ORDINANCE NO. 6851

AN ORDINANCE AMENDING CHAPTER 21, "FIRE PREVENTION," OF THE CODE OF ORDINANCES OF THE CITY OF GARLAND, TEXAS; PROVIDING A PENALTY UNDER THE PROVISIONS OF SEC. 10.05 OF THE CODE OF ORDINANCES OF THE CITY OF GARLAND, TEXAS; PROVIDING A SAVINGS CLAUSE AND A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GARLAND, TEXAS:

Section 1

Section 21.01 of Chapter 21, "Fire Prevention," of the Code of Ordinances of the City of Garland, Texas is hereby amended to read as follows:

Sec. 21.01 Adoption of the International Fire Code

The International Fire Code ("the Fire Code"), 2015 edition, is hereby adopted by reference. A copy shall be kept on file in the office of the City Secretary. Unless deleted, amended, expanded or otherwise changed in this Code of Ordinances, all provisions of the Fire Code as adopted in this section shall be fully applicable and binding and of full force and effect within the City.

Section 2

Section 21.03 of Chapter 21, "Fire Prevention," of the Code of Ordinances of the City of Garland, Texas is hereby amended to read as follows:

Sec. 21.03 Amendments made to the International Fire Code

The International Fire Code ("the Fire Code") is amended in the following respects:

Section 102.1 is amended 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 where 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 102.4 is amended to read as follows:

102.4 Application of building code. The design and construction of new structures shall comply with this code and all other codes as applicable, and any *alterations*, additions, changes in use or changes in structures required by the Fire Code, which are within the scope of this and other codes, shall be made in accordance therewith.

Section 104.1 is amended by adding a new Section 104.12 to read as follows:

104.1 General. The *fire code official* is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code.

104.12. Fire Prevention Bureau Personnel and Police. The Fire Chief and members of the fire prevention bureau shall have the power to issue citations for violations of this code. When requested to do so by the Fire Chief, the Chief of Police is authorized to assign such available police officers as necessary to assist the fire department in enforcing the provisions of this code.

Section 105.2 is amended by adding a new Section 105.2.5 to read as follows:

105.2 Application. Application for a permit required by this code shall be made to the *fire code official* in such form and detail as prescribed by the *fire code official*. Applications for permits shall be accompanied by such plans as prescribed by the *fire code official*.

105.2.5 Fees. Fees shall be collected as follows.
Exception: Permit fees for civic or charitable events or functions may be waived with the approval of the Fire Chief or the Fire Marshal.

Permit fees for operational permits shall be as follows:

Fire Code	Required Operational Permit	Fee
105.6.2	Amusement buildings (valid for 14 days)	$100.00
105.6.5	Carnivals and fairs (valid for 14 days)	$100.00
105.6.9	Compressed gases (annual)	$100.00
105.6.11	Cryogenic fluids (annual)	$100.00
105.6.15	Explosives (annual)	$100.00
105.6.17	Flammable and combustible liquids (annual)	$100.00
105.6.19	Fruit and crop ripening (annual)	$100.00
105.6.21	Hazardous materials (annual)	$100.00
105.6.23	High-piled storage (annual)	$100.00
105.6.24	Hot work operations (valid for 14 days)	$100.00
105.6.27	Liquid-or gas-fueled vehicles or equipment in assembly buildings (per event)	$100.00
105.6.28	LP-gas (annual)	$100.00
105.6.32	Open burning (per day)	$1000.00
105.6.34	Open flames and candles (per event)	$100.00
105.6.38	Pyrotechnic special effects material (per display)	$100.00
105.6.41	Repair garages (annual)	$100.00
105.6.45	Temporary membrane structures and tents (valid for 14 days)	$100.00

Permit fees for construction permits shall be as follows:

Fire Code	Required Construction Permit	Fee
105.7.1	Automatic fire-extinguishing systems except fire sprinklers (per system)	$100.00
Fire Sprinkler Systems*		
105.7.1	Fire sprinkler systems, permitted by riser (1-19 heads)	$150.00
	Fire sprinkler systems, permitted by riser (20-100 heads)	$200.00
	Fire sprinkler systems, permitted by riser (101-300 heads)	$250.00
	Fire sprinkler systems, permitted by riser (301-1000 heads)	$300.00
	Fire sprinkler systems, permitted by riser (1001+ heads)	$300.00 + $1 per head over

		1000
* Wet and dry systems must be permitted individually		
105.7.1	Fire Underground Supply line / Remote FDC	$100.00
105.7.5	Emergency responder radio coverage system	$50.00
Fire Alarm Systems		
105.7.6	Fire alarm and detection systems and related equipment (1-24 devices)	$150.00
	Fire alarm and detection systems and related equipment (25-100 devices)	$200.00
	Fire alarm and detection systems and related equipment (101-200 devices)	$250.00
	Fire alarm and detection systems and related equipment (201+ devices)	$300.00
105.7.7	Fire pumps and related equipment	$100.00
105.7.8	Flammable and combustible liquids	$100.00
105.7.9	Gates and barricades across fire apparatus access roads	$50.00
105.7.12	LP-gas	$100.00
105.7.14	Smoke control or smoke exhaust systems	$100.00
105.7.15	Solar photovoltaic power systems	$50.00
105.7.17	Standpipe systems	$100.00
105.7.19	Electronic access control systems.	$150.00

If plans need correction, there is no fee for the first re-submittal. If more than one resubmittal is required, a fee of $100.00 shall be assessed for each re-submittal.

If the initial acceptance test fails, a second acceptance test will be conducted at a charge of $100.00. Each additional re-test will be assessed a fee of $500.00 per test.
A request for a visual inspection prior to the acceptance test will be assessed an additional fee of $100.00 per inspection.

Corrected documents. Where field conditions necessitate any change from the approved construction documents, the Fire Code Official shall have the authority to require the corrected construction documents to be submitted for approval at a flat rate of $100.00.

The Bureau of Fire Prevention shall have the authority to inspect all businesses annually:

Annual Inspection fees shall be as follows:

0 – 2,000 square feet	$50
2,001 – 4,999 square feet	$75
5,000 – 19,999 square feet	$100
20,000 – 99,999 square feet	$125
100,000 – 249,000 square feet	$150
250,000 – 499,999 square feet	$200
500,000 + square feet	$250
Additional tenant spaces per building	$25 per tenant
Maximum fee per building	$350

A facility that does not meet applicable requirements at the first inspection shall be re-inspected and the following fees shall apply.

1st Re-Inspection	Free
2nd Re-Inspection	$35
3rd and Subsequent Re-Inspections	$50

The Bureau of Fire Prevention shall inspect each site for which a new certificate of occupancy has been issued. The inspection shall take place within 60 days of the approval of the certificate of occupancy. An inspection fee of $50.00 shall be assessed. A facility that does not meet applicable requirements at the first inspection shall be re-inspected. The first re-inspection shall be free of charge. The second reinspection shall be $35.00. The third and all subsequent re-inspections shall be $50.00 per inspection.

