporate limits of the City of Farmers Branch, Texas.

h) Police Chief means the Chief of Police of the City of Farmers Branch, Texas.

Sec. 38 -38 Local Amendments Adopted
For purposes of enforcement of the provisions of the Fire Code within the incorporated limits of the City, the following deletions, additions, and amendments to the 2024 Edition of the International Fire Code are hereby amended as follows:

[*See* Exhibit A, Local Amendments to the 2024 International Fire Code, attached and incorporated in this Ordinance for the adoption and publication within the City's Code of Ordinance.]

SECTION 3. All provisions of the Code of Ordinances of the City of Farmers Branch in conflict with the provisions of this Ordinance are hereby repealed, and all other provisions of the Code of Ordinances of the City of Farmers Branch, not in conflict with the provisions of this Ordinance, shall remain in full force and effect.

SECTION 4. It is the intention of the City Council that this Ordinance, and every provision thereof, shall be considered severable, and the invalidity or unconstitutionality of any section, clause, provision, or portion of this Ordinance shall not affect the validity or constitutionality of any other portion of this Ordinance.

SECTION 5. The repeal of any Ordinance or part of Ordinances effectuated by the enactment of this Ordinance shall not be construed as abandoning any action now pending under or by virtue of such Ordinance or as discontinuing, abating, modifying or altering any penalty accruing or to accrue, or as affecting any rights of the municipality under any section or provisions of any Ordinances at the time of passage of this Ordinance.

SECTION 6. Any violation of the provisions or terms of this ordinance shall be subject to the same penalty as provided in the Code of Ordinances of the City of Farmers Branch as heretofore amended and, upon conviction, shall be punished by a fine not to exceed the sum of Two Thousand Dollars ($2,000.00). Every day a violation continues shall constitute a separate offense.

SECTION 7. This Ordinance shall take effect on **October 1, 2025**, following the passage of this Ordinance, the publication of the caption hereof as the law and charter in such case provide.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, TEXAS, THIS 19th DAY OF AUGUST, 2025.

ATTEST: **APPROVED:**

_____ _____

Erin Flores, City Secretary Terry Lynne, Mayor

APPROVED AS TO FORM:

Nicole Corr, City Attorney
[vf.07.20.25]

Exhibit A

LOCAL AMENDMENTS TO THE 2024 INTERNATIONAL FIRE CODE

Section 102.1 is amended by amending numbered paragraph 3 to read as follows:

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

1. Structures, facilities and conditions arising after the adoption of this code.
2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this code.
3. Existing structures, facilities and conditions when required in Chapter 11 or in specific sections of this code.
4. Existing structures, facilities and conditions that, in the opinion of the fire code official, constitute a distinct hazard to life or property.

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, 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 by Sections 102.7.1 and 102.7.2. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code or standard shall be considered to reference the amendments as well. Any reference made to NFPA 70 or the electrical code shall mean the Electrical Code as adopted.

Section 104.2.3 is amended by deleting the exception as follows:

104.2.3 Alternative materials, design and methods of construction and equipment.
The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*.
~~**Exception:** Performance-based alternative materials, designs or methods of construction and equipment complying with the *International Code Council Performance Code*.~~

Section 104.6 is amended to read as follows:

104.6 Notices and orders. The *fire code official* ~~shall~~ is authorized to issue necessary notices or orders to ensure compliance with this code. Notices of violations shall be in accordance with Section 113.

Section 105.5 is amended to read as follows:

105.5 Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.5.1 through 105.5.57. Operational permit fees are referenced in Appendix A-Fee Schedule, City of Farmers Branch Code of Ordinances.

Section 105.6 is amended to read as follows:

105.6 Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.6.1 through 105.6.27. Construction permit fees are referenced in Appendix A-Fee Schedule, City of Farmers Branch Code of Ordinances.

Section 105.6 is amended by adding 105.6.26 and 105.6.27 to read as follows:

105.6.26 Electronic access control systems. Construction permits are required to install or modify an electronic access control system, as specified in Chapter 10. A separate construction permit is required to install or modify a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.6.27 Electric vehicle (EV) charging stations. Construction permits are required to install or modify an electric vehicle charging station. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

Section 108.3 is amended by deleting this section in its entirety:

~~**108.3 Permit valuations.** The applicant for a permit shall provide an estimated value of the work for which the permit is being issued at the time of application. Such estimated valuations shall include the total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. Where, in the opinion of the fire code official, the valuation is underestimated, the permit shall be denied unless the applicant can show detailed estimates acceptable to the fire code official. The fire code official shall have the authority to adjust the final valuation for permit fees.~~

Section 108 – Fees is amended by adding Section 108.7 title "Inspection Fees" to read as follows:

108.7 - Inspection Fees. A fee shall be charged to and paid by the Owner for inspections performed pursuant to the Fire Code in accordance with a fee schedule adopted from time to time by the City Council and set forth in Appendix A of the Code of Ordinances.

Section 113.3.1 is amended to read as follows:

Section 113.3.1 Service. A notice of violation issued pursuant to this code shall be served upon the owner, the owner's authorized agent, operator, occupant, or other person responsible for the condition or violation, either by personal service, electronic mail, mail or by delivering the same

to, and leaving it with, some person of responsibility on the premises. For unattended or abandoned locations, a copy of such notice of violation shall be mailed by certified mail with return receipt requested or a certificate of mailing, to the last known address of the owner, the owner's authorized agent, or occupant.

Section 112, MEANS OF APPEALS - including all of its subsections, is deleted.

~~**112.1 General.** In order to hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the fire code official.~~

~~**112.2 Limitations on authority**. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equivalent or better form of construction is proposed. The board shall not have authority to waive requirements of this code.~~

~~**112.3 Qualifications**. The board of appeals shall consist of members who are qualified by experience and training on matters pertaining to the provisions of this code and are not employees of the jurisdiction.~~

~~**112..4 Administration.** The fire code official shall take action without delay in accordance with the decision of the board.~~

Section 202 is amended by amending and adding definitions to read as follows:

AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to persons who are rendered *incapable of self-preservation* by the services provided or staff has accepted responsibility for care recipients already incapable. This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff.

CARBON MONOXIDE SOURCE. ~~A piece of commonly used equipment or permanently installed appliance, fireplace or process that produces or emits carbon monoxide gas~~. A combustion process that has the potential to produce carbon monoxide as a product of combustion under normal or abnormal conditions. Carbon monoxide sources include, but are not limited to solid-, liquid-, or gas-fueled appliances, equipment, devices, or systems, such as fireplaces, furnaces, heaters, boilers, cooking equipment, and vehicles with internal combustion engines.

CARBON MONOXIDE SOURCE, DIRECT. A permanently installed carbon monoxide source that is located in an interior space.

CARBON MONOXIDE SOURCE, INDIRECT. A carbon monoxide source connected to an interior space by a forced air supply duct.

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 1.3G fireworks or 1.4G fireworks.

> **Fireworks, 1.3G**. Large fireworks devices, which are explosive material, 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.
>
> **Fireworks, 1.4G.** Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion or deflagration that complies with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336, and the US Consumer Product Safety Commission as set forth in CPSACX 16 CFR Parts 1500 and 1507.

HIGH-PILED COMBUSTIBLE STORAGE. Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet (3658 mm) in height. Where required by the *fire code official, high-piled combustible storage* also includes certain high-hazard commodities, such as rubber tires, Group A plastics, *flammable liquids,* idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

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 (speculative warehouse), a fire protection system and life safety features shall be installed for Class IV commodities, to the maximum pile height.

HIGH-RISE BUILDING. A building with an occupied floor or occupied roof located more than ~~75~~ 55 feet (~~22,860~~ 16,764 mm) above the lowest level of fire department vehicle access

REPAIR GARAGE. A building, structure, or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification, and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement, and other such minor repairs.

SELF-SERVICE STORAGE FACILITY. Real property designed and used to rent or lease individual storage spaces to customers to store and remove personal property on a self-service basis.

STANDBY PERSONNEL. Qualified fire service personnel, approved by the Fire Code Official. When utilized, the number required shall be as directed by the Fire Code Official. 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

Section 203.2.3 is amended by adding a sentence to read as follows:

203.2.3 Associated with Group E occupancies. A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy, except when applying the assembly requirements of Chapters 10 and 11.

Section 203.3 is amended to read as follows:

203.3 Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not limited to, the following:

- Airport traffic control towers
- Ambulatory care facilities

- Animal hospitals, kennels and pounds
- Banks
- Barber and beauty shops
- Car wash
- Civic administration
- Clinic, outpatient
- Dry cleaning and laundries: pick-up and delivery stations and self-service
- Educational occupancies for students above the 12th grade including higher education laboratories
- Electronic data entry
- Fire stations
- Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities
- Laboratories: testing and research
- Lithium-ion or lithium metal battery testing, research and development
- Motor vehicle showrooms
- Police stations
- Post offices
- Print shops
- Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
- Radio and television stations
- Telephone exchanges
- Training and skill development not in a school or academic program (this shall include but not limited to, tutoring centers, martial arts studios, gymnastics, and similar uses regardless of the ages served, and where not classified as a group A occupancy.)

Section 307.1.1 is amended to read as follows:

307.1.1 Prohibited Open Burning. Open burning ~~shall be prohibited~~ 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*.

