2018 International Fire Code Amendments

The following sections of the International Fire Code, 2018 edition, are hereby amended to read as follows:

Section 101.1 of the International Fire Code, 2018 edition, is amended to read as follows:

> **101.1 Title**. These regulations shall be known as the Fire Code of Royse City, hereinafter referred to as "this code."

Section 102.1 #3 and #4 of the International Fire Code, 2018 edition, are amended to read as follows:

> **102.1 Construction and design provisions**.
>
> 3. Existing structures, facilities and conditions when required in chapter 11.
>
> 4. Existing structures, facilities and conditions that, in the opinion of the fire code official, would result in imminent destruction of property or imminent injury to persons.

Section 103.3 of the International Fire Code, 2018 edition, is added to read as follows:

> **103.3 Deputies**. In accordance with the prescribed procedures of the City of Royse City, the fire code official shall have the authority to appoint a deputy fire code official, the related technical officers, inspectors, plan examiners and other employees. Such employees shall have powers as delegated by the fire code official.

Section 103.4 of the International Fire Code, 2018 edition, is amended to read as follows:

> **103.4 Liability**. Any officer, employee, or representative of the city charged with the enforcement of this code, while acting for the city in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally, and is hereby relieved from all personal liability, from parties other than the city, for any damage accruing to person or property as a result of any act or by reason of an act or omission in the discharge of official duties.
>
> Any suit instituted against any officer, employee, or representative of the city because of an act performed by that officer, employee, or representative of the city in the lawful discharge of duties and under the provisions of this code may be defended by the city attorney in the same manner as other suits brought against any officer, employee, or representative of the city.

Section 103.4.1 of the International Fire Code, 2018 edition, is deleted.

Section 104.6 of the International Fire Code, 2018 edition, is amended to read as follows:

104.6 Official records. The fire code official shall keep official records as required by sections 104.6.1 through 104.6.4. Such records shall be retained in the official records as directed by person listed in section 1.06.035 of the Code of Ordinances.

Section 105.3.1 of the International Fire Code, 2018 edition, is amended to read as follows:

105.3.1 Expiration. An operational permit shall remain in effect until reissued, renewed, or revoked or for such a period of time as specified in the permit. Construction permits issued shall become invalid 180 days after issuance, unless a different expiration date is specifically listed on the permit. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

Section 105.3.3 of the International Fire Code, 2018 edition, is amended to read as follows:

105.3.3 Occupancy prohibited before approval. The building or structure shall not be occupied prior to the fire code official issuing any required permit and conducting any required associated inspections indicating the applicable provisions of this code have been met.

Section 105.6.30 of the International Fire Code, 2018 edition, is hereby deleted.

Section 105.6.34 of the International Fire Code, 2018 edition, is amended to read as follows:

105.6.34 Open flames and candles. An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.

Defense: It is defense to prosecution that the violation consisted solely of a candle(s) used in a dining area of a restaurant or drinking establishment, the candle did not have a flame greater than one inch, and the candle's flame was protected from other ignitable items.

Section 105.7.22 of the International Fire Code, 2018 edition, is hereby deleted.

Section 105.7.26 of the International Fire Code, 2018 edition, is added to read as follows:

105.7.26 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 105.7.27 of the International Fire Code, 2018 edition, is added to read as follows:

105.7.27 Traffic calming devices. Construction permits are required for the installation or modification of a traffic calming device, as specified in chapter 5. Maintenance

performed in accordance with this code is not considered a modification and does not require a permit.

Section 106.2 of the International Fire Code, 2018 edition, is added to read as follows:

106.2 Schedule of permit fees. A fee for each permit shall be paid as required, in accordance with the fire permit fees set forth in sections 1.05.081–1.05.082 of the Code of Ordinances.

Section 109 of the International Fire Code, 2018 edition, is replaced in its entirety and amended to read as follows:

SECTION 109
APPELLATE PROCESS

109.1 General. Any person aggrieved by an order, decision or determination made by the fire code official made pursuant to this code is entitled to an appeal of such order, decision, or determination, to an administration adjudication hearing pursuant to the administrative hearing process as established in article 7.02 of the Code of Ordinances. All appeals will be conducted in accordance with the administrative hearing process.