Section 105.6 is amended to read as follows:

105.6 Required operational permits. The *fire code official* is authorized to issue operational permits for the operations set forth in Sections 105.6.1 through 105.6.48.

Section 105.6.1 is deleted

105.6.2 Amusement buildings. An operational permit is required to operate a special amusement building.

Sections 105.6.3 and 105.6.4 are deleted.

105.6.5 Carnivals and fairs. An operational permit is required to conduct a carnival or fair.

Sections 105.6.6 thru 105.6.8 are deleted.

105.6.9 Compressed gases. An operational permit is required for the storage, use or handling at *normal temperature and pressure* (NTP) of *compressed gases* in excess of the amounts listed in Table 105.6.9.

Exception: Vehicles equipped for and using *compressed gas* as a fuel for propelling the vehicle.

TABLE 105.6.9
PERMIT AMOUNTS FOR COMPRESSED GASES

TYPE OF GAS	AMOUNT (cubic feet at NTP)
Corrosive	200
Flammable (except cryogenic fluids and liquefied petroleum gases)	200
Highly toxic	Any Amount
Inert and simple asphyxiant	6,000
Oxidizing (including oxygen)	504
Pyrophoric	Any Amount
Toxic	Any Amount

For SI: 1 cubic foot = 0.02832 m3.
a. For carbon dioxide used in beverage dispensing applications, see Section 105.6.4.

Section 105.6.10 is deleted.

105.6.11 Cryogenic fluids. An operational permit is required to produce, store, transport on site, use, handle or dispense *cryogenic fluids* in excess of the amounts listed in Table 105.6.11.

Exception: Permits are not required for vehicles equipped for and using *cryogenic fluids* as a fuel for propelling the vehicle or for refrigerating the lading.

TABLE 105.6.11
PERMIT AMOUNTS FOR CRYOGENIC FLUIDS

TYPE OF CRYOGENIC FLUID	INSIDE BUILDING (gallons)	OUTSIDE BUILDING (gallons)
Flammable	More than 1	60
Inert	60	500
Oxidizing (includes oxygen)	10	50
Physical or health hazard not indicated above	Any Amount	Any Amount

For SI: 1 gallon = 3.785 L.

Sections 105.6.12 thru 105.6.14 are deleted.

105.6.15 Explosives. An operational permit is required for the manufacture, storage, handling, sale or use of any quantity of *explosives*, *explosive materials*, fireworks or pyrotechnic special effects within the scope of Chapter 56.

Exception: Storage in Group R-3 occupancies of smokeless propellant, black powder and small arms primers for personal use, not for resale and in accordance with Section 5606.

Section 105.6.16 is deleted.

105.6.17 Flammable and combustible liquids. An operational permit is required:

1. To use or operate a pipeline for the transportation within facilities of flammable or *combustible liquids*.
   This requirement shall not apply to the offsite transportation in pipelines regulated by the Department of Transportation (DOTn) nor does it apply to piping systems.
2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:

   1.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the *fire code official*, would cause an unsafe condition.
   1.2. The storage or use of paints, oils, varnishes or similar flammable mixtures where such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.

3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil burning equipment.

4. To store, handle or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-

dispensing facilities or where connected to fuel-burning equipment.

Exception: Fuel oil and used motor oil used for space heating or water heating.

5. To remove Class I or II liquids from an underground storage tank used for fueling motor vehicles by any means other than the *approved*, stationary on-site pumps normally used for dispensing purposes.

6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and *combustible liquids* are produced, processed, transported, stored, dispensed or used.

7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or *combustible liquid* tank.

8. To change the type of contents stored in a flammable or *combustible liquid* tank to a material that poses a greater hazard than that for which the tank was designed and constructed.

9. To manufacture, process, blend or refine flammable or *combustible liquids*.

10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments.

11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental or manufacturing establishments. Above ground storage and dispensing tanks greater than 299 gallons shall be permitted by the fire department.

Section 105.6.18 is deleted.

105.6.19 Fruit and crop ripening. An operational permit is required to operate a fruit- or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.

Section 105.6.20 is deleted.

105.6.21 Hazardous materials. An operational permit is required to store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed in Table 105.6.21.

Section 105.6.22 is deleted.

105.6.23 High-piled storage. An operational permit is required to use a building or portion thereof as a *high piled storage area* exceeding 500 square feet (46 m2).

105.6.24 Hot work operations. An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.

2. Use of portable hot work equipment inside a structure.
   Exception: Work that is conducted under a construction permit.

4. Fixed-site hot work equipment, such as welding booths.

5. Hot work conducted within a wildfire risk area.

6. Application of roof coverings with the use of an open-flame device.

7. Where *approved*, the *fire code official* shall issue a permit to carry out a hot work program. This program allows *approved* personnel to regulate their facility's hot work operations. The *approved* personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in Chapter 35. These permits shall be issued only to their employees or hot work operations under their supervision.

Sections 105.6.25 and 105.6.26 are deleted.

105.6.27 Liquid-or gas-fueled vehicles or equipment in assembly buildings. An operational permit is required to display, operate or demonstrate liquid- or gas-fueled vehicles or equipment in assembly buildings.

Section 105.6.28 is amended to read as follows:

105.6.28 LP-gas. An operational permit is required for:

1. Storage and use of LP-gas.
   Exception: A permit is not required for individual containers with a 20 pound (9.0 Kg) water capacity or less serving occupancies in Group R-3.
2. Operation of cargo tankers that transport LP-gas.

Sections 105.6.29 thru 105.6.31 are deleted.

Section105.6.32 is amended to read as follows:

105.6.32 Open burning. An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be adhered to.

Exception: *Recreation residential fires* in accordance with Section 307.4.2.1 of this code.

Section 105.6.33 is deleted.

105.6.34 Open flames and candles. An operational permit is required to use open flames or candles in connection with E, and I occupancies.

Sections 105.6.35 thru 105.6.37 are deleted.

105.6.38 Pyrotechnic special effects material. An operational permit is required for use and handling of pyrotechnic special effects material.

Sections 105.6.39 thru 105.6.40 are deleted.

105.6.41 Repair garages. An operational permit is required for operation of repair garages.

Sections 105.6.42 thru 105.6.44 are deleted.

105.6.45 Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure, a temporary stage canopy or a tent having an area in excess of 400 square feet (37 m2).

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Tents open on all sides, which comply with all of the following:

2.1. Individual tents having a maximum size of 700 square feet (65 m2).

2.2. The aggregate area of multiple tents placed side by side

without a fire break clearance of not less than 12 feet (3,658 mm) shall not exceed 700 square feet (65m2) total.

2.3. A minimum clearance of 12 feet (3,658 mm) to structures and other tents shall be provided.

Sections 105.6.46 thru 105.6.48 are deleted.

Section 105.7 is amended by adding Section 105.7.19 to read as follows:

105.7 Required construction permits. The *fire code official* is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.19.