Section 307.1 is amended by adding Section 307.1.2 to read as follows:

307.1.2 Open Burning, Bonfires, Recreational Fires, Portable Outdoor Fireplaces.

Rubbish, construction materials, leaves, and domestic waste are prohibited from being used in open burning, bonfires, recreational fires, and portable outdoor fireplaces.

Section 307.2 is amended to read as follows:

Section 307.2 Permit Required. A permit shall be obtained from the *fire code official* in accordance with Section 105.5 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning ~~a bonfire.~~ Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

Examples of state or local law, or regulations referenced elsewhere in this section may include but not be limited to the following:

1. Texas Commission on Environmental Quality (TCEQ) guidelines and/or restrictions.
2. State, County, or Local temporary or permanent bans on open burning.
3. Local written policies as established by the *fire code official*.

Section 307.3 is amended to read as follows:

307.3 Extinguishment authority. Where open burning creates or adds to a hazardous or objectionable situation, or a required permit for open burning has not been obtained, the fire code official is authorized to order the extinguishment of the open burning operation by the permit holder, another person responsible or the fire department.

Section 307.4 and 307.4.1 is amended to read as follows:

307.4 Location. The location for open burning shall not be less than ~~50~~ 300 feet (~~15,240~~ 91,440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within ~~50~~ 300 feet (~~15,240~~ 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 (7260 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.

307.4.1 Bonfires. A bonfire shall not be conducted within 50 feet (15 240 mm), or greater distance as determined by the fire code official, of a structure or combustible material, unless

the fire is contained in a barbecue pit. Conditions that could cause a fire to spread to within the required setback ~~50 feet (15 240 mm)~~ of a structure shall be eliminated prior to ignition.

Section 307.4.3 is amended to read as follows:

307.4.3 Portable outdoor fireplaces. Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet of a structure or combustible material.

Exceptions:

1. Portable outdoor fireplaces used at one- and two-family dwellings.
2. Where buildings, balconies, and decks are protected by an approved automatic sprinkler system.

Section 307.4 is amended by adding Section 307.4.4 and Section 307.4.5 to read as follows:

307.4.4 Permanent outdoor fire pit. Permanently installed outdoor fire pits 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 Residential Code or International Building Code.

307.4.5 Trench Burns. Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2.

Section 307.5 is amended to read as follows:

307.5 Attendance. Open burning, trench burns, bonfires, recreational fires and use of portable or permanent outdoor fireplaces or firepits shall be constantly attended until the fire is extinguished. Not fewer than one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

Section 308.1.6 is amended by amending Exception number 3 to read as follows:

308.1.6 Portable fueled open-flame devices. Portable open-flame devices fueled by flammable or combustible gases 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 308.4 or 308.1.3.
4. Candles and open-flame decorative devices in accordance with Section 308.3

Section 308.1.7 is amended to read as follows:

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

Section 308.1.9 is amended to read as follows:

308.1.9 Aisles and exits. Candles or open flames shall be prohibited in areas where occupants stand, or in an *aisle* or *exit*.

Section 308.1 is amended by adding Section 308.1.11 to read as follows:

308.1.11 Open-flame cooking devices. Open flame cooking devices shall comply with Section 4104.

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 115 of this code relating to structural or interior hazards, ~~shall be marked~~ as required by Section 311.5.1 through 311.5.5.

Section 314.4 is amended to read as follows:

314.4 Vehicles. Electric, liquid-fueled, or gaseous-fueled vehicles, aircraft, boats, or other motorcraft shall not be located indoors except as follows:

1. The engine starting system is made inoperable or ignition batteries are disconnected except where the *fire code official* requires that the batteries remain connected to maintain safety features.
2. Fuel in fuel tanks does not exceed any of the following:
    2.1. Class I, II, and III liquid fuel does not exceed one-quarter tank or 5 gallons (19 L), whichever is less.
    2.2. LP gas does not exceed one-quarter tank or 6.6 gallons (25 L), whichever is less.
    2.3. CNG does not exceed one-quarter tank or 630 cubic feet (17.8 m^3), whichever is less.
    2.4. Hydrogen does not exceed one-quarter tank or 2,000 cubic feet (57 m^3), whichever is less.
3. Fuel tanks and fill openings are closed and sealed to prevent tampering.

4. Vehicles, aircraft, boats, or other motorcraft equipment are not fueled or defueled within the building.

5. Batteries in electric vehicles shall be rendered inoperable by the removal of fuses or other approved methods, but shall not be required to be disconnected. Electric vehicles shall not be charged inside buildings, other than where approved in parking garages, or unless otherwise approved by the fire code official.

Section 323 is amended by adding new Section 323, Section 323.1, Section 323.1.2, Section 323.2, Section 323.2.1, Section 323.2.2, and Section 323.3, which are added to read as follows:

323 Electric Vehicles

323.1 Electric Vehicle Charging Stations. Electric vehicle (EV) charging stations shall not be located inside buildings, ~~except where approved for parking garage locations as per the National Electrical Code~~. Where provided, electric vehicle charging systems shall be installed in accordance with NFPA 70 and SAE Standard J1772-2017. Electric vehicle charging system equipment shall be listed and labeled in accordance with UL 2594. Accessibility to electric vehicle charging stations shall be provided in accordance with IBC Section 1108.

~~**323.1.1 Charging Stations Inside Parking Garage.** EV charging stations located in parking garages shall be located at grade level along the exterior perimeter walls and shall be within 150 feet of fire apparatus access roadway, or shall be located on the top level of the garage with no roof above.~~

323.1.2 Charging Stations inside R-3 and R-4 occupancies. Approved charging stations in the private garage shall have a listed heat alarm installed in the garage and interconnected to the smoke alarms inside the dwelling.

323.2 Disconnect. All electric vehicle charging system locations shall have a Knox Remote Power Box to allow the fire department to remotely operate a shunt trip breaker to safely disconnect power to the charging station(s). The Knox Remote Power Box shall be located within 50 feet of, but not less than 30 feet from the charging station(s). Location of remote shutoff would be at a point that allows the shutoff operator to visually see the incident and not be somewhere out of the line-of-sight. The Knox Remote Power Box shall be located such that it is protected from physical damage or against an impact by a motor vehicle~~. Locations containing electric vehicle charging stations shall be provided with a clearly identified and readily accessible emergency disconnect installed in an approved location.~~

~~The emergency disconnects for exterior electric vehicle charging stations shall be located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from the charging stations, unless otherwise approved by the *fire code official*.~~

323.2.1 Height. The height of the Knox Remote Power Box emergency disconnect switch shall be not less than 42 inches (1067 mm) and not more than 48 inches

(1219 mm) measured vertically, from the floor level to the Knox Remote Power Box. ~~activating button~~.

323.2.2 Emergency Disconnect Sign. Emergency disconnect devices shall be distinctly labeled as: "EMERGENCY ELECTRIC VEHICLE CHARGER DISCONNECT – FIRE DEPT. USE ONLY." Signs shall be placed in an *approved* location and shall consist of all of the following:

1. White reflective background with red letters.
2. Weather-resistant durable material.
3. Lettering not less than 2 inches (51 mm) high.
4. Permanently affixed to the building or structure in an approved manner.

323.3 Damaged Electric Vehicle Batteries. Damaged electric vehicle batteries shall not be stored inside any building.

Section 403.4 is amended to read as follows:

403.4 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 comply with sections 403.4.1 through 403.4.3.

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 Protection 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.

Section 405.5 is amended to read as follows:

405.5. 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.

Exceptions:

1. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill termination points and frequency.
2. In Groups I-1, I-2, I-3 and R-4, where staff-only emergency evacuation drills are conducted after visiting hours or where care recipients are expected to be asleep, a coded announcement shall be an acceptable alternative to audible alarms.
3. Notification of teachers/staff having supervision of light-or sound-sensitive students/occupants, such as those on the autism spectrum, for the protection of those students/occupant, shall be allowed prior to conducting a drill.

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. ~~such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2.~~

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 (3048 mm) unobstructed pathway around the external walls of the structure.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where any of the following conditions occur:
   1.1 The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
   1.2 Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
   1.3 There are not more than two Group R-3 or Group U occupancies.

2. Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

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 ~~20~~ 24 feet (~~6096 mm~~ 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 ~~13 feet 6 inches (4115 mm)~~ 14 feet (4267 mm).

Section 503.2.2 is amended to read as follows:

503.2.2 Authority. The fire code official shall have the authority to require ~~or permit modifications to the required~~ an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

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 85,000 Lbs. for fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

Section 503.2.7 is amended to read as follows.

503.2.7 Grade. The grade of the fire apparatus access roads shall not exceed 6 percent in grade ~~be within the limits established by the fire code official based on the fire department's apparatus~~.

Section 503.3 is amended to read as follows:

503.3 Marking. ~~Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING – FIRE LANE~~ 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. ~~The means by which fire lanes are designated~~ 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. A 12-inch spacing is required between "FIRE LANE" AND "NO PARKING". Where a curb is available, the striping shall be on the vertical face of the curb.

(2) Signs – Signs shall read "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 code official.

