

Ordinance No. 22-056

An ordinance amending the "Fire Prevention" Chapter of the Code of the City of Arlington, Texas, 1987, through the amendment of Article I, General Provisions, relative to adopting the 2021 Edition of the International Fire Code; adopting local amendments and associated appendices; providing for a fine of up to \$2,000 for each violation; providing this ordinance be cumulative; and providing for severability, governmental immunity, injunctions, publication, and an effective date

WHEREAS, after receipt of public comment in accordance with Section 214.217 of the Texas Local Government Code, and upon the advice and recommendation of the Building Code Board of Appeals sitting as the Fire Prevention Board of Appeals, the City Council finds that it is in the public interest to adopt the 2021 Edition of the International Fire Code for the preservation of public safety and the general welfare of its citizens; NOW THEREFORE

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

1.

That the "Fire Prevention" Chapter of the Code of the City of Arlington, Texas, 1987, as amended, Article I, General Provisions, Sections 1.01 through 1.04, are hereby repealed and replaced in their entirety and shall hereafter read as follows:

ARTICLE I  
GENERAL PROVISIONS

**Section 1.01 Title**

This Chapter shall be known as the "Fire Code" of the City of Arlington.

**Section 1.02 Adoption of Code**

The International Fire Code, 2021 edition, as adopted and published by the International Code Council, is hereby adopted and designated together with the additions, deletions and amendments hereinafter contained, as the Fire Code of the City of Arlington, the same as though such Code was copied at length herein. A copy of the International Fire Code and its Appendices shall be kept on file in the Office of the Department of Fire Prevention.

### **Section 1.03 Amendments, Additions and Deletions**

The adoption of the International Fire Code, as provided in Section 1.02 above, is modified and amended by the following:

1. The amendment of Section 102.7, entitled **Referenced codes and standards**, to read as follows:

#### **102.7 Referenced codes and standards.**

The codes and standards referenced in this code shall be those that are listed in Chapter 80 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted.

2. The amendment of Section 103, entitled **CODE COMPLIANCE AGENCY**, to be retitled and to read as follows:

### **SECTION 103 DEPARTMENT OF FIRE PREVENTION**

#### **103.1 General.**

The department of fire prevention established within the fire department under the direction of the Fire Chief shall consist of fire department personnel assigned thereto by the Fire Chief. The function of the department shall be to assist the Fire Chief in the implementation, administration, and enforcement of the provisions of this code.

#### **103.2 Fire Prevention Bureau personnel and police.**

The Fire Chief and members of the fire prevention bureau shall have the powers of police officers in performing their duties under 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.

3. The amendment of Section 104.3, entitled **Right of entry**, to read as follows:

#### **104.3 Right of entry.**

Whenever necessary to make an inspection to enforce any of the provisions of this code, or whenever the Fire Chief or authorized representative has reasonable cause

to believe that there exists in any building or upon any premises any condition which makes such building or premises unsafe, the Fire Chief or authorized representative may enter such building or premises at all reasonable times to inspect the same or to perform any duty imposed upon the Fire Chief by this code. If such building or premises are occupied, authorized representative shall first present proper credentials and request entry. If such building or premises are unoccupied, the Fire Chief or authorized representative shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and request entry.

If such entry is refused, or if no owner or other person having charge or control of the building or premises can be located, the Fire Chief or authorized representative has recourse to every remedy provided by law to secure entry.

4. The amendment of Section 104.3.1, entitled **Warrant**, to read as follows:

**104.3.1 Warrant.**

The Fire Chief or authorized representative is authorized to obtain a warrant for the inspection of a building or premises pursuant to Texas Code of Criminal Procedure article 18.05, as amended.

5. The amendment of Section 104.7, entitled **Liability**, to read as follows:

**104.7 Liability.**

The Fire Code Official, officer or employee charged with the enforcement of this code, while acting for the jurisdiction, shall not thereby be rendered liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act required or permitted in the discharge of official duties.

**104.7.1 Legal Defense.**

Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The Fire Code Official or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code; and any officer of the department of fire prevention, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith.

All regulations provided in this code are hereby declared to be governmental and for the benefit of the general public. Any member of the City Council, any City Official or employee or any member of the Board of Appeals

charged with the enforcement of this Fire Code, acting for the City in the discharge of their duties, shall be indemnified and defended by the City of Arlington in accordance with the provisions of Article IX of the "Administration" Chapter of the Code of the City of Arlington.