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

Section 108.1 is amended to read as follows:

108.1 Board of appeals established. Any person aggrieved by any orders, decisions or determinations made by the *fire code official* relative to the application and interpretation under the provisions of this code, shall have the right to make an appeal to the Building and Fire Codes Board created under Section 30.02 of the Code of Ordinances within 30 days from the date of the decision or ruling. Such appeals shall be made by filing with the Secretary of the Board a written notice specifying the grounds therefore. The Fire Code Official shall forthwith transmit to the Board all of the papers constituting the record upon which the action appealed from was made. The Board shall within a reasonable time, but not exceeding 30 days, reverse or affirm, wholly or partly, or modify the decision appealed from and shall make such order or determination as in its opinion ought to be made provided, however, all such decisions of the Board shall be by concurring vote of at least three (3) members, but not less than a majority of the appointed members present. Every decision shall be promptly filed in the office of the Fire Chief of the fire department and the City secretary. It shall be the duty of the Fire Chief to enforce the decision of the Board. Proposed amendments to the Fire Code may be submitted to the secretary of the Board by any interested

person who desires to maintain and improve the regulations contained in the Fire Code. Recommendations of the Fire Chief and the Fire Code Official shall be considered by the Board in relation to any requested amendments. All decisions and recommendations of the Board with respect to any Fire Code amendments shall require a concurring vote of two-thirds (2/3) of the appointed membership. The Chairman of the Board, or members that he may designate, may represent the Board at public hearings by the City Council on amendments to this code. During the pendency of the request to the Board, the decision appealed from will be stayed unless the Fire Code Official determines that the stay would create or allow the continuance of a substantial fire hazard threatening the lives or property of persons other than the appellant.

Section 109.4 is amended to read as follows:

109.4 Violation penalties. Any persons, firm, or corporation violating any of the provisions or terms of this Ordinance shall be guilty of a misdemeanor and, upon conviction, shall be subject to, a fine not to exceed TWO THOUSAND AND N0/100 ($2,000.00) DOLLARS for each offense. Each and every day any such violation shall continue shall be deemed a separate offense.

Section 111.4 is amended to read as follows:

111.4. Failure to comply. Any person who shall continue any work after having been served with a stop work order except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine not to exceed TWO THOUSAND AND N0/100 ($2,000.00) DOLLARS for each offense. Each and every day such violation shall continue shall be deemed to constitute a separate offense.

Section 113.3 is amended to read as follows:

113.3 Work commencing before permit issuance. Any person who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall be subject to an additional fee twice that of the normal required permit fees, which shall be in addition to the required permit fees.

Section 202 is amended by amending or adding the following 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. This group may include but not be limited to the following:

- Dialysis centers
- Procedures involving sedation
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

ATRIUM. An opening connecting three or more stories… *{Remaining text unchanged}*

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

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

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

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

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

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (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 for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

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

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

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

The following are not considered an upgrade or replacement:

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

Section 307.1.1 is amended to read as follows:

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

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

Section 307.2 is amended to read as follows:

307.2 Permit Required. A permit shall be obtained from the *fire code official* in accordance with Section 105.6 prior to kindling

a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning. 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. The fire code official is authorized to order the extinguishment by the permit holder, another person responsible or the fire department of open burning that creates or adds to a hazardous or objectionable situation.

Section 307.4 is amended to read as follows:

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

Exceptions:

1. Fires in *approved* containers that are not less than 15 feet (4,572 mm) from a structure.
2. The minimum required distance from a structure shall be 25 feet (7620 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.

Section 307.4.2 is amended by adding new Section 307.4.2.1 to read as follows:

307.4.2.1 Residential Recreational Fires. In residential zoning recreational fires must be completely contained within a permanently constructed structure with a masonry floor or a commercially manufactured appliance specifically designed for burning. Burning of coal, charcoal, wood, propane or natural gas only is permitted.

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 (3,048 mm) of a structure or combustible material.

Section 307.4 is amended by adding Section 307.4.4 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 Building Code.

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

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 read as follows:

307.5 Attendance. *Open burning*, trench burns, bonfires, *recreational fires*, and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of 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 308.1.4 is to read as follows:

308.1.4 Open-flame Cooking Devices. Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be located or used on combustible balconies, decks, or within 10 feet (3,048 mm) of combustible construction.

Exceptions:

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

3. LP-gas cooking devices having LP-gas container with a water capacity not greater than 21/2 pounds [nominal 1 pound (0.454 kg) LP-gas capacity].

Section 308.1.6.2 is amended to read as follows:

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

Exceptions:

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

Section 308.1.6.3 is amended to read as follows:

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

Section 308.3 is amended to read as follows:

308.3 Group A, E and I occupancies. Open-flame devices shall not be used in a Group A, E, or I occupancy.

Exceptions:

1. Open-flame devices are allowed to be used in the following situations, provided *approved* precautions are taken to prevent ignition of a combustible material or injury to occupants:
    1.1. Where necessary for ceremonial or religious purposes in accordance with Section 308.1.7.
    1.2. On stages and platforms as a necessary part of a performance in accordance with Section 308.3.2.
    1.3. Where candles on tables are securely supported on substantial noncombustible bases and the candle flames are protected.
    1.4 Where necessary for educational or scientific purposes and under the direct supervision of a faculty member.
2. Heat-producing equipment complying with Chapter 6 and the

International Mechanical Code.

3. Gas lights are allowed to be used provided adequate precautions satisfactory to the *fire code official* are taken to prevent ignition of combustible materials.

Section 311.5 is amended to read as follows:

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

Section 401 is amended by adding Section 401.9 to read as follows:

401.9 Fire 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.

Section 403.12.1.2 is amended to read as follows:

403.12.1.2 Duties. In addition to the other requirements of this Fire Code, On-duty fire watch personnel shall have the following responsibilities:

1. Keep diligent watch for fires, obstructions to *means of egress* and other hazards during the time such place is open to the public or such activity is being conducted.
2. Take prompt measures for remediation of hazards and extinguishment of fires that occur.
3. Take prompt measures to assist in the evacuation of the public from the structures.
4. Have fire extinguishing equipment readily available and be trained in its use.
5. Be familiar with facilities for sounding an alarm in the event of a fire.
6. Be provided with at least one approved means for notification of the fire department
7. Their sole duty shall be to perform constant patrols and watch for the occurrence of fire.

Section 403.5 is amended to read as follows:

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

Section 404.2.2 is amended to read as follows:

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

1. The procedure for reporting a fire or other emergency.
2. The life safety strategy including the following:
    2.1. Procedures for notifying occupants, including areas with a private mode alarm system.
    2.2. Procedures for occupants under a defend-in place response.
    2.3. Procedures for evacuating occupants, including those who need evacuation assistance.
3. Site plans indicating the following:
    3.1. The occupancy assembly point.
    3.2. The locations of fire hydrants.
    3.3. The normal routes of fire department vehicle access.
4. Floor plans identifying the locations of the following:
    4.1. Exits.
    4.2. Primary evacuation routes.
    4.3. Secondary evacuation routes.
    4.4. Accessible egress routes.
    4.4.1. Areas of refuge.
    4.4.2. Exterior areas for assisted rescue.
    4.5. Refuge areas associated with *smoke barriers* and *horizontal exits*.
    4.6. Manual fire alarm boxes.
    4.7. Portable fire extinguishers.
    4.8. Occupant-use hose stations.
    4.9. Fire alarm annunciators and controls.
    4.10 Fire extinguishing system controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

Section 405.4 is amended to read as follows:

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

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 is 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.