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 503.2.2 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

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 ~~4 inches (102 mm)~~ 12 inches (304 mm) high with a minimum stroke width of ~~½ inch (12.7 mm)~~ 2 inches (50 mm). Suite

numbers shall be a minimum of 6 inches (154 mm) high with a minimum stroke width of 1 inch (25 mm) and numbers on rear-entry doors shall be a minimum of 3 inches (76 mm) high with a minimum stroke of 0.5 inch (12.7 mm). Where required by the fire code official, address ~~identification~~ 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 12-inch (304.4 mm) height building numerals or addresses and 6-inch (154 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. Obsolete address numbers shall be removed as directed by the code official.

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 fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, as required. ~~or approved documentation of the test shall be provided to the *fire code official* prior to final approval of the water supply system~~. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the 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 licensed contractor must then design the fire protection system based on this fluctuation information, as per Section 903.3.5 and the applicable referenced NFPA standard. Reference Section 903.3.5 for additional design requirements.

Sections 507.5.1 and 507.5.1.1 are amended to read as follows:

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than ~~400 (122 mm)~~ 300 feet (91 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

~~Exceptions:~~

1. ~~For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 mm)~~
2. ~~For buildings equipped with throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 mm).~~

507.5.1.1 Hydrant for sprinkler and standpipe systems. Buildings equipped with an automatic fire sprinkler or standpipe system ~~in accordance with Section 905~~ shall have a fire hydrant within 100 feet (30 480 mm) of the fire department connection.

Exception: The distance shall be permitted to exceed 100 feet (30 480 mm) where approved by the fire code official.

Section 507.5.4 is amended to read as follows:

507.5.4 Obstruction. Unobstructed access to 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 inlet 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.

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.

Section 510.6.1 is amended by adding a paragraph to read as follows:

510.6.1 Testing and proof of compliance. The owner of the building or owner's authorized agent shall have the in-building emergency responder communications enhancement system inspected and tested annually or where structural changes occur, including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

1. In-building coverage test as described in Section 510.5.4.
2. Signal boosters shall be tested to verify that the gain is the same as it was upon initial installation and acceptance, or set to optimize the performance of the system.
3. Backup batteries and power supplies shall be tested under load for a period of 1 hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. All active components shall be checked to verify operation within the manufacturer's specifications.

At the conclusion of the testing, a report, which shall verify compliance with Section 510.5.4, shall be submitted to the fire code official.

The inspecting radio contractor shall provide an annual inspection tag/sticker on the ERCES' BDA and any remote annunciator. Tag/sticker shall identify approved inspecting contractor's name, physical address, phone number, and FCC license number, and inspector's name, as well as the

date of inspection. System shall not be tagged until all inspection requirements of this section are conducted. Tag/sticker shall be blue in color for a passing system. If this is not possible for any reason, tag/sticker shall be red in color for a failing system with reasons for failure indicated on the tag if possible. If red tag/sticker is placed, AHJ/Fire Marshal shall be notified within a maximum of 24 hours.

Section 604.7 is amended to read as follows:

604.7 Storage. Storage is prohibited in elevator cars or elevator machine rooms. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

Exceptions:

1. Blankets used for protection of elevator cab walls during construction or renovation.
2. Materials necessary for the operation and maintenance of the elevator equipment.

Section 605.4 through 605.4.2.2 is amended to read as follows:

605.4 Fuel oil storage systems. Fuel oil storage systems ~~for building heating systems~~ shall be installed and maintained in accordance with this code. Tanks and fuel-oil piping systems shall be installed in accordance with Chapter 13 of the International Mechanical Code and Chapter 57.

605.4.1 Fuel oil storage in outside, above-ground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31 and Chapter 57.

605.4.1.1 Approval. Outdoor fuel oil storage tanks shall be in accordance with UL 80, UL 142, UL142A or UL 2085, and also listed as double-wall/secondary containment tanks.

605.4.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with Sections 605.4.2.1~~2~~ through 605.4.2.8 ~~or~~ and Chapter 57.

605.4.2.1 Approval. Indoor fuel oil storage tanks shall be in accordance with UL 80, UL 142, UL142A or UL 2085.

605.4.2.2 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 tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142, UL 142A or UL 2085, and also listed as a

double-wall/secondary containment tank for Class II liquids, and the secondary containment shall be monitored visually or automatically.

2. 1,320 gallons (4996 L) in buildings equipped with an automatic sprinkler system in accordance with Section 903.3.1.1, where stored in a tank complying with UL 142, UL 142A or UL 2085. The tank shall be listed as a secondary containment tank, and the secondary containment shall be monitored visually or automatically.
3. 3,000 gallons (11 356 L) in buildings equipped with an automatic sprinkler system in accordance with Section 903.3.1.1, where stored in protected above-ground tanks complying with UL 2085 and Section 5704.2.9.7. The tank shall be listed as a secondary containment tank, as required by UL 2085, and the secondary containment shall be monitored visually or automatically.

Section 606.2 is amended to read as follows:

606.2 Where Required. A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors, including but not limited to cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, or any form of roofed enclosure, as required by the fire code official.

Exceptions:

1. Factory-built commercial exhaust hoods that are listed and labeled in accordance with UL 710, and installed in accordance with Section 304.1 of the International Mechanical Code, shall not be required to comply with Sections 507.1.5, 507.2.3, 507.2.5, 507.2.8, 507.3.1, 507.3.3, 507.1.6, and 507.2.10 of the International Mechanical Code.
2. Factory-built commercial cooking recirculating systems that are listed and labeled in accordance with UL 710B, and installed in accordance with Section 304.1 of the International Mechanical Code, shall not be required to comply with Sections 507.1.5, 507.2.3, 507.2.5, 507.2.8, 507.3.1, 507.3.3, 507.1.6, and 507.2.10 of the International Mechanical Code. Spaces in which such systems are located shall be considered to be kitchens and shall be ventilated in accordance with Table 403.3.1.1 of the International Mechanical Code. For the purpose of determining the floor area required to be ventilated, each individual appliance shall be considered as occupying not less than 100 square feet (9.3 m^2).
3. Where cooking appliances are equipped with integral down-draft exhaust systems and such appliances and exhaust systems are listed and labeled for the application in accordance with NFPA 96, a hood shall not be required at or above them.
4. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m^3 or less of grease when tested at an exhaust flow rate of 500 cfm (0.236m^3/s) in accordance with UL 710B.

Section 807.5.2.2 is 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 be noncombustible.

> **Exception:** 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.

Section 807.5.2.3 is amended to read as follows:

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 be noncombustible.

Section 807.5.5.2 is 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 be noncombustible.

> **Exception:** 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.

Section 807.5.5.3 is amended to read as follows:

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 be noncombustible.

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 or inspected by approved camera when foreign material is present or when caps are missing, 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 are no required pressure criteria 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 flowed external to 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.

Section 901.6. is amended by adding Sections 901.6.4, 901.6.5, 901.6.6 to read as follows:

901.6.4 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.

901.6.5 Systems in high-rise buildings. The owner of a high-rise building shall be responsible for assuring that the fire and life-safety systems required by the Building Code are maintained in an operable condition at all times. Unless otherwise required by the chief, quarterly tests of such systems shall be conducted by approved persons. A written record shall be maintained and shall be made available to the inspection authority.

901.6.6 Smoke-control systems. Mechanical smoke-control systems, such as those in high-rise buildings, buildings containing atria, covered mall buildings and mechanical ventilation systems utilized in high-piled combustible storage occupancies, shall be maintained in an operable condition at all times. Unless otherwise required by the chief, quarterly tests of such systems shall be conducted by approved persons. A written record shall be maintained and shall be made available to the inspection authority.

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 on 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.

> **Exception:** Facilities with an approved notification and impairment management program. The notification and impairment program for water-based fire protection systems shall comply with NFPA 25.

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 ~~instead of~~ in addition to automatic sprinkler protection where recognized by the applicable standard ~~and~~, or as approved by the fire code official.

Section 903.2 is amended to read as follows and delete the Exception:

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.

~~**Exception:** Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries not required to have an automatic sprinkler system by Section 1207 for energy storage systems and standby engines, provided that those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.~~

Section 903.2.2.1 is amended to read as follows:

Ambulatory care facilities. An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation.

2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor as well as all floors below where such care is provided, and all floors between the level of ambulatory care and the nearest level of exit discharge, the level of exit discharge, and all floors below the level of exit discharge.

Exception: Unless otherwise required by this code, floors classified as an open parking garage are not required to be sprinklered.

Section 903.2.8 is amended by adding Section 903.2.8.4 to read as follows:

Section 903.2.8.4 Townhouses. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all Group R-3 Townhouse Occupancies.

Section 903.2.9.4 is amended to read as follows:

903.2.9.4 Group S-1 upholstered furniture and mattresses. An automatic sprinkler system shall be provided throughout a Group S-1 fire area where the area used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m^2).

~~**Exception:** Self-service storage facilities not greater than one story above grade plane where all storage spaces can be accessed directly from the exterior.~~

Section 903.2.9 is amended by adding Section 903.2.9.5 to read as follows:

Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities. The minimum sprinkler system design shall be based on an Ordinary Hazard Group II classification, in accordance with NFPA 13 requirements. Physical construction in compliance with open-grid ceilings as per NFPA 13, such as an open metal grid ceiling or chicken wire that does not obstruct the overhead sprinkler protection, shall be installed to prevent storage from exceeding the lower of either 12 feet above finished floor or 18 inches beneath standard sprinkler head deflectors. At least one sprinkler head shall be provided in each storage unit/room (additional sprinklers may be necessary for compliance with NFPA 13 spacing requirements), regardless of wall height or construction type separating such units.