109.2 Limitations of appeal.

a. An application for an appeal shall be based solely on a claim that the fire code official has incorrectly interpreted or applied this code.

b. The administrative hearing officer shall have no authority to waive, alter or amend any requirements of this code.

109.3 Ancillary proceedings.

a. An appeal filed pursuant to this section shall have no effect on the ability of the city to enforce any rule, ordinance, law, or police regulation and shall not stay any proceedings initiated by the city.

b. The appellate procedures set forth in this section are administrative remedies available to any person aggrieved by an order, decision or determination made by the fire code official.

Section 110.1 of the International Fire Code, 2018 edition, is amended to read as follows:

110.1 General violation. It shall be offense for any person to erect, construct, enlarge, alter, extend, repair, move, improve, remove, demolish, equip, use, occupy or maintain any building, occupancy, premise or system regulated by this code or cause or permit the same to be done in violation of this code.

Section 110.3 of the International Fire Code, 2018 edition, is amended to read as follows:

110.3 Notice of violation. Prior to taking legal action, the building official may serve a notice of violation or order to the person responsible for the erection, construction, enlargement, alteration, extension, repair, movement, improvement, removal, demolition, equipping, use, occupation or maintenance of work in violation of the provisions of this code, or in violation of a detail statement or the approved construction documents thereunder, or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or conditions and the abatement of the violation.

Section 110.4 of the International Fire Code, 2018 edition, is amended to read as follows:

110.4 Violation penalties.

1. The general penalties set forth in section 1.01.009 of the Code of Ordinances shall apply to any violation of this code.

2. The city attorney is authorized to pursue any additional actions and/or remedies available at law for violations of this code.

Section 110.5 of the International Fire Code, 2018 edition, is added to read as follows:

110.5 Failure to obtain permit. It shall be an offense for any person to perform any work requiring a permit pursuant to section 105 of this code without having a valid permit.

Section 110.6 of the International Fire Code, 2018 edition, is added to read as follows:

110.6 Unlawful occupation of structure.

1. It shall be an offense for any person to occupy any building or structure in violation of section 105.3.3 of this code.

2. It shall be an offense for any person to continue to occupy any building or structure after an evacuation order has been issued pursuant to section 111 of this code.

Section 110.7 of the International Fire Code, 2018 edition, is added to read as follows:

110.7 Violation of stop-work order. It shall be an offense for any person to continue work at any premises subject to a stop-work order issued by the fire code official.

Section 112.4 of the International Fire Code, 2018 edition, is hereby deleted.

Section 202. The following definitions are added to section 202 of the International Fire Code, 2018 edition, to read as follows:

ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of providing identification of each individual alarm-initiating device. The identification shall be in

plain English and as descriptive as possible to specifically identify the location of the device in alarm. The system shall have the capability of alarm verification.

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

FIRE FLOW CALCULATION AREA. The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified by appendix B.

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.

HIGH-RISE BUILDING. A building having any floors used for human occupancy located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

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 202. The following definitions are amended in section 202 of the International Fire Code, 2018 edition, to read as follows:

AMBULATORY HEALTH CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing, or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation. This group may include, but not be limited to, the following:

1. Dialysis centers

2. Procedures involving sedation

3. Sedation dentistry

4. Surgery centers

5. Colonic centers

6. Psychiatric centers

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.

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

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

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in modification and servicing of motor vehicles and lube changes,.

Section 307.2 of the International Fire Code, 2018 edition, is amended to read as follows:

307.2 Permit required. A permit, which is issued at the discretion of the fire code official, 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, bonfire, or open burning. Permits for agricultural purposes shall be issued by the fire code official subject to the following:

1. The fire code official is authorized to place instructions and stipulations necessary for the safety of the public on the use of such permit. Instructions and stipulations of the permit shall be adhered to, and failure to adhere to any instructions and stipulations of the permit shall be an offense and grounds for revocation.