Section 503.1.1 is amended to read as follows:

503.1.1 Buildings and facilities. *Approved* fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45,720 mm) of all portions of the facility and all portions of the *exterior walls* of the first story of the building as measured by an *approved* route around the exterior of the building or facility. Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten feet (10') wide unobstructed pathway around the external walls of the structure.

Exceptions:

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 503.1.2 is amended to read as follows.

503.1.2 Additional access. The Fire Code Official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factor that

could limit access.
Multifamily complexes and subdivisions shall be provided two points of access. The two points of access shall be a minimum of 140 feet apart.

Section 503.2.1 is amended to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7,315 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4,267 mm).

Exception: Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and *approved* signs are installed and maintained indicating the established vertical clearance when approved.

Section 503.2.2 is amended to read as follows:

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

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 the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities. All designated fire lanes shall be paved in accordance with City of Garland paving standards.

Section 503.3 is amended to read as follows:

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

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

(2) Signs – Signs shall read “NO PARKING FIRE LANE” or "FIRE LANE NO PARKING” and shall be 12” wide and 18” high. Signs shall be painted on a white background with letters and borders in red, using not less than 2” lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6’6”) above finished grade. Signs shall be spaced not more than fifty feet (50’) apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire 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 any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

The operator of the premises shall be responsible for removal of obstructions in a fire lane. Any unauthorized vehicle or object in a fire lane is subject to removal by the operator of the premises in accordance with state law, with the expense of removal and storage to be borne by the registered owner of the vehicle/object.

The fire department and the police department may enforce this section by causing any motor vehicle parked, or other obstruction placed, in violation hereof to be towed or carried away from the premises in the same manner as a vehicle illegally parked on the public street.

> **503.4.1. Traffic calming devices.** Traffic calming devices shall be prohibited unless *approved* by the *fire code official.*

Section 503.4 is amended by adding a new Section 503.4.2 to read as follows:

503.4.2 Loading zone and drive through service. A loading zone or drive through service window cannot coexist with a fire lane. A loading zone or drive through service window shall not be established within a fire lane.

Section 503.6 is amended to read as follows:
503.6. Security gates. The installation of security gates across a fire apparatus access road shall be *approved* by the fire code official. Where security gates are installed, the owner shall provide gates or openings which may be secured with approved Knox locking devices. Gates when provided must open fully in either

direction or be of a sliding or raised arm type. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

The main entry gates serving Group R & I occupancies shall be equipped with an approved automated entry system and be provided with an electronic Knox Key switches as well as a mechanical disconnect to allow for operation of the gate during power failure.

All entry points along the fire lane must be Knox compatible as approved by the Fire Code Official, to permit immediate access by fire personnel and equipment in the event of fire or emergency.

Section 505.1 is amended to read as follows:

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

Exception: R-3 Single Family occupancies shall comply with the requirements of the International Residential Code as amended and adopted by the City of Garland.

Section 506.1 is amended by adding an exception to read as follows:

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the *fire code official* is authorized to require a key box to be installed in an *approved* location. The key box shall be of an *approved* type listed in accordance with UL 1037, and shall contain

keys to gain necessary access as required by the *fire code official*.

Exception: A private residential dwelling is not required to comply with this section, but may voluntarily install an approved key box with the approval of the fire 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 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*.

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 a new 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 603.1.2.1 is amended to read as follows:

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all such tanks shall not exceed 660 gallons (2,498 L).

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

requirements of Chapter 57.

Section 603.3.2.2 is amended to read as follows:

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

Section 604.1 is amended to read as follows:

604.1 General. Emergency power systems and standby power systems required by this code or the *International Building Code* shall comply with Sections 604.1.1 through 604.1.9.

604.1.1 Stationary Generators. Stationary emergency and standby power generators required by this code shall be *listed* in accordance with UL 2200.

604.1.2 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.

604.1.3 through 604.1.8 {No changes to these sections.}

604.1.9 Critical Operations Power Systems (COPS). For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

Section 604.2 is amended to read as follows:

604.2 Where Required. Emergency and standby power systems shall be provided where required by Sections 604.2.1 through 604.2.24 or elsewhere identified in this code or any other referenced code.

604.2.1 through 604.2.3 {No change.}

604.2.4 Emergency Voice/alarm Communications Systems. Emergency power shall be provided for emergency voice/alarm communications systems in the following occupancies, or as specified elsewhere in this code, as required in Section 907.5.2.2.5. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.
Covered and Open Malls, Section 907.2.20 and 914.2.3
Group A Occupancies, Sections 907.2.1 and 907.5.2.2.4.

Special Amusement Buildings, Section 907.2.12.3
High-rise Buildings, Section 907.2.13
Atriums, Section 907.2.14
Deep Underground Buildings, Section 907.2.19

604.2.5 through 604.2.11 {No change.}

604.2.12 Means of Egress Illumination. Emergency power shall be provided for *means of egress* illumination in accordance with Sections 1008.3 and 1104.5.1. (90 minutes)

604.2.13 Membrane Structures. Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. (90 minutes) Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with Section 2702 of the *International Building Code*. (4 hours) Auxiliary inflation systems shall be provided in temporary air-supported and air-inflated membrane structures in accordance with section 3103.10.4.

604.2.14 {No change.}

604.2.15 Smoke Control Systems. Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, as required in Section 909.11:
Covered Mall Building, *International Building Code*, Section 402.7
Atriums, *International Building Code*, Section 404.7
Underground Buildings, *International Building Code*, Section 405.8
Group I-3, *International Building Code*, Section 408.4.2
Stages, *International Building Code*, Section 410.3.7.2
Special Amusement Buildings (as applicable to Group A's), *International Building Code*, Section 411.1
Smoke Protected Seating, Section 1029.6.2.1

604.2.16 {No change.}

604.2.17 Covered and Open Mall Buildings. Emergency power shall be provided in accordance with Section 907.2.20 and 914.2.3.

604.2.18 Airport Traffic Control Towers. A standby power system shall be provided in airport traffic control towers more than 65 ft. in height. Power shall be provided to the following equipment:

1. Pressurization equipment, mechanical equipment and lighting.
2. Elevator operating equipment.
3. Fire alarm and smoke detection systems.

604.2.19 Smokeproof Enclosures and Stair Pressurization Alternative. Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the *International Building Code*, Section 909.20.6.2.

604.2.20 Elevator Pressurization. Standby power shall be provided for elevator pressurization system as required by the *International Building Code*, Section 909.21.5.

604.2.21 Elimination of Smoke Dampers in Shaft Penetrations. Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the *International Building Code*, Section 717.5.3, exception 2.3.