Section 903.2.11.3 is amended to read as follows:

903.2.11.3 Buildings ~~55~~ 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories ~~with an occupant load of 30 or more,~~ other than penthouses in compliance with Section 1511 of the International Building Code, located ~~55~~ 35 feet (~~16 764~~ 10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exception:

~~1. Occupancies in Group F-2.~~

1. Open parking structures in compliance with section 406.5 of the International Building Code, having no other occupancies above the subject garage and has a minimum of two complete sides unobstructed for fire department access by roadway or fire lane.
2. All Group R-3 Single Family Home (detached) Occupancies.

Section 903.2.11 is amended by adding Sections 903.2.11.7, 903.2.11.8, and 903.2.11.9 to read as follows:

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

903.2.11.8 Spray Booths and Rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

903.2.11.9 Buildings Over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages complying with 903.2.10

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 rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction, or contains electrical equipment.

1. A room or space where sprinklers constitute a serious life or fire hazard because of the nature of the contents, where approved by the fire code official.
2. 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.
3. ~~Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
4. ~~Fire service access~~
3. Elevator machine rooms, ~~and~~ machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. ~~Machine rooms, machinery spaces, control rooms and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.~~

Section 903.3.1.1.4 is added to read as follows:

903.3.1.1.4 Dry pipe sprinkler systems. Dry pipe sprinkler systems protecting fire areas of Type III, IV and V construction shall be required to meet the 60 second water delivery time, per NFPA 13, to the system test connection regardless of the system size, unless more stringent criteria are applicable in NFPA 13, and all dry pipe sprinkler systems shall be trip tested to flow/discharge water to verify compliance with this requirement, unless otherwise approved by the fire code official.

Section 903.3.1.2.2 is amended to read as follows:

903.3.1.2.2 Corridors and balconies ~~in the means of egress~~. Sprinkler protection shall be provided in all corridors and for all balconies. ~~in the means of egress where any of the following conditions apply:~~

~~1. Corridors with combustible floor or walls.~~

~~2. Corridors with an interior change of direction exceeding 45 degrees (0.79 rad).~~

3. Corridors that are less than 50 percent open to the outside atmosphere at the ends.
4. Open-ended corridors and associated exterior stairways and ramps as specified in Section 1027.6, Exception 3.
5. Egress balconies not complying with Sections 1021.2 and 1021.3.

Section 903.3.1.2.3 is amended by deleting Section 903.3.1.2.3 and replacing to read as follows:

903.3.1.2.3 Attics. Attic protection shall be provided as follows:

1. Attics that are used or intended for living purposes or storage shall be protected by an *automatic sprinkler system*.

2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.

3. Where located in a building of Type III, Type IV or Type V construction designed in accordance with Section 510.2 or 510.4 of the *International Building Code*, attics not required by Item 1 to have sprinklers shall comply with one of the following if the roof assembly is located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access needed to meet the provisions in Section 503:

3.1 Provide *automatic sprinkler system* protection.
3.2 Construct the attic using noncombustible materials.
3.3 Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the *International Building Code*.
3.4 Fill the attic with noncombustible insulation.

The height of the roof assembly shall be determined by measuring the distance from the lowest required fire vehicle access road surface adjacent to the building to the eave of the highest pitched roof, the intersection of the highest roof to the *exterior wall*, or the top of the highest parapet, whichever yields the greatest distance. For the purpose of this measurement, required fire vehicle access roads shall include only those roads that are necessary for compliance with Section 503.

4. Group R-4, Condition 2 occupancy attics not required by Item 1 to have sprinklers shall comply with one of the following:

4.1 Provide *automatic sprinkler system* protection.

4.2 Provide a heat detection system throughout the attic that is arranged to activate the building *fire alarm system*.
4.3 Construct the attic using noncombustible materials.

4.4 Construct the attic using fire-retardant-treated wood complying with Section 2302.2 of the International Building Code.

~~4.5 Fill the attic with noncombustible insulation.~~

Section 903.3.1.2.3 Attached Garages, Open Breezeways and Attics. Sprinkler protection is required in attached garages, open breezeways, and in the following attic spaces:

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.
4. Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following:
   - 4.1. Provide automatic sprinkler system protection.
   - 4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.
   - 4.3. Construct the attic using noncombustible materials.
   - 4.4. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.
   - 4.5. Fill the attic with noncombustible insulation.

Section 903.3.1.3 is amended to read as follows:

903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems installed in one- and two-family dwellings, Group R-3 and R-4 Condition 1 and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

Section 903.3.1 is amended by adding Section 903.3.1.4 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, pre-action, 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.

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 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 supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10-psi safety factor. Reference Section 507.4 for additional design requirements.

903.3.9 ~~High-rise~~ Building floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser as indicated below: ~~in high-rise buildings~~

1. In High Rise Buildings, floor control assemblies shall be located in protected stairwells, or as otherwise approved by the fire code official.
2. In all other buildings, floor control assemblies shall be located as approved by the fire code official.

Section 903.4.1 is amended by adding the following paragraph after the *Exceptions*.

903.4.1 Electronic supervision. Valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all automatic 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, provided that backflow prevention device test valves located in limited area sprinkler system supply piping shall be locked in the open position unless supplying an occupancy required to be equipped with a fire alarm system, in which case the backflow preventer valves shall be electrically supervised by a tamper switch installed in accordance with NFPA 72 and separately annunciated.
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.
8. Underground key or hub gate valves in roadway boxes.

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 water flow for more than 45 seconds. Reference Section 903.3.9 for required floor control assemblies. 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.

Section 903.4.3 is amended to read as follows:

903.4.3 Alarms. An approved audible device and visual sprinkler waterflow alarm 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 water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a waterflow switch is required by Section 903.4.1 to be electrically supervised, such sprinkler waterflow alarm devices shall be powered by a fire alarm control unit or, where provided, a fire alarm system. Where a fire alarm system is provided, 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, installed as close as practicable to the fire department connection.

Exception: Automatic sprinkler systems protecting one- and two-family dwellings.

Section 905.3 is amended by adding Section 905.3.8 to read as follows:

905.3.8 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 150 feet (45720 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I standpipes shall be provided.

Exceptions:

1. Automatic dry and semi-automatic dry, or manual dry standpipes are allowed as provided for in NFPA 14 when approved by Code Official.

2. R-2 occupancies of four stories or less in height having no interior corridors.

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 interior exit stairway or exterior exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at the main floor landing unless otherwise approved by the fire code official.

   Exception: A single hose connection shall be permitted to be installed in the open corridor or open breezeway between open stairs that are not greater than 75 feet (22 860 mm) apart.

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 or exterior 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.

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

   Exception: Where floor areas adjacent to an exit passageway are reachable from an interior exit stairway or exterior exit stair- way 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 entrance from the exit passageway to other areas of the building.

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 4 units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way ~~a~~ hose connection ~~shall be~~ located to serve the roof or at the highest landing of an ~~interior~~ exit stairway with stair access to the roof provided in accordance with Section 1011.12.

6. Where the most remote portion of a non-sprinklered 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 (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

Section 905.8 is amended to read as follows:

905.8 Dry standpipes. Dry standpipes shall not be installed.

Exception: Where subject to freezing and in accordance with NFPA 14. Additionally, 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 Supervisory alarm.

Section 905.9 is amended by adding the following paragraph after the Exception:

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 903.4.1. 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 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 water flow for more than 45 seconds. Reference Section 903.3.9 for required floor control assemblies. 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.

Paragraph 1 of Section 906.1 is amended to read in its entirety as follows, including the deletion of the Exceptions:

906.1 Where required. Portable fire extinguishers shall be installed in all of the following locations:

1. In new and existing Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.

~~**Exceptions:**~~

~~1. In Group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each *dwelling unit* is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.~~

~~2. In Group E occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each classroom is provided with a portable fire extinguisher having a minimum rating of 2-A:20-B:C.~~

~~3. In storage areas of Group S occupancies where forklift, powered industrial truck or powered cart operators are the primary occupants, fixed extinguishers, as specified in NFPA 10, shall not be required where in accordance with all of the following:~~

3.1. Use of vehicle-mounted extinguishers shall be *approved* by the *fire code official*.

3.2. Each vehicle shall be equipped with a 10-pound, 40A:80B:C extinguisher affixed to the vehicle using a mounting bracket *approved* by the extinguisher manufacturer or the *fire code official* for vehicular use.

3.3. Not less than two spare extinguishers of equal or greater rating shall be available on-site to replace a discharged extinguisher.

3.4. Vehicle operators shall be trained in the proper operation, use and inspection of extinguishers.

3.5. Inspections of vehicle-mounted extinguishers shall be performed daily.

2. Within 30 feet (9144 mm) distance of travel from commercial cooking equipment and from domestic cooking equipment in Group I-1; I-2, Condition 1; and R-2 college dormitory occupancies.
3. In areas where *flammable* or *combustible liquids* are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 3306.6.
5. Where required by the sections indicated in Table 906.1.
6. Special hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the *fire code official*.

Exception: Portable fire extinguishers are not required at normally unmanned Group U occupancy buildings or structures where a portable fire extinguisher suitable to the hazard of the location is provided on the vehicle of visiting personnel.