2. A plan of the proposed burn with sufficient detail for the fire code official to assess any hazards shall be submitted by the applicant prior to issuance of a permit.

3. The fire code official is authorized, but not required, to conduct a pre-burn inspection of the site and a post-burn inspection of the site.

4. Permit holder must notify the fire department and Rockwall County Sheriff's Office prior to igniting any fire.

5. The fire code official may deny issuance of permit pursuant to this section for previous non-compliance with this or other applicable laws, rules, and regulations.

6. Permits will expire as indicated on the permit.

7. In addition to any other lawful requirements, the following conditions shall apply, unless specifically excluded on the permit, to all open burning operational permits:

    a) Open burning that is offensive or objectionable because of smoke or odor emissions or when atmospheric conditions or local conditions make such fire hazardous shall be prohibited;

b) Commencement or continued burning is allowed only when the wind direction and other weather conditions are such that the smoke and other pollutants will not present a hazard to any public transportation areas (e.g., roads, landing strips);

c) Permit holder shall post someone to flag traffic if at any time the burning causes or may tend to cause smoke to blow onto or across a road or highway;

d) Keep fires downwind of, or at least 300 feet away from, any structure other than that of the permit holder. This requirement may be waived only with the prior written approval of whoever owns or rents the adjacent property and either resides or conducts business there;

e) Open burning must begin no earlier than one hour after sunrise and end on the same day one hour before sunset;

f) Open burning may not commence unless weather conditions are such that the smoke will dissipate (winds of at least 6 miles per hour; no temperature inversions) while still allowing the fire to be contained and controlled (winds no faster than 23 miles per hour);

g) Open burning shall be permitted only on land parcels 2 acres or greater; and

h) All operations must concur with the approved plans. Any deviation from the approved plans requires a re-submittal to the fire code official.

Exceptions: Recreational fires.

Section 307.4 of the International Fire Code, 2018 edition, is amended to read as follows:

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

Exceptions:

1. Fires in approved containers that are not less than 15 feet (4572 mm) from a structure.

2. The minimum required distance from a structure shall be 25 feet (7620 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.

Section 307.4.5 of the International Fire Code, 2018 edition, is added to read as follows:

307.4.4 [307.4.5] Trench burns. Trench burns shall be conducted in air curtain trenches and in accordance with section 307.2.

Section 307.5 of the International Fire Code, 2018 edition, is amended to 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 308.1.6.2, exception #3, of the International Fire Code, 2018 edition, is amended to read as follows:

Exceptions:

3. Torches or flame-producing devices in accordance with section 3081.3.

Table 315.7.6(1); is amended to read as follows:

Wall Construction	**Opening Type**	**Wood Pallet Separation Distance (Feet)**		
		= 50 Pallets	**51 to 200 Pallets**	**>200 Pallets**
Masonry	None	2	2	2
Masonry	Fire-rated glazing with open sprinklers	2	10	20
Masonry	Fire-rated glazing	10	15	20
Masonry	Plain glass with open sprinklers	10	15	20
Noncombustible	None	10	15	20
Wood with open sprinkler	-	10	15	20
Wood	None	15	30	90
Any	Plain glass	15	30	90

Section 404.2.2; add number 4.10 to read as follows:

4.10 Fire extinguishing system controls.

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 has the following sentence added to the end of the first paragraph:

Except for single- or two-family residences, the path of measurement shall be along a minimum of a ten feet (10') wide unobstructed pathway around the external walls of the structure.

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 (7315mm), except for approved security gates in accordance with section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4267 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; change section 503.2.3 to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed in accordance with the City of Royse City Engineering Standards and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

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,” “FIRE LANE NO PARKING,” or “FIRE LANE TOW AWAY ZONE” 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,” “FIRE LANE NO PARKING,” or “FIRE LANE TOW AWAY ZONE” 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 3" 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. 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 fire code official is authorized to have the obstruction removed in accordance with this code, state, and local statues.