604.2.22 Common Exhaust Systems for Clothes Dryers. Standby power shall be provided for common exhaust systems for clothes dryers located in multistory structures in accordance with the *International Mechanical Code,* Section 504.10, Item 7.

604.2.23 Hydrogen Cutoff Rooms. Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the *International Building Code*, Section 421.8.

604.2.24 Means of Egress Illumination in Existing Buildings. Emergency power shall be provided for *means of egress* illumination in accordance with Section 1104.5 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

604.3 through 604.7 {No change.}

604.8 Energy Time Duration. Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

Exception: Where the system is supplied with natural gas from a utility provider and is approved.

Section 609.2 is amended to read as follows:

609.2 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. Tents, as provided for in Chapter 31.
2. 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/m3

or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m3/s) in accordance with UL 710B.

Additionally, fuel gas and power provided for such cooking appliances shall be interlocked with the extinguishing system, as required by Section 904.12.2. Fuel gas containers and piping/hose shall be properly maintained in good working order and in accordance with all applicable regulations.

Section 704.1 is amended to read as follows:

704.1 Enclosure. Interior vertical shafts including, but not limited to, *stairways*, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in Chapter 11. New floor openings in existing buildings shall comply with the *International Building Code.*

Section 807.3 is amended to read as follows:

807.3 Combustible Decorative Materials. In occupancies in Groups A, E, I, and R-1, and dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall comply with Section 807.4 and shall not exceed 10 percent of the specific wall or ceiling area to which they are attached.

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 807.5.2.3 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 901.4.3 is deleted.

Section 901.4.6 is amended by adding Section 901.4.6.1 to read as follows:

901.4.6.1 Pump and Riser Room. When located on the ground level, the fire pump or sprinkler riser room shall be located at an exterior wall and provided with an exterior fire department access door that is not less than three (3) feet in width and six feet, eight inches (6' 8") 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. The exterior door shall be marked “FIRE RISER ROOM” or “FIRE PUMP ROOM” in accordance with Section 509.1.2.

> **Exception**: When it is necessary to locate the fire sprinkler riser room on other levels, the corridor leading to the fire sprinkler riser room access from the exterior of the building shall be provided with a minimum one hour fire resistance, or as approved by the Building Code Official. Access keys shall be provided in the key box as required by Section 506.1.

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 back flushed when foreign material is present, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.

2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure 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 901.6.3 is amended by adding Section 901.6.3 to read as follows:

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

Section 901.7 is amended to read as follows:

901.7 Systems Out of Service. Where a required *fire protection system* is out of service or in the event of an excessive number of activations, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated or an *approved fire watch* shall be provided for all occupants left unprotected by the shut down until the *fire protection system* has been returned to service.
Where utilized, fire watches shall be provided with not less than one *approved* means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

Section 901.7.1 thru 901.7 remain unchanged.

Section 901.8.2 is amended to read as follows:

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

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

Section 903.1.1 is amended to read as follows:

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

Section 903.2 is amended to read as follows:

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

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

Section 903.2.1 is amended to read as follows:

903.2.1 Group A. An *automatic sprinkler system* shall be provided throughout buildings and portions thereof used as Group A occupancies as provided in this section. For Group A-1, A-2, A-3 and A-4 occupancies, the *automatic sprinkler system* shall be provided throughout the story where the *fire area* containing the Group A-1, A-2, A-3 or A-4 occupancy is located, and throughout all stories from the Group A occupancy to, and including, the *levels of exit discharge* serving the Group A occupancy. For Group A-5 occupancies, the *automatic sprinkler system* shall be provided in the spaces indicated in Section 903.2.1.5.

903.2.1.1 Group A-1. An *automatic sprinkler system* shall be provided for *fire areas* containing Group A-1 occupancies and intervening floors of the building where one of the following conditions exists:

1. The *fire area* exceeds 5000 square feet (464m2).
2. The *fire area* has an *occupant load* of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.
4. The *fire area* contains a multitheater complex.

Section 903.2.1.2 remains unchanged.

Section 903.2.1.3 is amended to read as follows:

903.2.1.3 Group A-3. An *automatic sprinkler system* shall be provided for *fire areas* containing Group A-3 occupancies and intervening floors of the building where one of the following conditions exists:

1. The *fire area* exceeds 5000 square feet (464m2).
2. The *fire area* has an *occupant load* of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

Section 903.2.1.4 is amended to read as follows:

903.2.1.4 Group A-4. An *automatic sprinkler system* shall be provided for *fire areas* containing Group A-4 occupancies and intervening floors of the building where one of the following conditions exists:

1. The *fire area* exceeds 5000 square feet (464m2).
2. The *fire area* has an *occupant load* of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

Sections 903.2.1.5 thru 903.2.2 remain unchanged.

Section 903.2.3 is amended to read as follows:

903.2.3 Group E. An automatic sprinkler system shall be provided throughout buildings containing a Group E occupancy where one of the following conditions exists:

1. Throughout all Group E *fire areas* greater than 5,000 square feet (464 m2) in area.
2. Throughout every portion of educational buildings below the lowest *level of exit discharge* serving that portion of the building.

Exception: An *automatic sprinkler system* is not required in any area below the lowest *level of exit discharge* serving that area where every classroom throughout the building has not fewer than one exterior *exit* door at ground level.

Section 903.2.4 is amended to read as follows:

903.2.4 Group F -1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 *fire area* exceeds 5,000 square feet (464 m^2).
2. A Group F-1 *fire area* is located more than two stories above grade plane.

3. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m2).

903.2.4.1 Woodworking operations. An *automatic sprinkler system* shall be provided throughout all Group F-1 occupancy *fire areas* that contain woodworking operations in excess of 2,500 square feet in area (232m^2) that generate finely divided combustible waste or use finely divided combustible materials.

Sections 903.2.5 thru 903.2.6 remain unchanged.

Section 903.2.7 is amended to read as follows:

903.2.7 Group M. An *automatic sprinkler system* shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M *fire area* exceeds, 5,000 square feet (464 m2).
2. A Group M *fire area* is located more than two stories above grade plane.

903.2.7.1 High-piled storage. An *automatic sprinkler system* shall be provided as required in Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

Section 903.2.8 is amended by adding new Section 903.2.8.5 to read as follows:

903.2.8.5 Existing Residential R-1 and R-2 Occupancies. In R-1 and R-2 occupancies where a fire has occurred that displaces occupants of 50-percent or more of the occupancy's units, the affected building shall be fire-sprinkled prior to re-occupancy of the building.

Section 903.2.9 is amended to read as follows:

903.2.9. Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 Occupancy where one of the following conditions exists:

1. A Group S-1 *fire area* exceeds 5,000 square feet (464 m^2).
2. A Group S-1 fire area is located more than two stories above grade plane; or
3. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2500 square feet (232m^2).