Section 907.1 is amended by adding Section 907.1.4 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.

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 where the having an occupant load due to the assembly occupancy is of 300 or more persons, or where the Group A occupant load is 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.

Exceptions:

1. 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 through- out the notification zones upon sprinkler water flow.

2. Manual fire alarm boxes and the associated occupant notification system or emergency voice/alarm communication system are not required for Group A-5 outdoor bleacher-type seating having an occupant load of greater than or equal to 300 and less than 15,000 occupants, provided that all of the following are met:
    a. A public address system with standby power is provided.
    b. Enclosed spaces attached to or within 5 feet (1524 mm) of the outdoor bleacher type seating compose, in the aggregate, a maximum of 10 percent of the overall area of the outdoor bleacher-type seating or 1,000 square feet (92.9 m^2), whichever is less.
    c. Enclosed accessory spaces under or attached to the outdoor bleacher-type seating shall be separated from the bleacher-type seating in accordance with Section 1030.1.1.1.
    d. All means of egress from the bleacher-type seating are open to the outside.
3. Manual fire alarm boxes and the associated occupant notification system or emergency voice/alarm communication system are not required for temporary Group A-5 outdoor bleacher-type seating, provided that all of the following are met:
    a. There are no enclosed spaces under or attached to the outdoor bleacher-type seating.
    b. The bleacher-type seating is erected for a period of less than 180 days.
    c. Evacuation of the bleacher-type seating is included in an *approved* fire safety plan.

Activation of fire alarm notification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot-candle (11lux) at the walking surface level, and

2. Stop any conflicting or confusing sounds and visual distractions.

Section 907.2.2 is amended by deleting the paragraph titled "Exception".

907.2.2 Group B. A manual fire alarm system, which activates the occupant notification system in accordance with Section 907.5, shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B *occupant load* of all floors is 500 or more.
2. The Group B *occupant load* is more than 100 persons above or below the lowest *level of exit discharge*.
3. The *fire area* contains an ambulatory care facility.

~~**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.~~

Section 907.2.3 is amended to read in its entirety 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 alarms 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, where 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 occupancies with an occupant load of 50 or less when provided with an approved automatic sprinkler system.

    1.1 Residential In-Home day care with not more than 12 children may use hard-wired or wireless interconnected single station detectors with battery backup in all habitable rooms. (For care of more than five children 2 ½ 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 shall not be 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.~~

~~3.4 Manual activation is provided from a normally occupied location.~~

~~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.~~

Section 907.2.4 is amended by deleting the paragraph titled "Exception."

907.2.4 Group F. A manual *fire alarm system* that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies where both of the following conditions exist:

1. The Group F occupancy is two or more stories in height.
2. The Group F occupancy has a combined *occupant load* of 500 or more above or below the lowest *level of exit discharge*.

~~**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.~~

Section 907.2.7.1 is amended by deleting Exception 2.

907.2.7 Group M. Fire alarm systems shall be required in Group M occupancies in accordance with Sections 907.2.7.1 and 907.2.7.2.

907.2.7.1 Occupant load. A manual *fire alarm system* that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies where one of the following conditions exists:

1. The combined Group M *occupant load* of all floors is 500 or more persons.
2. The Group M *occupant load* is more than 100 persons above or below the lowest *level of exit discharge*.

Exceptions:

1. A manual *fire alarm system* is not required in covered or open mall buildings complying with Section 402 of the *International Building Code*.
2. ~~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 automatically activate throughout the notification zones upon sprinkler water flow.~~

Section 907.2.8.1 is amended by deleting Exceptions 2, 2.1, 2.2, and 2.3.

907.2.8 Group R-1. Fire alarm systems and smoke alarms shall be installed in Group R-1 occupancies as required in Sections 907.2.8.1through 907.2.8.3.

907.2.8.1 Manual fire alarm system. A manual *fire alarm system* that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-1 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual sleeping units and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by not less than 1-hour fire partitions and each individual sleeping unit has an exit directly to a public way, egress court or yard.
2. ~~Manual fire alarm boxes are not required throughout the building where all of the following conditions are met:~~

~~2.1 The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~

~~2.2 The notification appliances will activate upon sprinkler water flow.~~

~~2.3 Not fewer than one manual fire alarm box is installed at an approved location.~~

Section 907.2.9.1 is amended by deleting Exceptions 2 and 3.

907.2.9.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies where any of the following conditions apply:

1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge.
2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit.

Exceptions:

1. A fire alarm system is not required in buildings not more than two story in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by not less than 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, egress court or yard.
2. ~~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 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.~~
3. ~~A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.21, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with section 1027.6, Exception 3.~~

Section 907.2.10.1 is amended to read as follows:

907.2.10.1 Public- and Self-Storage Occupancies. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public- and self-storage occupancies ~~three stories or greater in height~~ for interior corridors and interior common areas. Visible notification appliances are not required within storage units.
Exception: {No change.}

Exception 3 in Section 907.2.13 is amended to read as follows:

907.2.13 High-rise buildings. High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system by Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 of this code and Section 412 of the International Building Code.
2. Open parking garages in accordance with Section 406.5 of the International Building Code.
3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the International Building Code.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the International Building Code.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system.

Section 907.2.13.1.1 is amended by amending numbered paragraph 1 and adding a new numbered paragraph 3 to read as follows:

907.2.13.1.1 Area smoke detection. Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.9, smoke detectors shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room and Central Control Station ~~that is not provided with sprinkler protection.~~
2. In each elevator machine room, machinery space, control room and control space and in elevator lobbies.
3. For Group R, Division 1 Occupancies, in all interior corridors serving as a means of egress for an occupant load of 10 or more.

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.

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.

Section 907.6.3 is amended by deleting all "Exceptions."

907.6.3 Initiating device identification. The fire alarm system shall identify the specific initiating device address, location, device type, floor level where applicable and status including indication of normal, alarm, trouble and supervisory status, as appropriate.

~~**Exceptions:**~~

1. ~~Fire alarm systems in single-story buildings less than 22,500 square feet (2090 m2) in area.~~
2. ~~Fire alarm systems that only include manual fire alarm boxes, waterflow initiating devices and not more than 10 additional alarm-initiating devices.~~
3. ~~Special initiating devices that do not support individual device identification.~~
4. ~~Fire alarm systems or devices that are replacing existing equipment.~~

Section 907.6.4.2 is amended to read as follows:

907.6.4.2 High-rise buildings. In high-rise buildings, a separate zone by floor or an addressable fire alarm system shall be provided, based on the current fire alarm system installation for each of the following types of alarm-initiating devices where provided:

1. Smoke detectors
2. Sprinkler waterflow devices
3. Manual fire alarm boxes
4. Other approved types of automatic fire detection devices or suppression systems.
5. In Group B office buildings, corridor walls and ceilings need not be of fire-resistant construction within office spaces of a single tenant when the space is equipped with an automatic smoke-detection system within the corridor. The actuation of any detector shall activate alarms audible in all areas served by the corridor. The smoke-detection system shall be connected to the building's fire alarm system, where such a system is provided.

Section 907.6.6 is amended by adding a sentence at end of 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.

Section 907.6.6.1 is amended to read as follows:

907.6.6.1 Transmission of alarm signals. Transmission of alarm signals to a supervising station shall be in accordance with NFPA 72. All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a general alarm or zone condition.

Section 909.2 is amended by adding Section 909.2.1 to read as follows:

909.2.1 Smoke-control System for High-Rises. A smoke control system meeting the requirements of Section 909 in the International Fire Code – 2024 Edition and the International Building Code- 2024 Edition shall be provided for high-rise buildings.

Section 910.2 is amended by adding Section 910.2.3 to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 5,000 square feet in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2,3 and 4 liquid and solid Oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings on noncombustible construction containing only noncombustible materials.

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 ~~manual or~~ 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.

Section 912.2 is amended by adding Section 912.2.3 to read as follows:

912.2.3 Hydrant Distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

Section 913.2.1 is amended by adding the following second paragraph and exception to read as follows:

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 at an exterior wall, 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 access 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.

Section 914.3.1 is amended to read as follows, including deletion of the Exception:

914.3.1 Automatic sprinkler system. Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 914.3.2.

> ~~**Exception:** An automatic sprinkler system shall not be required in spaces or areas of telecommunications equipment buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries, and standby engines, provided that those spaces or areas are equipped throughout with an automatic fire detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 1-hour horizontal~~

~~assemblies constructed in accordance with Section 711 of the International Building Code, or both.~~

Section 914.3.1.2 is amended to read as follows:

914.3.1.2 Water Supply to required Fire Pumps. In all buildings that are more than ~~420~~ 120 feet (~~128~~ 36.6 m) in building height, ~~and buildings of Type IVA and IVB construction that are more than 120 feet (36.6 m) in building height,~~ required fire pumps shall be supplied by connections to no fewer than two water mains located in 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 that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.