6. The amendment of Section 104.12, entitled **Authority at fires and other emergencies**, by adding Sections 104.12.4, 104.12.5, and 104.12.6, which shall read as follows:

**104.12.4 Utilities.**

The Fire Chief or any member of the Fire Department shall have the authority, in time of emergency, to order the disconnection of gas or electrical utilities to a building or structure when deemed necessary for the public safety, without liability therefor.

**104.12.5 Evacuation.**

The Fire Chief or any member of the Fire Department shall have the authority, in time of emergency, to order the evacuation of a building or structure when deemed necessary for the safety of occupants thereof, and it shall be unlawful for any person to refuse to evacuate upon such order, or to resist or obstruct the evacuation of other persons.

**104.12.6 Disaster Authority.**

The Fire Chief or any members of the Fire or Police Department shall have the authority during the period of a federal, state or city emergency or disaster declaration to evacuate areas, control traffic or take other action, or take no action as necessary to deal with a situation when such action or inaction may save lives, prevent human suffering or mitigate property damage. An action or inaction is "effective" if it in any way contributes or can reasonably be thought to contribute to preserving lives or property or prevent human suffering.

7. The amendment of Section 104, entitled **DUTIES AND POWERS OF THE FIRE CODE OFFICIAL**, by adding Section 104.13, entitled **Governmental immunity**, which shall read as follows:

**104.13 Governmental immunity.**

The Fire Code is an exercise by the City of Arlington of its governmental functions for the protection of the public peace, health and safety; and neither the City nor agents and representatives of said City (or any individual, receiver, firm, partnership, corporation, association, trustee or any of the agents thereof, in good faith carrying out, complying with or attempting to comply with any order, rule or regulation promulgated pursuant to the provisions of this Ordinance) shall be liable for any damage sustained to persons or property as the result of said activity.

8. The amendment of Section 104, entitled **DUTIES AND POWERS OF THE FIRE CODE OFFICIAL**, by adding Section 104.14, entitled **Standard of care for emergency action**, which shall read as follows:

**104.14 Standard of care for emergency action.**

Every officer, agent or employee of the City, and every officer, agent, or employee of an authorized provider of emergency services, including, but not limited to every unit of government or subdivision thereof, while responding to emergency calls or reacting to emergency situations, regardless of whether any declaration of emergency has been declared or proclaimed by a unit of government or subdivision thereof, is hereby authorized to act or not to act in such a manner to effectively deal with the emergency. An action or inaction is "effective" if it in any way contributes or can reasonably be thought by the provider of such emergency service to contribute to preserving any lives or property. This Section shall prevail over every other ordinance of the City and, to the extent to which the City has the authority to so authorize, over any other law establishing a standard of care in conflict with this Section. Neither the City nor the employee, agent, or officer thereof; or other unit of government or subdivision thereof or its employees, agents, or officers shall be liable for failure to use ordinary care in such emergency. It is the intent of the City Council, by passing this Ordinance, to assure effective action in emergency situations by those entrusted with the responsibility of saving lives and property by protecting such governmental units from liability, and their employees, agents, and officers from non-intentional tort liability to the fullest extent permitted by statutory and constitutional law. This section shall be liberally construed to carry out the intent of the City Council.

9. The amendment of Section 105.1.1, et seq., entitled **Permits required**, to read as follows:

**105.1.1 Permits required.**

Permits as required by the Fire Code shall be issued by the Fire Marshal's Office upon the approval of the Fire Chief or designated representative. Such permits shall be issued in compliance with the Fire Code.

**105.1.1.1 Occupancy Permit.**

The occupancy permit as required by the Fire Code shall be the Certificate of Occupancy issued by the Building Official, in compliance with the provisions of the Fire Code and other related construction and health codes.

**105.1.1.2 Other Permits.**

Specific permits or special permits which are unrelated to construction or health codes may be issued by the Fire Code Official when dealing with items specifically pertaining to fire prevention.

**105.1.1.3 Penalties.**

Permit fees shall be tripled if a contractor has begun work without a permit. For the second and subsequent occurrence by the same contractor within two (2) years, the permit fees shall be quadrupled. A re-submittal fee will be assessed for plans that have been resubmitted more than two times (2X) and for each time thereafter. Re-submittal fees related to the Fire Code shall be set from time to time by resolution of the City Council.