903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the Building Code as adopted and amended by the Code of Ordinances, as shown:

1. Buildings having two or more stories above grade plane, including *basements*, with a *fire area* containing a repair garage exceeding 3,500 square feet.
2. Buildings not more than one story above grade plane, with a *fire area* containing a repair garage exceeding 5,000 square feet.
3. Buildings with repair garages servicing vehicles parked in *basements*.
4. A Group S-1 *fire area* used for the repair of commercial trucks or busses where the *fire area* exceeds 2,500 square feet.

903.2.9.2 Bulk storage of tires. Buildings and structures that contain an area for the storage of tires that exceeds 1,000 square feet shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

903.2.9.3 Self-Service Storage Facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.
A screen shall be installed at eighteen (18) inches below the level of the sprinkler heads to restrict storage above that level. This screen shall be a mesh of not less than one (1) inch and not greater than six (6) inches in size. The screen and its supports shall be installed such that all elements are at least eighteen (18) inches below any sprinkler heads.

Section 903.2.11 is to read as follows:

903.2.11 Specific buildings areas and hazards. In all occupancies other than Group U, an *automatic sprinkler system* shall be installed for building design or hazards in the locations set forth in Sections 903.2.11.1 through 903.2.11.10.

Sections 903.2.11.1 thru 903.2.11.2 remain unchanged.

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories, other than penthouses in compliance with Section 1510 of the *International Building Code*, as adopted and amended by the Code of Ordinances located 35 feet (10,668 mm)

or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exceptions:

1. Open parking structures in compliance with Section 406.5 of the *International Building Code,* as adopted and amended by the Code of Ordinances*, having no other occupancies above the subject garage*.

Sections 903.2.11.4 thru 903.2.11.6 remain unchanged.

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4,572 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 5,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area greater than 5,000 square feet and in all existing buildings that are enlarged to be greater than 5,000 square feet. For the purpose of this provision, fire walls, fire barriers, or horizontal assemblies shall not define separate buildings.

Exceptions:

1. Open parking garages in compliance with Section 406.5 of the *International Building Code*.
2. When of non-combustible construction, the area of awning extension or free-standing canopies, both sides, and not used for display or storage shall not be considered for requiring sprinkler protection for areas greater than 5,000 square feet but less than otherwise required in this code.
3. Except for H and I occupancies, an addition with less than 1,000 square feet may be separated from the existing building without causing either the addition or the existing building to be sprinklered. The separation shall be a two (2) hour fire barrier for Types II and V construction and a three (3) hour fire barrier for other types of construction.

903.2.11.10. Expanded Tenant Spaces. Fire sprinklers shall be installed in all tenant spaces where the total fire area exceeds 5,000 square feet. For the purpose of fire sprinklers, fire walls, fire barriers, or horizontal assemblies shall not be used to separate single tenant fire areas.

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

Section 903.3.1.2 is amended by adding a new Section 903.3.1.2.3 to read as follows:

903.3.1.2.3 Attics and Storage Units. Sprinkler systems installed in accordance with NFPA 13R shall include sprinkler protection in combustible attics of buildings two (2) or more stories in height and in storage units located in the path of egress.

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; Group R-4 Condition 1 and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

903.3.1.3.1 Garages. When fire sprinkler systems are required, garages with living space above shall have fire sprinkler protection.

Section 903.3.1.4 is added to read as follows:

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

903.3.1.4.1 Attics. Only dry-pipe, 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 for small sections of large diameter water-filled pipe.

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 water-based fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

903.3.5.1 Domestic services. Where the domestic service provides the water supply for the *automatic sprinkler system*, the supply shall be in accordance with this section.

903.3.5.2 Residential combination services. A single combination water supply shall be allowed provided that the domestic demand is added to the sprinkler demand as required by NFPA 13R.

Section 903.4 is amended to read as follows:

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

Exceptions:

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

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for a minimum of 45 seconds and not more than 90 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 903.4.1 remains unchanged.

Section 903.4.2 is amended to read as follows:

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

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum75 candela strobe rating, installed as close as practicable to the exterior riser room door.

Section 903.4.3 remains unchanged.

Section 904.3 is amended by adding a new Section 904.3.4.1 to read as follows:

904.3 .4.1 Commercial cooking operations. Upon activation of an automatic fire extinguishing system, an audible alarm shall be provided to notify the occupants that the system has activated.

Section 904.12.6.2 is amended to read as follows:

904.12.6.2 Extinguishing system service. Automatic fire-extinguishing systems shall be serviced at least every six (6) months and after activation of the system. Inspection shall be by qualified individuals, and a certificate of inspection shall be forwarded to the Fire Code Official upon completion.

Exception: When approved by the Fire Code Official, automatic fire extinguishing systems may be inspected annually provided the cooking operations do not produce grease-laden vapors. Maintenance and cleaning shall comply with NFPA 96. Request for annual inspection approval must be in writing and specifically state no frying or cooking that would produce grease-laden vapors will be used.

Section 905.3.4 is deleted.

Section 905.3 is amended by adding a new Section 905.3.9 to read as follows:

905.3.9 Buildings Exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building’s interior area is more than 200 feet (6,0960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

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

Section 905.4 is amended to read as follows:

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

1. In every required *exit stairway*, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise *approved* by the *fire code official*.
2. On each side of the wall adjacent to the *exit* opening of a horizontal *exit*.
   Exception: Where floor areas adjacent to a horizontal *exit* are reachable from an *exit stairway* hose connection by a 30-foot (9,144 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 *exit stairway* hose connection by a 30-foot (9,144 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 four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of an *exit stairway* with access to the roof provided in accordance with Section 1011.12.
6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45,720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60,960 mm) from a hose connection, the *fire code official* is authorized to require that additional hose connections be provided in *approved* locations.
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200’) intervals along major corridors thereafter, or as otherwise approved by the fire code official.

Sections 905.4.1 and 905.4.2 remain unchanged.

Section 905.5 is deleted.

Section 905.6 is deleted.

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.

Manual dry systems shall have approved Knox locking caps on the fire department connections.

Section 905.9 is amended to read as follows:

905.9 Valve supervision. Valves controlling water supplies shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section 903.4.

Where a fire alarm system is provided, a signal shall be transmitted to the control unit.

Exceptions:

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

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for a minimum of 45 seconds and not more than 90 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 907.1 is amended by adding a new Section 907.1.4 to read as follows:

907.1.4 Design Standards. All alarm systems new or replacement systems shall be addressable. Alarm systems serving more than 20 initiating devices shall be analog addressable.

Exception: Existing systems need not comply unless the total building remodel or expansion initiated after March 2006 exceeds 30-percent of the system. When cumulative building remodel or expansion exceeds 50-percent of the building must

comply within 18 months of permit application.

Section 907.2.1 is amended to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3. 10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Activation of fire alarm notification appliances shall:

1. Cause illumination of the *means of egress* with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

Sections 907.2.1.1 and 907.2.1.2 remain unchanged.

Section 907.2.3 is amended to read as follows:

907.2.3 Group E. An automatic 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 all Group E educational occupancies to include Group E daycares. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems. Where automatic sprinkler system is provided, smoke detection may be omitted from general education classrooms, corridors, offices, cafeterias, and gymnasiums.