Section 915 is amended by deleting Section 915 and replacing to read as follows:

~~**915.1 General.** Carbon monoxide (CO) detection shall be installed in new buildings in accordance with Section 915.1.1. Carbon monoxide detection shall be installed in existing buildings in accordance with Section 1103.9.~~

~~**Exception:** Carbon monoxide detection is not required in Group S, Group F and Group U occupancies that are not normally occupied.~~

~~**915.1.1 Where required.** Carbon monoxide detection shall be installed in the locations specified in Section where any of the following conditions exist.~~

~~1. In buildings that contain a CO source.~~
~~2. In buildings that contain or are supplied by a CO-producing forced-air furnace.~~
~~3. In buildings with attached private garages.~~
~~4. In buildings that have a CO-producing vehicle that is used within the building.~~

~~**915.2 Locations.** Carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3~~

~~**915.2.1 Dwelling units.** Carbon monoxide detection shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a CO source is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.~~

~~**915.2.2 Sleeping units.** Carbon monoxide detection shall be installed in sleeping units.~~

Exception: Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom does not contain a CO source and is not served by a CO-producing forced-air furnace.

915.2.3 Group E occupancies. A carbon monoxide system that uses carbon monoxide detectors shall be installed in Group E occupancies. Alarm signals from carbon monoxide detectors shall be automatically transmitted to an on-site location that is staffed by school personnel.

Exception: Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 30 or less.

915.2.4 CO-producing forced-air furnace. Carbon monoxide detection complying with Item 2 of Section shall be installed in all enclosed rooms and spaces served by a fuel-burning, forced-air furnace.

Exceptions:

1. Where a carbon monoxide detector is provided in the first room or space served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.
2. Dwelling units that comply with Section 915.2.1.

915.2.5 Private garages. Carbon monoxide detection complying with Item 3 of Section 915.1.1 shall be installed within enclosed occupiable rooms or spaces that are contiguous to the attached private garage.

Exceptions:

1. In buildings without communicating openings between the private garage and the building.
2. In rooms or spaces located more than one story above or below a private garage.
3. Where the private garage connects to the building through an open-ended corridor.
4. An open parking garage complying with Section 406.5 of the International Building Code or an enclosed parking garage complying with Section 406.6 of the International Building Code shall not be considered a private garage.
5. Dwelling units that comply with Section 915.2.1.

915.2.6 All other occupancies. For locations other than those specified in Sections 915.2.1 through 915.2.5, carbon monoxide detectors shall be installed on the ceiling of enclosed rooms or spaces containing CO-producing devices or served by a CO source forced-air furnace.

Exception: Where environmental conditions prohibit the installation of carbon monoxide detector in an enclosed room or space, carbon monoxide detectors shall be installed in an approved enclosed location contiguous with the room or space that contains a CO source.

915.3 Carbon monoxide detection. Carbon monoxide detection required by Sections 915.1 through 915.2.3 shall be provided by carbon monoxide alarms complying with Section 915.4 or carbon monoxide detection systems complying with Section 915.5.

915.3.1 Alarm limitations. Carbon monoxide alarms shall only be installed in dwelling units and in sleeping units. They shall not be installed in locations where the code requires carbon monoxide detectors to be used.

915.3.2 Fire alarm system required. New buildings that are required by Section 907.2 to have a fire alarm system and by Section 915.2 to have carbon monoxide detectors shall be connected to the fire alarm system in accordance with NFPA 72.

915.3.3 Fire alarm systems are not required. In new buildings that are not required by Section 907.2 to have a fire alarm system, carbon monoxide detection shall be provided by one of the following:

1. Carbon monoxide detectors connected to an approved carbon monoxide detection system in accordance with NFPA 72.
2. Carbon monoxide detectors connected to an approved combination system in accordance with NFPA 72.
3. Carbon monoxide detectors connected to an approved fire alarm system in accordance with NFPA 72.
4. Where approved by the fire code official, carbon monoxide alarms maintained in accordance with the manufacturer's instructions.

915.3.4 Installation. Carbon monoxide detection shall be installed in accordance with NFPA 72 and the manufacturer's instructions.

915.4 Carbon monoxide alarms. Carbon monoxide alarms shall comply with Sections 915.4.1 through 915.4.4.

915.4.1 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring, where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

Exception: Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.

915.4.2 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034.

~~**915.4.3 Combination alarms.** Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 217 and UL 2034.~~

~~**915.4.4 Interconnection.** Where more than one carbon monoxide alarm is required to be installed, carbon monoxide alarms shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.~~

~~**915.5 Carbon monoxide detection systems.** Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 915.5.1 through 915.5.3.~~

~~**915.5.1 General.** Carbon monoxide detectors shall be listed in accordance with UL 2075.~~

~~**915.5.2 Locations.** Carbon monoxide detectors shall be installed in the locations specified in Section 915.2. These locations supersede the locations specified in NFPA 72.~~

~~**915.5.3 Combination detectors.** Combination carbon monoxide/smoke detectors shall be an acceptable alternative to carbon monoxide detectors, provided that they are listed in accordance with UL 268 and UL 2075.~~

~~**915.5.4 Occupant notification.** Activation of a carbon monoxide detector shall annunciate at the control unit and shall initiate audible and visible alarm notification throughout the building.~~

~~**Exception:** Occupant notification is permitted to be limited to the area where the carbon monoxide alarm signal originated and other signaling zones in accordance with the fire safety plan, provided that the alarm signal from an activated carbon monoxide detector is automatically transmitted to an approved on-site location or off-premises location.~~

~~**915.5.5 Duct detection.** Carbon monoxide detectors placed in environmental air ducts or plenums shall not be used as a substitute for the required protection in Section 915.~~

~~**915.6 Maintenance.** Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 72. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.~~

~~**915.6.1 Enclosed parking garages.** Carbon monoxide and nitrogen dioxide detectors installed in enclosed parking garages in accordance with Section 404.1 of the International Mechanical Code shall be maintained in accordance with the manufacturer's instructions and their listing. Detectors that become inoperable or begin producing end-of-life signals shall be replaced.~~

915.1 General. New and existing buildings shall be provided with carbon monoxide (CO) detection in accordance with Sections 915.2 through 915.5.

915.2 Where required. Carbon monoxide detection shall be provided in interior spaces, other than dwelling units or sleeping units, that are exposed to a carbon monoxide source in accordance

with Sections 915.2.1 through 915.2.3. Carbon monoxide detection for dwelling units or sleeping units that are exposed to a carbon monoxide source shall be in accordance with Section 915.2.4.

915.2.1 Interior spaces with direct carbon monoxide sources. In all occupancies, interior spaces with a direct carbon monoxide source shall be provided with carbon monoxide detection located in close proximity to the direct carbon monoxide source and in accordance with Section 915.3.

Exception: Where environmental conditions in an enclosed space are incompatible with carbon monoxide detection devices, carbon monoxide detection shall be provided in an approved adjacent location.

915.2.2 Interior spaces adjacent to a space containing a carbon monoxide source. In Groups A, B, E, I, M, and R Occupancies, interior spaces that are separated from and adjacent to an enclosed parking garage or an interior space that contains a direct carbon monoxide source shall be provided with carbon monoxide detection if there are communicating openings between the spaces. Detection devices shall be located in close proximity to communicating openings on the side that is furthest from the carbon monoxide source, and in accordance with Section 915.3

Exceptions:

1. Where communicating openings between the space containing a direct carbon monoxide source and the adjacent space are permanently sealed airtight, carbon monoxide detection is not required for the adjacent space.

2. Where the fire code official determines that the volume or configuration of the adjacent interior space is such that dilution or geometry would diminish the effectiveness of carbon monoxide detection devices located in such spaces, detection devices additional to those required by Section 915.2.1 shall be located on the side of communicating openings that is closest to the carbon monoxide source.

915.2.3 Interior spaces with forced-indirect carbon monoxide sources. In all occupancies, interior spaces with a forced-indirect carbon monoxide source shall be provided with carbon monoxide detection in accordance with either of the following:

1. Detection in each space with a forced-indirect carbon monoxide source, located in accordance with Section 915.3.

2. Detection only in the first space served by the main duct leaving the forced-indirect carbon monoxide source, located in accordance with Section 915.3, with an audible and visual alarm signal provided at an approved location.

915.2.4 Dwelling units and sleeping units. Carbon monoxide detection for dwelling units and sleeping units shall comply with Sections 915.2.4.1 and 915.2.4.2.

915.2.4.1 Direct carbon monoxide sources. Where a direct carbon monoxide source is located in a bedroom or sleeping room, or a bathroom attached to either, carbon monoxide detection shall be installed in the bedroom or sleeping room. Where carbon monoxide detection is not installed in bedrooms or sleeping rooms,

carbon monoxide detection shall be installed outside of each separate sleeping area in close proximity to bedrooms or sleeping rooms for either of the following conditions:

1. The dwelling unit or sleeping unit has a communicating opening to an attached, enclosed garage.

2. A direct carbon monoxide source is located in the dwelling unit or sleeping unit outside of bedrooms or sleeping rooms.

915.2.4.2 Forced-indirect carbon monoxide sources. Bedrooms or sleeping rooms in dwelling units or sleeping units that are exposed to a forced-indirect carbon monoxide source shall be provided with carbon monoxide detection in accordance with Section 915.2.4.1 or Section 915.2.3.

915.3 Location of detection devices. Carbon monoxide detection devices shall be installed in accordance with manufacturer's instructions in a location that avoids dead air spaces, turbulent air spaces, fresh air returns, open windows, and obstructions that would inhibit accumulation of carbon monoxide at the detection location. Carbon monoxide detection in air ducts or plenums shall not be permitted as an alternative to required detection locations.