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). Due to layout of the land or positioning of a structure, the fire code official may increase the minimum size of the numbers required. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Numerals or addresses shall be posted on a minimum 20 inch (508 mm) by 30 inch (762 mm) background on border. Address identification shall be maintained..

Exception: R-3 Single-Family occupancies shall have approved numerals of a minimum 4 inches in height and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

Section 507.4 is amended to read as follows:

507.4 Water supply test date and information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants" and within one year of sprinkler plan submittal. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, as required. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report, or as approved by the fire code official. The report must indicate the dominant water tank level at the time of the test and the maximum and

minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard.

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 603.3.1, 603.3.2, and 603.3.2.1; change to read as follows:

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

603.3.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with sections 603.3.2.1 through 603.3.2.5 or and chapter 57.

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 tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142 or UL 2085 for Class III liquids, and also listed as a double-wall/secondary containment tank for Class II liquids.

2. 1,320 gallons (4996 L) in buildings equipped with an automatic sprinkler system in accordance with section 903.3.1.1, where stored in a tank complying with UL 142 or UL 2085 as a double-wall/secondary containment tank.

3. 3,000 gallons (11 356 L) where stored in protected above-ground tanks complying with UL 2085 and section 5704.2.9.7 and the room is protected by an automatic sprinkler system in accordance with section 903.3.1.1.

Section 807.5.2.2, an exception is added to read as follows:

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with section 903.3.1.1 shall be limited to 50 percent of the wall area.

Section 807.5.5.2, an exception is added to read as follows:

> **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 901.6.4; add section 901.6.4 to read as follows:

> **901.6.4 False alarms and nuisance alarms**. False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

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 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 at least 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 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 fire sprinkler systems shall be installed in all new buildings, structures, and additions with fire flow calculation area of 6,000 square feet or greater and in all existing buildings, not including R-3, that are enlarged to have a fire flow calculation of 6,000 square feet or greater and in buildings that have a fire flow calculation greater than 6,000 square feet which are enlarged and all locations described in this section. The fire code official may modify the requirement to sprinkler existing buildings pursuant to section 104.8.

Sections 903.2.1.1, 903.2.1.2, 903.2.1.3, and 903.2.1.4; change to read as follows:

> **903.2.1.1 Group A-1**. An automatic sprinkler system shall be provided throughout stories containing group A-1 occupancies and throughout all stories from the group A-1 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire flow calculation area exceeds 6,000 square feet.

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than the level of exit discharge.

4. The fire area contains a multi-theater complex.

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided throughout stories containing group A-2 occupancies and throughout all stories from the group A-2 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire flow calculation area exceeds 5,000 square feet.

2. The fire area has an occupant load of 100 or more.

3. The fire area is located on a floor other than the level of exit discharge.

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing group A-3 occupancies and throughout all stories from the group A-3 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire flow calculation area exceeds 6,000 square feet.

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than the level of exit discharge.

Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided throughout stories containing group A-4 occupancies and throughout all stories from the group A-4 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire flow calculation area exceeds 6,000 square feet.

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than the level of exit discharge.

Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.

Sections 903.2.3; change to read as follows and delete exception:

903.2.3 Group E. An automatic sprinkler system shall be provided for group E occupancies as follows:

1. Throughout all group E fire flow calculation areas greater than 6,000 square feet in area.

2. Throughout every portion of educational buildings below the level of exit discharge.

   Exception: is hereby deleted

3. The group E fire flow calculation areas has an occupant load of 300 or more.

Sections 903.2.4; change 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. Where a group F-1 fire flow calculation area exceeds 6,000 square feet.

2. Where a group F-1 fire area is located more than three stories above grade plane.

3. Where the combined area of all group F-1 fire areas on all floors, including any mezzanines, exceeds 6,000 square feet.

4. Where a group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m^2).

Sections 903.2.7; change 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. Where a group M fire flow calculation area exceeds 6,000 square feet.

2. Where a group M fire flow calculation area is located more than three stories above grade plane.

3. Where the combined area of all group M fire flow calculation areas on all floors, including any mezzanines, exceeds 6,000 square feet.