Exceptions:

1. An automatic fire alarm system is not required in Group E occupancies with an *occupant load* of 30 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 interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 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 fire alarm system initiates an *approved* occupant notification signal in accordance with Section 907.5.

3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
   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.

907.2.6 Group I. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group I occupancies. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2, 907.2.6.3.3 and 907.2.6.4.

Exceptions remain unchanged
Sections 907.2.6.1 thru 907.2.6.3.3 remain unchanged.

Section 907.2.6 is amended by the addition of the following:

907.2.6.4. Group 1-4 Occupancies. Group I-4 occupancies shall be equipped with a manual fire alarm system and automatic smoke detections system.

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 in

accordance with 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 907.4.2 is amended to read as follows:

907.4.2 Manual fire alarm boxes. Where a manual fire alarm system is required by another section of this code, it shall be activated by fire alarm boxes installed in accordance with Sections 907.4.2.1 through 907.4.2.7.

Sections 907.4.2.1 thru 907.4.2.6 remain unchanged.

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

Section 907.6 is amended to read as follows:

907.6 Installation and monitoring. A fire alarm system shall be installed and monitored in accordance with Sections 907.6.1 through 907.6.6.2 and NFPA 72. Fire alarm systems shall be installation only by personnel licensed and certified by the State of Texas Fire Marshal's Office for Fire Alarm Systems.

907.6.1 Wiring. Wiring shall comply with the requirements of NFPA 70 and NFPA 72. Wireless protection systems utilizing radio-frequency transmitting devices shall comply with the special requirements for supervision of low-power wireless systems in NFPA 72.

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 907.6.2 remains unchanged.

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.

907.6.3.1 Annunciation. The initiating device status shall be annunciated at an *approved* on-site location.

Sections 907.6.4 and 907.6.5 remain unchanged.

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

Exception: Monitoring by a supervising station is not required for:
1. Single- and multiple-station smoke alarms required by Section 907.2.11.
2. Smoke detectors in Group I-3 occupancies.
3. *Automatic sprinkler systems* in one- and two-family dwellings.

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

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

Section 907.8 is amended to read as follows:

907.8 Inspection, testing and maintenance. The maintenance and testing schedules and procedures for fire alarm and fire detection systems shall be in accordance with Sections 907.8.1 through 907.8.6 and NFPA 72. Records of inspection, testing and maintenance shall be maintained. All inspection, testing and maintenance shall be performed only by personnel licensed and certified by the State of Texas Fire Marshal's Office for fire alarm systems.

Sections 907.8.1 thru 907.8.4.1 remain unchanged.

907.8.5 Inspection, testing and maintenance. The building *owner* shall be responsible to maintain the fire and life safety systems in an operable condition at all times. Service personnel shall meet the qualification requirements of NFPA 72 and certified by the State of Texas Fire Marshal's Office for fire alarm systems for inspection, testing and maintenance of such systems. Records of inspection, testing and maintenance shall be maintained.

Section 907.8.6 is added to read as follows:

907.8.6 Private or Governmental Entities. Business, private or governmental entities, employing a full-time technician or technicians for the purpose of maintaining a fire alarm system on the premises of such entity, shall not be subject to the provisions of Section 907.8, requiring maintenance, and repair of a fire alarm system by a state-licensed fire alarm company, if the owner, occupant, and technician(s) comply fully with the following provisions:

1. The alarm system on their premises shall be installed and maintained in accordance with local rules, State of Texas Fire Marshal's Fire Alarm Rules 5.43-2, NFPA 72, and other applicable requirements. The technician or a state-licensed alarm company shall respond forthwith to a failure or malfunction of the alarm system and shall initiate corrective action. In every event response and initiation of corrective action shall be within 24 hours and provide notification to the Fire Marshal's Office.
2. The owner or occupant shall designate in writing to the Fire Code Official the specific full-time technician or technicians responsible for the installation, modification, and maintenance of the fire alarm system on their premises.

No one other than the designated technician(s) or a state-licensed fire alarm company may work on the fire alarm system.
3. Prior to qualifying for this exception, evidence of the competence of all designated technicians shall be provided to the Fire department. Proof that one or more of the following criteria are met shall satisfy the evidence requirement of this Section:

a. The technician currently holds or has within the immediate proceeding three (3) years held a State of Texas fire alarm technician license.

b. The technician has passed the State Fire Marshal Fire Alarm technician license test within the last 3 years.

c. The technician holds a NICET II certification or better.

d. The technician has completed certification training by the manufacturer of the fire system to be maintained. The technician shall produce proof of certification acceptable to the Fire Code Official and be restricted to maintenance only of the systems for which they have been certified.

4. The technician shall test the alarm system prior to September 1st each year.
A copy of the test is to be delivered to the Fire Marshal's office within 10 days of the test date.

Section 909.22; add to read as follows:

909.22 Stairway or Ramp Pressurization Alternative. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect. Such systems shall comply with Section 909, including the installation of a separate fire-fighter’s smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the fire department as per Section 105.7.

909.22.1 Ventilating equipment. The activation of ventilating equipment for the stair or ramp pressurization system shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors

is activated by smoke detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

909.22.1.1 Ventilation Systems. Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:
1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

Exceptions:
1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.
3. Control wiring and power wiring protected by a listed electrical circuit protective systems with a fire-resistance rating of not less than 2 hours.

909.22.1.2 Standby Power. Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

909.22.1.3 Acceptance and Testing. Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

Section 910.2; change Exception 2. and 3.to read as follows:

2. Only manual smoke and heat removal shall be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.
3. Only manual smoke and heat removal shall be required in areas of buildings equipped with control mode special application sprinklers with a response time index of 50$(m \cdot S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

Section 910.2; add subsections 910.2.3 with exceptions 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 15,000 square feet (1,394 m2) 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 of noncombustible construction containing only noncombustible materials.

Section 910.3; add section 910.3.4 to read as follows:

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

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

Exception: Manual only systems per Section 910.2.

910.3.4.2 Nonsprinklered Buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-

responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.
Exception: Listed gravity-operated drop out vents.

Section 910.4.3.1; change to read as follows:

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1,829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m2 per 0.4719 m3/s) of smoke exhaust.

Section 910.4.4; change to read as follows:

910.4.4 Activation. The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.
Exception: Manual only systems per Section 910.2.

Section 912.2; add 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.

Sec. 913.4 is amended to read as follows:

913.4. Supervision. Where provided, the fire pump's suction, discharge and bypass valves, and the isolation valves on the backflow prevention devices or assembly shall be supervised open by a central-station, proprietary, or remote-station signaling service.
The fire-pump system shall also be supervised for "loss of power", and "phase reversal" on supervisory circuits, and "pump running" as an alarm condition and shall report individually to the monitoring station.

Section 914.3.1.2; change to read as follows:

914.3.1.2 Water Supply to required Fire Pumps. In buildings that are more than 120 feet (36.576 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: {No change to exception.}

Section 1006.2.2.6 is changed and; add a new Section 1006.2.2.6 as follows:

1006.2.2 Egress based on use. The numbers of *exits* or access to *exits* shall be provided in the uses described in Sections 1006.2.2.1 through 1006.2.2.6.