915.4 Permissible detection devices. Carbon monoxide detection shall be provided by a carbon monoxide detection system complying with Section 915.4.2 unless carbon monoxide alarms are permitted by Sections 915.4.1.

915.4.1 Carbon monoxide alarms. Carbon monoxide alarms complying with Sections 915.4.1.1 through 915.4.1.3 shall be permitted in lieu of a carbon monoxide detection system in both of the following:

1. Dwelling units and sleeping units.

2. Locations other than dwelling units or sleeping units, where approved, provided that the manufacturer's instructions do not prohibit installation in locations other than dwelling units or sleeping units and that the alarm signal for any carbon monoxide alarm installed in a normally unoccupied location is annunciated by an audible and visual signal in an approved location.

915.4.1.1 Power source. In buildings with a wired power source, carbon monoxide alarms shall receive their primary power from a permanent connection to building wiring, with no disconnecting means other than for overcurrent protection, and shall be provided with a battery backup. In buildings without a wired power source, carbon monoxide alarms shall be battery powered.

Exception: For existing buildings not previously required to have carbon monoxide alarms permanently connected to a wired power source, existing battery-powered and plug-in with battery backup carbon monoxide alarms shall be permitted to remain in service. When replaced, replacement with battery-powered and plug-in with battery backup carbon monoxide alarms shall be permitted.

915.4.1.2 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034. Combination carbon monoxide/smoke alarms shall also be listed in accordance with UL 217.

915.4.1.3 Interconnection. Where more than one carbon monoxide alarm is installed, actuation of any alarm shall cause all of the alarms to signal an alarm condition.

915.4.2 Carbon monoxide detection systems. Carbon monoxide detection systems shall be installed in accordance with NFPA 72.

915.4.2.1 Fire alarm system integration. Where a building fire alarm system or combination fire alarm system, as defined in NFPA 72, is installed, carbon monoxide detection shall be provided by connecting carbon monoxide detectors to the fire alarm system. Where a building fire alarm system or a combination fire alarm system is not installed, carbon monoxide detection shall be provided by connecting carbon monoxide detectors to a carbon monoxide detection system complying with NFPA 72.

915.4.2.2 Listings. Carbon monoxide detectors shall be listed in accordance with UL 2075. Combination carbon monoxide/smoke detectors shall be listed in accordance with UL 268 and UL 2075.

915.4.2.3 Alarm notification. For other than Group E Occupancies, activation of a carbon monoxide detector shall initiate alarm notification in accordance with any of the following:

1. An audible and visible alarm notification throughout the building and at the control unit.

2. Where specified in an approved fire safety plan, an audible and visible alarm in the signaling zone where the carbon monoxide has been detected, and in other signaling zones specified in the fire safety plan, and at the control unit.

3. Where a sounder base is provided for each detector, an audible alarm at the activated carbon monoxide detector and an audible and visible alarm at the control unit.

For Group E Occupancies having an occupant load of 30 or less, alarm notification shall be provided in an on-site location staffed by school personnel or in accordance with the notification requirements for other occupancies. For Group E occupancies having an occupant load of more than 30, an audible and visible alarm shall be provided in an on-site location staffed by school personnel.

915.5 Maintenance. Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 72 and the manufacturer's instructions. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

Chapter 10 is amended by replacing all references to "fire code official" with "city manager or designee."

Section 1006.2.1; change Exception #3 to read as follows:

1006.2.1 Egress based on occupant load and common path of egress travel distance. Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumulative occupant load from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

Exceptions:

1. The number of exits from foyers, lobbies, vestibules or similar spaces need not be based on cumulative occupant loads for areas discharging through such spaces, but the capacity of the exits from such spaces shall be based on applicable cumulative occupant loads.

2. Care suites in Group I-2 occupancies complying with Section 407.4 of the International Building Code.

3. Unoccupied rooftop mechanical rooms and penthouses are not required to comply with the common path of egress travel distance measurement.

Table 1010.2.4; amend Table – Manual Bolts, Automatic Flush Bolts and Constant Latching Bolts on the inactive Leaf of A pair of Doors; to add Group M and A occupancies as follows:

Add Group M to Line item #1 in Table 1010.2.4: Group B, F, M or S occupancies with an occupant load less than 50. (Remainder unchanged)

Add Group A and M to line #2 in Table 1010.2.4: Group A, B, F, M, or S occupancies where the building is equipped (Remainder unchanged)

Section 1015.8 is amended to read as follows:

1015.8 Window openings. Windows in Group R-2 and R-3 buildings including *dwelling units*, where the bottom of the clear opening of an operable window is located less than 36 inches (914 mm) above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

1. Where the bottom of the clear opening of the window is located more than 72 inches (1829 mm) and less than ~~75~~ 55 feet (~~22 860~~ 16,764 mm) above the finished grade or other surface below on the exterior of the building, the window shall comply with one of the following:

    1.1 Operable windows where the openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position, provided that the

opening is not required for emergency escape or rescue.

1.2 Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F2090.

1.3 Operable windows where the openings are provided with window opening control devices that comply with ASTM F2090. The window opening control device, after operation to release the control device, allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1031.3.1 for emergency escape and rescue openings.

2. Where the bottom of the clear opening of the window is located ~~75~~ 55 feet (~~22,860~~ 16,764 mm) or more above the finished grade or other surface below on the exterior of the building, the window shall comply with one of the following:

2.1 Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F2090.

2.2 Operable windows where the openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.

2.3 Window fall prevention devices that comply with ASTM F2006.

Section 1020.2 is amended by adding Exception 6 to read as follows:

1020.2 Construction. Corridors shall be fire-resistance rated in accordance with Table 1020.2. The corridor walls required to be fire-resistance rated shall comply with Section 708 of the International Building Code for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has not less than one door opening directly to the exterior, and rooms for assembly purposes have not less than one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling unit or sleeping unit in an occupancy in Groups I-1 and R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B that is a space requiring only a single means of egress complying with Section 1006.2.
5. Corridors adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 705.5 of the International

Building Code and unprotected openings are permitted by Table 705.9 of the International Building Code.

6. In unsprinklered Group B office buildings, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector shall activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors must be connected to an approved automatic fire alarm system where such system is provided.

1030.1.1.1 Spaces under grandstands and bleachers; Delete this section.

Section 1103.5.1 is amended to read as follows:

1103.5.1 Group A-2. Where alcoholic beverages are consumed in a Group A-2 occupancy having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1. Fire sprinkler system installation shall be completed within 24 months from date of notification by the fire code official.

Section 1103.5 is amended by adding Section 1103.5.6 to read as follows:

1103.5.6 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.

Section 1103.7.5.1 is amended by deleting Exceptions 2, 3, 3.1, 3.2 and 3.3.

1103.7.5.1 Group R-1 hotel and motel manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing Group R-1 hotels and motels more than one story in height or with more than 20 dwelling units or sleeping units in aggregate.

Exceptions:

1. A manual fire alarm system is not required in buildings less than two stories in height where all dwelling units, sleeping units, attics and crawl spaces are separated by 1-hour fire-resistance-rated construction and each sleeping unit has direct access to a public way, egress court or yard.
2. ~~A manual fire alarm system is not required in buildings not more than three stories in height with not more than 20 dwelling units or sleeping units in aggregate and equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~
3. ~~Manual fire alarm boxes are not required throughout the building where the following conditions are met:~~

~~3.1 The building is equipped throughout with an~~

~~automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~

~~3.2 The notification appliances will activate upon sprinkler water flow.~~

~~3.3 Not less than one manual fire alarm box is installed at an approved location.~~

Section 1103.7.7 is amended by adding Section 1103.7.7 and 1103.7.7.1 to read as follows:

1103.7.7 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.

1103.7.7.1 Communication requirements. Refer to Section 907.6.6 for applicable requirements.

Section 1103.9 is amended by deleting and changing to read as follows:

~~**1103.9 Carbon monoxide detection.** Carbon monoxide detection shall be installed in existing buildings where any of the conditions identified in Section 915.1.1 exist. Carbon monoxide alarms shall be installed in the locations specified in Section 915.2 and the installation shall be in accordance with Section 915.4.~~

~~**Exceptions:**~~

~~1. Carbon monoxide alarms are permitted to be solely battery operated where the code that was in effect at the time of construction did not require carbon monoxide detectors to be provided.~~

~~2. Carbon monoxide alarms are permitted to be solely battery operated in dwelling units that are not served from a commercial power source.~~

~~3. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms.~~

1103.9 Carbon monoxide detection. Carbon monoxide detection shall be installed in existing buildings in accordance with Section 915.

Section 1201.4 is amended by adding Section 1201.4 to read as follows:

1201.4 Electrical Shutdown. Energy systems including solar photovoltaic power systems,

stationary fuel cell power systems, or electrical energy storage systems shall have a remote power shut down box. The location shall be at an *approved* location. The box shall only be accessible by the fire department and shall be keyed to the fire department Key Box as outlined in Section 506.