4. Where a group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet.

Section 903.2.9; change 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. Where a group S-1 fire flow calculation area exceeds 6,000 square feet.

2. Where a group S-1 fire flow calculation area is located more than three stories above grade plane.

3. The combined area of all group S-1 fire areas on all floors, including any mezzanines, exceeds 6,000 square feet.

4. Where a group S-1 fire flow calculation area used for the storage of commercial motor vehicles where the fire flow calculation area exceeds 5,000 square feet.

5. Where a group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m^2)

Section 903.2.8.1; change to read as follows:

903.2.8.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with the International Building Code, as follows:

1. Buildings two or more stories in height, including basements, with a fire area containing a repair garage exceeding a fire flow calculation area of 6,000 square feet.

2. One-story buildings with a fire area containing a repair garage exceeding a fire flow calculation area of 6,000 square feet.

3. Buildings with a repair garage servicing vehicles parked in the basement.

4. Where a group S-1 fire flow calculation area used for the repair of commercial motor vehicles where the fire flow calculation area exceeds 5.000 [5,000] square feet (464 m^2).

Section 903.2.9.3 is added to read as follows:

903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Section 903.2.10 is amended to read as follows:

903.2.10 Group S-2 enclosed parking garages. An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with section 406.6 of the International Building Code where either of the following conditions exists:

1. Where a group S-2 fire flow calculation area exceeds 6,000 square feet.

2. Where the enclosed parking garage is located beneath other groups.

   Exception: Enclosed parking garages located beneath group R-3 occupancies.

Section 903.2.11.3 is amended to read as follows:

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with section 1509 of the International Building Code, that is located 35 feet (10 668 mm) or more above the lowest level of fire department vehicle access.

Exception: Open parking structures in compliance with section 406.3 of the International Building Code.

Section 903.2.11.7 is added to read as follows:

903.2.11.7 High-piled combustible storage. For any building with a clear height exceeding 12 feet (4572 mm), see chapter 23 to determine if those provisions apply.

Section 903.2.11.8 is added to read as follows:

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.

Section 903.2.11.9 is added to read as follows:

903.2.11.9 Buildings over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area over 6,000 sq. ft. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking structures in compliance with section 406.3 of the International Building Code.

Section 903.3.1.2.3; delete section and replace as follows:

Section 903.3.1.2.3 Attached garages and attics. Sprinkler protection is required in attached garages, and in the following attic spaces:

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

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

3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.

4. Group R-4, condition 2 occupancy attics not required by item 1 or 3 to have sprinklers shall comply with one of the following:

    4.1. Provide automatic sprinkler system protection.

    4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.

    4.3. Construct the attic using noncombustible materials.

    4.4. Construct the attic using fire-retardant-treated wood complying with section 2303.2 of the International Building Code.

    4.5. Fill the attic with noncombustible insulation.

Section 903.3.1.4 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.

Section 903.3.1.4.1 is added to read as follows:

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

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

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and

2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and

3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

Section 903.3.1.4.2 is added to read as follows:

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 a second paragraph is added to read as follows:

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

Section 903.4 a second paragraph after the exceptions is added to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. 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 903.4.2 a second paragraph is added to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

Section 905.2 is amended to read as follows:

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

Section 905.3.8 is added to read as follows:

905.3.9 [905.3.8] Buildings exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14 where approved by the fire code official.

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

Section 905.4, item #1 is amended to read as follows:

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.

Section 905.4, item #5 is amended to read as follows:

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 either on the roof or at the highest landing of a stairway with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

Section 905.4, item #7 is added to read as follows:

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.

Section 905.9 a second paragraph after the exceptions is added to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. 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 907.1.4 is added to read as follows:

907.1.4 Design standards. All alarm systems new or replacement shall be addressable. Alarm systems serving more than 20 smoke detectors shall be analog addressable.