1006.2.2.6 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the Electrical Code as adopted.

Section 1009.1; add the following Exception 4:

Exceptions:

{Previous exceptions unchanged}

4. Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009.

Section 1010.1.9.4 Bolt Locks; change Exceptions 3 and 4 to read as follows:

Exceptions:

3. Where a pair of doors serves an *occupant load* of less than 50 persons in a Group B, F, M or S occupancy. {*Remainder unchanged*}
4. Where a pair of doors serves a Group A, B, F, M or S occupancy {*Remainder unchanged*}

Section 1015.8 Window Openings; change number 1 to read as follows:

1. Operable windows where the top of the sill of the opening is located more than 55 (16 764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.

Section 1020.1 Construction; add Exception 6 to read as follows:

6. In group B occupancies, 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 shall be connected to an approved automatic fire alarm system where such system is provided.

Section 1031.2; change to read as follows:

1031.2 Reliability. Required *exit accesses, exits* and *exit discharges* shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. An *exit* or *exit passageway* shall not be used for any purpose that interferes with a means of egress.

Section 1103.3; add sentence to end of paragraph as follows:

Provide emergency signage as required by Section 607.3.

Section 1103.5 is amended to read as follows; and add Section 103.5.1 and 1103.5.5 to read as follows:

1103.5 Sprinkler systems. An *automatic sprinkler system* shall be provided in existing buildings in accordance with Sections 1103.5.1 through 1103.5.5.

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

Section 1103.5; add Section 1103.5.5 to read as follows:

1103.5.5 Existing Residential R-1 and R-2 Occupancies. In R-1 and R-2 occupancies where a fire has occurred that displaces occupants of 50-percent or more of the occupancy's units, the affected building shall be fire-sprinkled prior to re-occupancy of the building.

Section 1103.7; add Section 1103.7.8 and 1103.7.8.1 to read as follows:

1103.7.8 Fire Alarm System Design Standards. Where an existing fire alarm system is upgraded or replaced, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke and/or heat detectors shall have analog initiating devices.
Exception: Existing systems need not comply unless the total building, or fire alarm system, remodel or expansion exceeds 30% of the building. When cumulative building, or fire alarm system, remodel or expansion initiated after the date of original fire alarm panel installation exceeds 50% of the building, or fire alarm system, the fire alarm system must comply within 18 months of permit application.

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

Section 2304.1; change to read as follows:

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

following:

1. Conducted by a qualified attendant; and/or,

2. Shall be under the supervision of a qualified attendant; and/or

3. Shall be an unattended self-service facility in accordance with Section 2304.3.

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

Section 2401.2; delete this section.

Table 3206.2, footnote j; change text to read as follows:

j. Where storage areas are protected by either early suppression fast response (ESFR) sprinkler systems or control mode special application sprinklers with a response time index of 50 (m • s) 1/2 or less that are listed to control a fire in the stored commodities with 12 or fewer sprinklers, installed in accordance with NFPA 13, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas.

Section 3310.1; add sentence to end of paragraph to read as follows:

When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time at which construction has progressed beyond completion of the foundation of any structure.

Section 5601.1.3; change to read as follows:

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

Exceptions:

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

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

Section 5604.1 is amended to read as follows:

5604.1 General. Storage of explosives and explosive materials, small arms ammunition, small arms primers, propellant-actuated cartridges and smokeless propellants in magazines shall comply with the provisions of this Section.
The storage of explosives and blasting agents other than as otherwise provided is prohibited in any zoning district other than an industrial district, a planned development district where such storage is authorized by the adopting ordinance, and those locations where allowed under a specific use permit.

Section 5703.6; add a sentence to read as follows:

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

Section 5704.2.7; add a sentence to read as follows:

5704.2.7 Design, fabrication and construction requirements for tanks. The design, fabrication and construction of tanks shall comply with NFPA 30. Each tank shall bear a permanent nameplate or marking indicating the standard used as the basis of design.
Secondary containment shall be provided for all Above and Underground Storage Tanks (UST) and product lines in the form of double wall tanks and piping. Alternate methods of secondary containment may be used if approved by the Fire Code Official.

Sec. 5704.2.9.6.1 is amended to read as follows:

5704.2.9.6.1. Location Where Above-Ground Tanks are Prohibited. The storage of flammable or combustible liquids in outside above ground tanks is prohibited within each and every zoning district within the City of Garland with the exception of those districts which are zoned for industrial zoning use. Installation of above ground tanks in other than industrial zoning districts shall be permitted at the discretion of the Fire Code Official following a review of the proposed installation location, and the fire protection for the storage area. Tanks shall not be located within one hundred feet (100') of the property line of any Group E, I or R occupancies.

Section 5704.2.9.5; change Section 5704.2.9.5 and add Section 5704.2.9.5.3 to read as follows:

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

5704.2.9.5.1 {No change.}

5704.2.9.5.2 {No change.}

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.

5704.2.11 Underground tanks. Underground storage of flammable and *combustible liquids* in tanks shall comply with Section 5704.2 and Sections 5704.2.11.1 through 5704.2.11.4.2.

5704.2.11.1 Location. Flammable and combustible liquid storage tanks located underground, either outside of or under buildings, shall be in accordance with this Section, and the City's Health Department written policy for tank removal and installation.

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 not be less than three (3) feet.
3. A minimum distance of one (1) foot, shell to shell, shall be maintained between underground tanks.

Section 5704.2.11.4; add a sentence to read as follows:

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

Section 5704.2.11.4.2; change 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; add 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.

5704.2.13.1.3 Out of service for one year. Underground tanks that have been out of service for a period of one year shall be removed from the ground in accordance with Section 5704.2.14.

Section 5704.2.13.1.4 is deleted.

Section 6103.2.1; add 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, Exception; add an exception 2 to read as follows:

Exceptions:

1. *{existing text unchanged}*

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

Section 6104.3; add 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 container shall not exceed 250-gallon water capacity per lot. See Table 6104.3 for 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 gallon above ground or 1,000 gallon underground approved containers.

Section 6107.4 and 6109.13; change to read as follows:

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

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.

Section 3

That a violation of any provision of this Ordinance shall be a misdemeanor punishable in accordance with Sec. 10.05 of the Code of Ordinances of the City of Garland, Texas.

Section 4

That Chapter 21, “Fire Prevention,” of the Code of Ordinances of the City of Garland, Texas, amended, shall be and remain in full force and effect save and except as amended in this Ordinance.

Section 5

That the terms and provisions of this Ordinance are severable and

are governed by Sec. 10.06 of the Code of Ordinances of the City of Garland, Texas.

Section 6

That this Ordinance shall be and become effective 30 days after its passage and approval.

PASSED AND APPROVED this 16th day of August, 2016.

CITY OF GARLAND, TEXAS

_____
Mayor

ATTEST:

_____
City Secretary