Section 1203.1.3 is amended to read as follows:

1203.1.3. Installation. Emergency power systems and standby power systems shall be installed in accordance with the International Building Code, NFPA 70, NFPA 110, and NFPA 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

Section 1207.2 is amended to read as follows:

1207.2 Commissioning, decommissioning, operation and maintenance. Commissioning, decommissioning, operation and maintenance shall be conducted in accordance with this section. In addition to the ordinary inspection and test requirements that buildings, structures and parts thereof are required to undergo, Energy Storage Systems subject to the provisions of Section 1207 shall undergo special inspections and tests sufficient to verify the proper commissioning of the Energy Storage System in its final installed condition. The design submission accompanying the construction documents shall clearly detail procedures and methods to be used and the items subject to such inspections and tests. Such commissioning shall be in accordance with generally accepted engineering practice and, where possible, based on published standards for the particular testing involved. The special inspections and tests required by this section shall be conducted under the same terms as in Chapter 17 of the International Building Code.

2304.1 Supervision of Dispensing. The dispensing of fuel at motor fuel-dispensing facilities shall be ~~conducted by a qualified attendant or shall be under the supervision of a qualified attendant at all times or shall be~~ in accordance with ~~Section 2204.3.~~ 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.

Section 2401.2 deleted.

~~***Section 2401.2 Nonapplicability.*** This chapter shall not apply to spray finishing utilizing flammable or combustible liquids that do not sustain combustion, including:~~

~~1. Liquids that do not have a fire point when tested in accordance with ASTM D92.~~

~~2. Liquids with a flashpoint greater than 95°F (35°C) in a water-miscible solution or~~

~~dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight.~~

Section 3307.1 is amended to read as follows:

Section 3307.1 Required access. Approved vehicle access for firefighting and emergency response shall be provided to all construction or demolition sites. Vehicle access shall be provided to within ~~100~~ 50 feet (~~30 480~~ 15 240 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting an 85,000 lb. vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available. When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time of which construction has progressed beyond completion of the foundation of any structure. Whenever the connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign.

Section 3307.1.2 is amended to read as follows:

3307.1.2 Stairways required. Where building construction exceeds 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be provided. As construction progresses, such stairways shall be extended to within one floor of the highest point of construction having secured decking or flooring. Whenever the stairways are not visible to approaching fire apparatus, the stairways' locations shall be indicated by an *approved* sign.

Section 3307.5.3 is amended by adding section 3307.5.3 to read as follows:

3307.5.3 Standpipe Signage. Whenever the standpipes are not visible to approaching fire apparatus, locations shall be indicated by an *approved* sign.

Section 4104.2 is amended to read as follows:

4104.2 Open-flame Cooking Devices. Charcoal burners and other open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be operated or located on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family dwellings where 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 pounds (5 containers). All LP-gas containers shall be stored outside, as per Chapter 61.
2. Where buildings, balconies and decks are protected by an approved *automatic sprinkler system*, and 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). All LP-gas containers shall be stored outside, as per Chapter 61.

3. LP-gas cooking devices having LP-gas containers with a water capacity not greater than 2-1/2 pounds [nominal 1-pound (0.454 kg) LP-gas capacity].

Section 5601.1.3 is amended to read in its entirety as follows:

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

Exceptions:

Only when approved for fireworks displays, the storage and handling of fireworks as allowed in Section 5604 and 5608.

2. ~~Manufacture, assembly and testing of fireworks as allowed in Section 5605.~~

~~3.~~2. The use of fireworks for approved fireworks displays as allowed in Section 5608.

~~4. The possession, storage, sale, handling and use of specific types of Division 1.4 fireworks where allowed by applicable laws, ordinances, and regulations, provided that such fireworks and facilities comply with the 2006 edition of NFPA 1124, CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, as applicable for consumer fireworks.~~

Section 5703.6 is amended to read as follows:

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

Section 5704.2.9.5 is amended to read as follows:

5704.2.9.5 Above-ground tanks inside of buildings. Above-ground tanks inside of buildings shall comply with Sections 5704.2.9.5.1, 5704.2.9.5.2 through 5704.2.9.5.3. Storage of flammable or combustible liquids or hazardous materials in above-ground tanks inside of buildings is prohibited within limits established by law in the adopting ordinance, as the limits of districts in which such storage is prohibited. The storage of flammable or combustible liquids or hazardous materials in aboveground tanks is prohibited in residential areas.

Section 5704.2.9.5 is amended by adding Section 5704.2.9.5.3 to read as follows:

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.

Section 5704.2.9.6 is amended to read as follows:

5704.2.9.6. Above-ground tanks outside of buildings. Above-ground tanks outside of buildings shall comply with Sections 5704.2.9.6.1 through 5704.2.9.6.3. The storage of flammable or combustible liquids or hazardous materials in above-ground tanks is prohibited in residential areas.

Section 5704.2.11.1 is amended by adding a paragraph 4 to read as follows:

5704.2.11.1 Location. Flammable and combustible liquid storage tanks located underground, either outside or under buildings, shall be in accordance with all of the following:

1. Tanks shall be located with respect to existing foundations and supports such that the loads carried by the latter cannot be transmitted to the tank.

2. The distance from any part of a tank storing liquids to the nearest wall of a basement, pit, cellar or lot line shall be not less than 3 feet (914 mm).

3. A minimum distance of 1 foot (305 mm), shell to shell, shall be maintained between underground tanks.

4. The storage of flammable or combustible liquids or hazardous materials in underground tanks is prohibited in residential areas.

Section 5704.2.11.4 is amended to read as follows:

5704.2.11.4 Leak Prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.4.1 ~~and 5704.2.11.4.2~~ through 5704.2.11.4.3. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

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.

Section 5704.2.11.4 is amended by adding Section 5704.2.11.4.3 to read as follows:

5704.2.11.4.3 Observation Wells. Approved sampling tubes of a minimum 4 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling tube at the corners of the excavation with a minimum of 4 tubes. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are required.

Section 5704.3.8 is amended to read as follows:

5704.3.8 Liquid storage warehouses. ~~Buildings used for storage of flammable or combustible liquids in quantities exceeding those set forth in Section 5704.3.4 for control areas and Section 5704.3.7 for liquid storage rooms shall comply with Sections 5704.3.8.1 through 5704.3.8.5 and shall be constructed and separated as required by the International Building Code.~~

The storage of flammable liquids as specified in Chapter 57 as "Liquid Storage Warehouses" is prohibited.

Section 5707.4 is amended to read as follows:

5707.4 Mobile Fueling Areas. During fueling, the mobile fueling vehicle and point of connection to the vehicle shall not be located on public streets, public ways, or inside buildings. Fueling on the roof level of parking structures or other buildings is prohibited.

Mobile fueling sites shall be restricted to commercial, industrial, governmental, or manufacturing, where the parking area having such operations is primarily intended for employee vehicles. Mobile fueling shall be conducted for fleet fueling or employee vehicles only, not the general public. Commercial sites shall be restricted to office-type or similar occupancies that are not primarily intended for use by the public.

Section 6103.2.1 is amended by adding a new 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 device shall be separated from other containers by a distance of not less than 20 feet.

Section 6104.2 is amended by numbering the existing Exception as "1" and adding an exception 2 to read as follows:

6104.2 Maximum capacity within established limits. For the protection of heavily populated or congested areas, storage of liquified petroleum gas shall not exceed an aggregate capacity in any one installation of 2,000 gallons (7570L) within the limits established by law as set forth in the fire code adoption ordinance or other regulation adopted by the jurisdiction.

Exception:

1. In particular installations, this capacity limit shall be determined by the fire code official, after consideration of special features such as topographical conditions, nature of occupancy, and proximity to buildings, capacity of proposed LP-gas containers, degree of fire protection to be provided, and capabilities of the local fire department.

2. Except as permitted in Sections 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

Section 6104.3 is amended by adding a new Section 6104.3.3 to read as follows:

6104.3.3 Spas, Pool Heaters, and Other Listed Devices. Where natural gas service is not available, an LP-gas container is allowed to be used to supply spa and pool heaters or other listed devices. Such a container shall not exceed 250-gallon water capacity per lot. See Table 6104.3 for the location of containers.

Exception: Lots where LP-gas can be off-loaded wholly on the property where the tank is located may install up to 500 gallons above ground or 1,000 gallons underground in approved containers.

Section 6107.4 is amended to read as follow:

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 ~~NFPA 58~~ Section 312.

Section 6109.13 is amended by deleting the "Exception."

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.

~~**Exception:** Vehicle impact protection shall not be required for protection of LP-gas containers where the containers are kept in lockable, ventilated cabinets of metal construction.~~

Appendix M "High-Rise Buildings – Retroactive Automatic Sprinkler Requirement" of the Fire Code is adopted to read as follows:

APPENDIX M – HIGH-RISE BUILDINGS – RETROACTIVE AUTOMATIC SPRINKLER REQUIREMENT

M101.1 Scope. An automatic sprinkler system shall be installed in all existing high-rise buildings in accordance with the requirements and compliance schedule of this appendix.

M102.1 High-Rise buildings. An automatic sprinkler system shall be installed in accordance with Section 903.3.1.1 of the International Fire Code shall be provided throughout existing high-rise buildings.

Exceptions:

1. Airport traffic control towers

2. Open parking structures

3. Group U occupancies

4. Occupancies in Group F-2

M103.1 Compliance Schedule. Building owners shall file a compliance schedule with the fire code official not later than 365 days after the effective date of this code. The compliance schedule shall not exceed 12 years for an automatic sprinkler system retrofit.