10. The amendment of Section 105.2, entitled **Application**, to read as follows:

**105.2 Application.**

All applications for a permit required by the Fire Code shall be made to the Fire Marshal's Office in such form and detail as required by that division. Applications for permits shall be accompanied by plans, calculations, specifications, or any other documentation, as required by the Fire Marshal's Office.

11. The amendment of Section 105.5, entitled **Required operational permits**, to be retitled **Required operational permits and fees**, and to read as follows:

**105.5 Required operational permits and fees.**

A permit shall be obtained from the Fire Marshal's Office prior to engaging in any fire-related activities, operations, or functions. Permit fees shall be set from time to time by resolution of the City Council, payment of this fee shall be due to the City within thirty (30) days from the billing date and shall be subject to the penalties listed in Section 105.1.1.3.

12. The amendment of Section 105.5.39, entitled **Places of assembly**, by adding an Exception, which shall read as follows:

**Exception:**

An operational permit is not required for A-3 occupancies.

13. The amendment of Section 105.5, entitled **Required operational permits and fees**, by adding Sections 105.5.53, et seq., which shall read as follows:

**105.5.53 Emergency responder radio coverage system (ERRC).**

An operational permit is required for the operation and maintenance of an emergency responder radio coverage system, in accordance with Section 510.

**105.5.54 Fire fighter air replenishment system (FARS).**

An operational permit is required for the operation and maintenance of a fire fighter air replenishment system, in accordance with Appendix L – as amended – of this code.

**105.555 Mobile tank dispensing operations.** An operational permit is required for the operation of any mobile tank dispensing vehicle or operation that is conducted in accordance with Section 5706.2.8.

14. The amendment of Section 105.6, entitled **Required construction permits**, to be retitled **Required construction permits and fees**, and to read as follows:

**105.6 Required construction permits and fees.**

A permit shall be obtained from the Fire Marshal's Office prior to engaging in any work, as set forth in Sections 105.6.1 through 105.6.26. Permit fees shall be set from time to time by resolution of the City Council, payment of this fee shall be due to the City within thirty (30) days from the billing date and shall be subject to the penalties listed in Section 105.1.1.3.

15. The amendment of Section 105.6, entitled **Required construction permits and fees**, by adding Section 105.6.25, entitled **Electronic access control systems**, and Section 105.6.26, **Fire fighter air replenishment system (FARS)**, which shall read as follows:

**105.6.25 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.

A permit is not required for an approved installation of a "free-egress" locking arrangement that incorporates access control system(s) in accordance with Sections 1010.1.9.6 through 1010.1.9.10.

**105.6.26 Fire fighter air replenishment system (FARS).**

A construction permit is required for the installation or modification of any fire fighter air replenishment system, in accordance with Appendix L – as amended – of this code.

16. The amendment of Section 106.1, entitled **Submittals**, to read as follows:

**106.1 Submittals.**

Construction documents shall be submitted as required by the Fire Code Official. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

Final plans or other documents that will be archived must be submitted in an electronic format specified by the Director of Planning and Development Services

as a condition to issuance of any type of permit, approval, or other action related to the final plans or documents. The City may provide an electronic conversion service for a fee in the amount set forth by City Council resolution.

The Director of Planning and Development Services shall provide a schedule indicating which documents must be provided electronically, at which point during the approval process, and other information as necessary to implement an electronic archiving program.

17. The amendment of Section 107, entitled **FEES**, by deleting Section 107.3, entitled **Permit valuations**, in its entirety.
18. The amendment of Section 108.1, entitled **Inspection Authority**, by adding Section 108.1.1, entitled **Inspection fees.**, and Section 108.1.2, entitled **Re-inspection fees.**, which shall read as follows:

**108.1.1 Inspection fees.**

Any occupancy or premise hereafter opening for the purpose of doing business in the City of Arlington, as evidenced by application to the Building Official for a Certificate of Occupancy, or application for gas well blasting shall pay a fee for an initial fire inspection and for the establishment of an inspection file. This fee shall be set from time to time by resolution of the City Council and shall be collected by the Building Official at the same time that the Certificate of Occupancy fee is collected. An occupant or premise shall pay a fee for an annual fire code compliance inspection of the occupancy in an amount set from time to time by resolution of City Council and payment of this fee shall be due to the City within thirty (30) days from the billing date.