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: {No change.}

Activation of fire alarm notification appliances shall:

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

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

Section 907.2.3 is amended to read as follows:

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

Exceptions:

1. {No change.}

    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.) {No change to remainder of exceptions.}

Section 907.2.12, exception 3; change to read as follows:

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.

Section 907.4.2.7 is added to read as follows:

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

Section 907.6.1.1 is added to read as follows:

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

Section 907.6.3; delete all four exceptions.

Section 909.22 is added 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 firefighter'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.

Section 909.22.1 is added to read as follows:

> **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.

Section 909.22.1.1 is added to read as follows:

> **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.

Section 909.22.1.2 is added to read as follows:

909.21.1.2 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.

Section 909.22.1.3 is added to read as follows:

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, exceptions 2 and 3, are amended 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*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 910.2.3 is added 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 (1394 m^2) 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 910.3.4 is added 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.

Section 910.3.4.1 is added to read as follows:

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.

Section 910.3.4.2 is added to read as follows:

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 912.2.3 is added to read as follows:

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

Section 914.3.1.2 is amended to read as follows:

914.3.1.2 Water supply to required fire pumps. In buildings that are more than 120 feet (37 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 1009.8 is amended to add exception #7 to read as follows:

7. 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 and chapter 11.

Section 1010.1.9.5 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 1031.2 is amended to read as follows:

1031.2 Reliability. Required exit accesses, exits or 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 1103.5.1: add sentence to read as follows:

Fire sprinkler system installation shall be completed within 24 months from date of notification by the fire code official.

Section 1103.5; add section 1103.5.5 to read as follows:

1103.5.5 Spray booths and rooms. Existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with section 2404.

Section 1103.7.7 is added to read as follows:

1103.7.7 Fire alarm system design standards. Where an existing fire alarm system is upgraded or replaced, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke and/or heat detectors shall have analog initiating devices.

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

Section 1103.7.7.1 is added to read as follows:

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

Section 1203.1.3 is amended to read as follows:

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

Section 1203.1.10 is added to read as follows:

1203.1.10 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 1203.2 is amended to read as follows:

1203.2 Where required. Emergency and standby power systems shall be provided where required by sections 1203.2.1 through 1203.2.26 or elsewhere identified in this code or any other referenced code.

Section 1203.2.4 is amended to read as follows:

1203.2.4 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 907.2.19 and 914.2.3

Group A occupancies, sections 907.2.1 and 907.5.2.2.4.

Special amusement buildings, section 907.2.11

High-rise buildings, section 907.2.12

Atriums, section 907.2.13

Deep underground buildings, section 907.2.18

Section 1203.2.14 is amended to read as follows:

1203.2.14 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)

Section 1203.2.15 is amended to read as follows:

1203.2.15 Membrane structures. Emergency power shall be provided for exit signs in temporary tents and membrane structures in accordance with section 3103.12.6. (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.

Section 1203.2.17 is amended to read as follows:

1203.2.17 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 410.2.5

Special amusement buildings (as applicable to group A's), International Building Code, section 411.1

Smoke protected seating, section 1029.6.2.

Section 1203.2.19 is added to read as follows:

1203.2.19 Covered and open mall buildings. Emergency power shall be provided in accordance with section 907.2.19 and 914.2.3.

Section 1203.2.20 is added to read as follows:

1203.2.20 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.

Section 1203.2.21 is added to read as follows:

1203.2.21 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.

Section 1203.2.22 is added to read as follows:

1203.2.22 Elevator pressurization. Standby power shall be provided for elevator pressurization system as required by the International Building Code, section 909.21.5.

Section 1203.2.23 is added to read as follows:

1203.2.23 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.

Section 1203.2.24 is added to read as follows:

1203.2.24 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.

Section 1203.2.25 is added to read as follows:

1203.2.25 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.

Section 1203.2.26 is added to read as follows:

1203.2.26 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.)

Section 1203.7 is added to read as follows:

1203.7 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 2304.1 is amended to read as follows:

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

1. Conducted by a qualified attendant;

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

3. Shall be an unattended self-service facility in accordance with section 2204.3.

At any time the qualified attendant of item #1 or #2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with section 2204.3.