**108.1.2 Re-inspection fees.**

When it has been determined that a fire hazard or violation of the Fire Code exists in or upon any property, structure, vehicle, system or process, and the period of time given to correct the fire hazard or violation has expired, the Fire Chief or authorized representative shall conduct a re-inspection. A re-inspection fee will be set from time to time by resolution of City Council, collected by the City of Arlington, payable by the person receiving the order or notice to correct the violation, and payment of this fee shall be due to the City within thirty (30) days from the billing date. Payment of fees or fines assessed under this chapter does not permit or excuse the continuation of a violation or the fire hazard.

19. The amendment of Section 108.2, entitled **Inspections**, to read as follows:

**108.2 Inspections.**

The Fire Code Official is authorized to conduct such inspections, including annual fire inspections, as are deemed necessary to determine the extent of compliance



with the provisions of this code and to approve reports of inspection by approved agencies or individuals. All reports of such inspections shall be prepared and submitted in writing for review and approval. Inspection reports shall be certified by a responsible officer of such approved agency or by the responsible individual.

The Fire Code Official is authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed or complex technical issues subject to the approval of the City Manager designee charged with administration of this chapter. In the event a technical advisor is employed for the purpose of advising, counseling or representing the city relative to a unique and particular set of circumstances, case or request relating to this code, then the cost of the services of the technical advisor shall be assessed against and paid for by any occupancy or premise permit holder or other permit holder as evidenced by application to the Building Official for a Certificate of Occupancy, or application for any permit under this chapter. This expense is in addition to any charges or other fees assessed pursuant to this chapter. Prior to the employment of a technical advisor, the City of Arlington shall inform the permit holder or applicant of the intended scope of work and the estimated costs and expenses.

20. The amendment of Section 109.6, entitled **Overcrowding**, to read as follows:

**109.6 Overcrowding.**

Overcrowding or admittance of any person beyond the approved capacity of a building or a portion thereof shall not be allowed. The Fire Code Official, upon finding any overcrowding conditions or obstructions to aisles, passageways, or other means of egress, or upon finding any condition that constitutes a life safety hazard, shall be authorized to cause the event to be stopped until such conditions or obstructions are corrected. Additionally, the Fire Code Official may require a dedicated person with an approved means to track ingress and egress to maintain the approved capacity of a building.

21. The amendment of Section 111, entitled **MEANS OF APPEALS**, to read as follows:

**SECTION 111  
MEANS OF APPEALS**

**111.1 Building Code Board of Appeals sitting as Fire Prevention Board of Appeals.**

In order to hear and decide appeals of orders, decisions or determinations made by the Fire Code Official relative to the application and interpretation of this chapter or determine the suitability of alternate materials and types of construction and to provide for reasonable interpretations of the provisions of the Fire Code, the Building Code Board of Appeals as created and organized under the "Construction" Chapter of the Code of the City of Arlington shall consider and decide all such matters. In addition to such Board, the Fire Chief or authorized representative may

request that additional members be appointed for a specific ruling or interpretation. Such members shall be ex-officio members and shall be appointed by the Chairman of the Building Code Board of Appeals to assist in the determination and/or ruling of a specific issue or case. Such appointment shall be temporary until the ruling is rendered. No more than two (2) ex-officio members shall be appointed at such time, each having expertise in the matter of question.

#### **111.2 Quorum.**

A majority of the members of the Board shall constitute a quorum for the transaction of business, and an affirmative vote by a majority of all members present and voting shall be required to vary the application of any provision of the Fire Code or to modify any order of the Fire Chief or authorized representative. No Board member shall act in any case in which he has a personal interest.

#### **111.3 Records.**

The Fire Chief or authorized representative shall act as Secretary of the Board of Appeals and shall make a detailed record of all its proceedings, which record shall set forth the reasons for the Boards decisions, the vote of each member participating therein, the absence of a member and any failure of a member to vote.

#### **111.4 Procedure.**

The Board shall establish rules and regulations for its own procedure not inconsistent with the provisions of the Fire Code. The Board shall meet at regular intervals to be determined by the Chairman or within thirty (30) days after notice of appeal has been received by the Board.