Section 2401.2 is hereby deleted.

Section 3103.3.1 is hereby deleted.

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

h. Where storage areas are protected by either early suppression fast response (ESFR) sprinkler systems or control mod e 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.

Table 3206.2, footnote j; add footnote j to row titled ‘high hazard’ and ‘greater than 300,000’ to read as follows:

j. High hazard high-piled storage areas shall not exceed 500,000 square feet. A 2-hour fire wall constructed in accordance with section 706 of the International Building Code shall be used to divide high-piled storage exceeding 500,000 square feet in area.

Section 5601.1.3 is amended to read as follows:

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

Exceptions:

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

2. Manufacture, assembly and testing of fireworks as allowed in section 3305.

2. The use of fireworks for approved display as allowed in section 3308.

3. Sparklers, if:

   a. Such sparklers are fireworks, 1.4G (formerly known as Class C, Common Fireworks), that are referred to as sparklers by the general public;

   b. Such sparklers are no greater than 12 inches in length;

   c. Such sparklers are designed and intended by the manufacturer to be held in one's hand when lit;

   d. There is no burn ban in effect; and

   e. Such sparklers are used on private property in a safe manner under adult supervision.

4. As allowed be separate written agreement approved by the city.

Section 5703.6 is amended to read as follows:

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

Section 5704.2.9.6.1 is amended to read as follows:

5704.2.9.6.1 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited otherwise by City of Royse City Code of Ordinances.

Section 5704.2.11.4 is amended to read as follows:

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

Section 5704.2.11.4.2 is amended to read as follows:

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

Section 5704.2.11.4.3 is added to read as follows:

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

Section 5706.2.4.4 is amended to read as follows:

5706.2.4.4 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks is prohibited within the limits established by law as the limits of districts in which such storage is prohibited otherwise by City of Royse City Code of Ordinances.

Section 5806.2 is amended to read as follows:

5806.2 Limitations. Storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited otherwise by City of Royse City Code of Ordinances.

Section 6104.2: delete.

Appendix B, table B105.2, footnote a, is amended to read as follows:

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

Appendix C section C101.1 is amended to read as follows:

C101.1 Scope. In addition to the requirements of section 507.5.1, fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, for those areas requiring subdivision or development plats as set forth in the Subdivision Ordinance of the City of Royse City.

Appendix D, section D102.1; change to read as follows:

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg) in accordance with the City of Royse Engineering Standards.

Appendix D, section D103.1; change to read as follows:

D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 24-feet

Appendix D, section D103.2; change to read as follows:

D103.2 Grade. Fire apparatus access roads shall not exceed 10% in grade and not exceed 5% on cross-slope.

Exception: Grades steeper than 10% as approved by the Fire Code Official.

Appendix D, section D103.3; change to read as follows:

D103.3 Turning radius. The minimum turning radius shall be in accordance with:

1. For buildings less than 30-feet and less than 3 stories in height:

   a. 20-feet (inside) for turns less than or equal to 90 degrees

   b. 25-feet (inside) for turns greater than 90 degrees

2. For buildings 30-feet or more and/or 3 or more stories in height minimum interior turning radius of 30 feet

For purposes of this section, the building height is measured from the lowest finished grade of the fire access roads to the point of accessible roof level, including parapet walls. For buildings with pitched roofs, the height is measured to the roof plate.

Appendix D, section D103.5; change to read as follows:

D103.5 Fire apparatus access road gates. Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. Where a single gate is provided, the gate width shall be not less 24 feet. Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet (3658 mm).

2. Gates shall be of the swinging or sliding type.

3. Construction of gates shall be of materials that allow manual operation by one person.

4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.

5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.

6. Methods of locking shall be submitted for approval by fire code official.

7. Electric gate operators, where provided, shall be listed in accordance with UL 325.

8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

Appendix D, section D105.2; change to read as follows:

D105.2 Width. Aerial fire apparatus access roads shall have a minimum unobstructed width of 24 feet.