#### **111.5 Appeals; Time limit.**

Whenever the Fire Chief or authorized representative shall reject or refuse to approve the mode or manner of fire prevention or fire safety proposed to be followed, or materials to be used in the erection or alteration of a building or structure, or when there is an appeal of an order, decision or determination made by the Fire Code Official relative to the application and interpretation of this chapter or when it is claimed that the provisions of the Fire Code do not apply or that an equally good or more desirable form of fire prevention or fire safety can be employed in any specific case, or when it is claimed that the true intent and meaning of the Fire Code or any of the regulations thereunder have been misconstrued or wrongly interpreted, the owner of such building or structure or duly authorized agent may appeal the decision of the Fire Chief or authorized representative to the Board. Notice of appeal shall be made in writing and filed within thirty (30) days after the decision is rendered by the Fire Chief or authorized representative. An administrative fee shall accompany such notice of appeal, which shall be made on a form provided by the Fire Chief. The amount of such fee shall be as defined in the "Construction" Chapter of the Code of the City of Arlington.

In case of a condition which, in the opinion of the Fire Chief or authorized representative, is unsafe or dangerous, the Fire Chief or authorized representative

may limit the time for such appeal to a shorter period. Nothing in this Section shall act to limit the ability of the Fire Chief to exercise powers granted in other sections of the Fire Code to respond to immediate hazards and emergencies.

Initiating work or progressing with that portion of work which is the particular issue on appeal or progressing with work which would cover the matter on appeal shall void such appeal.

**111.6 Board decisions; Variations and modifications.**

The Board, when appealed to, shall conduct a hearing, and after such hearing, may vary the application of any provision of the Fire Code to any particular case when, in its opinion, the enforcement thereof would do manifest injustice and would be contrary to the spirit and purpose of the Fire Code or the public interest, or when, in its opinion, the interpretation of the Fire Chief or authorized representative should be modified or reversed. The Board may recommend to the City Council such new legislation as is consistent therewith.

A decision of the Board to vary the application of any provision of the Fire Code or to modify an order of the Fire Chief or authorized representative shall specify in what manner such variation or modification is made, the conditions upon which it is made and the reasons therefore.

All decisions of the Board shall reflect alternative or equivalent provisions to provide for compliance with the spirit of the Fire Code. In all cases, alternative or equivalent protection shall be provided if compliance with a particular requirement is deemed to be impractical.

**111.7 Board decisions; Procedure.**

Every decision of the Board shall be final, subject, however, to such remedy as any aggrieved party might have at law or in equity. The decision shall be in writing and shall indicate the vote upon the decision. Every decision shall be promptly filed in the Fire Chief's office or authorized location, and shall be open to the public for inspection. A true and correct copy of the decision shall be sent by mail or otherwise to the appellant, and a copy shall be publicly posted at a prominent location within the City for two (2) weeks after the filing thereof.

The Board shall in every case reach a decision without unreasonable or unnecessary delay. If a decision of the Board reverses or modifies a refusal, order or disallowance of the Fire Chief or authorized representative, or varies the application of any provision of the Fire Code, the Fire Chief or authorized representative shall immediately take action in accordance with such decision.

Any person, firm or corporation aggrieved by any decision of the Board may present to a court of record a petition, duly verified, setting forth that such decision is illegal in whole or in part, and specifying the grounds of the illegality. Unless

such petition (appeal) shall be presented to the court within ten (10) days of the decision of the Board, the decision of the Board shall become final.

22. The amendment of Section 112.2, entitled **Owner/occupant responsibility**, to read as follows:

**112.2 Owner/occupant responsibility.**

It shall be the responsibility of the owner, occupant, or person in control of a building or premises to correct and abate all violations of the Fire Code that are present at the building or premises.

23. The amendment of Section 112, entitled **VIOLATIONS**, by deleting Section 112.3.3, entitled **Prosecution of violation**, in its entirety.

24. The amendment of Section 112, entitled **VIOLATIONS**, by adding Section 112.3.5, entitled **Presumption**, which shall read as follows:

**112.3.5 Presumption.**

The owner, occupant or person in control of any building or premises where any violation of the Fire Code or other ordinances of the City of Arlington relating to fire safety is found shall be prima facie responsible for such violation.

When any vehicle is in violation of any provision of this fire code, such fact shall constitute prima facie proof that the person in whose name said vehicle is registered is guilty of a violation of this fire code.

25. The amendment of Section 112.4, entitled **Violation penalties**, to read as follows:

**112.4 Violation penalties.**

A person commits an offense that is considered a Class C misdemeanor if the person:

1. violates or fails to comply with any of the provisions of the Fire Code or the standards adopted hereunder; or
2. fails to comply within the time fixed herein with any order made by the Fire Chief or authorized representative under any of the provisions of the Fire Code or the standards adopted hereunder, from which no appeal has been taken, or which has been affirmed or modified by a court of competent jurisdiction; or
3. builds in violation of any detailed statement, specifications or plans submitted and approved under the provisions of the Fire Code or the standards adopted hereunder, from which no appeal has been taken; or

4. builds in violation of any certificate or permit issued under the provisions of the Fire Code or the standards adopted hereunder, from which no appeal has been taken; or
5. permits any fire hazard to exist in or upon any occupancy, premises or vehicle under their control, operation, maintenance or possession; or
6. fails to comply with orders, notices, signs and/or tags; or
7. tampers with signs and/or tags;

When not otherwise specified, each day that prohibited conditions are allowed, kept, or maintained, shall constitute a separate offense.

If the definition of an offense herein does not prescribe a culpable mental state, then a culpable mental state is not required. Such offense shall be punishable by a fine not to exceed Five Hundred Dollars and No Cents (\$500.00). Although not required, if a culpable mental state is in fact alleged in the charge of the offense and the offense governs fire safety, zoning, or public health and sanitation, including dumping of refuse, such offense shall be punishable by a fine not to exceed Two Thousand Dollars and No Cents (\$2,000.00).

If the definition of an offense under this Chapter prescribes a culpable mental state and the offense governs fire safety, zoning, or public health and sanitation, including the dumping of refuse, then a culpable mental state is required and the offense shall be punishable by a fine not to exceed Two Thousand Dollars and No Cents (\$2,000.00).

The imposition of one (1) penalty for any violation shall not excuse the violation or permit it to continue, and all such persons shall be required to correct or remedy such violations of defects within a reasonable time specified by the Fire Chief or authorized representative.

26. The amendment of Section 112, entitled **VIOLATIONS**, by adding Section 112.4.2, entitled **Enforcement of outdoor or open burning violations**, which shall read as follows:

**112.4.2 Enforcement of outdoor or open burning violations.**

When conduct involving outdoor or open burning violates both a provision of this Fire Code and an applicable rule of the Texas Commission on Environmental Quality, such conduct may only be prosecuted or enforced under this Fire Code if the violation is the first such violation and does not involve the burning of heavy oils, asphaltic materials, potentially explosive materials, or chemical wastes. Second or subsequent violations as well as violations involving the burning of substances described by this Section shall be enforced under the following state law provisions, as applicable:

Texas Water Code Section 7.187, as amended; Texas Health and Safety Code Section 382.018, as amended; and Title 30, Texas Administrative Code, Chapter 111, Subchapter B, as amended.

27. The amendment of Section 113.4, entitled **Failure to comply**, to read as follows:

**113.4 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 to a fine of up to Two Thousand Dollars (\$2,000.00).

28. The amendment of Section 114, entitled **UNSAFE STRUCTURES OR EQUIPMENT**, by adding Section 114.1.3, entitled **Compliance**, which shall read as follows:

**114.1.3 Compliance.**

No person shall remain in or enter any premises, building or vehicle which has been so posted, except that entry may be made to repair, demolish or remove the fire hazard or unsafe condition. Such entry or the destruction, defacing or removal of said notice prior to approval by the Fire Chief or authorized representative shall be a violation of this Fire Code.

29. The amendment of Section 114.7, entitled **Summary abatement**, to read as follows:

**114.7 Summary abatement.**

All buildings or structures which are structurally unsafe or not provided with adequate egress, or which constitute a fire hazard or are otherwise dangerous to human life, or which in relation to existing use constitute a hazard to safety or health or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster damage or abandonment as specified in the Fire Code or any other effective statute or ordinance, are, for the purpose of this section, unsafe buildings. All such unsafe buildings are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition, or removal in accordance with the procedure specified in the "Construction" Chapter of the Code of the City of Arlington.

30. The amendment of Section 202, entitled **GENERAL DEFINITIONS**, by adding and/or amending the following definitions:

**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 individuals who are rendered incapable of self-preservation. This group may include, but is not limited to, the following:

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

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

**ATRIUM.** An opening connecting three or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning, or other equipment, which is enclosed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups or mezzanines that comply with Section 505 of the International Building Code.

**AUTHORIZED REPRESENTATIVE.** Individuals holding positions, shall include, but not be limited to: Fire Inspector, Building Inspector, Code Enforcement Inspector, Housing Inspector and Police Officers.

**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 MARSHAL'S OFFICE.** The Fire Prevention Division of the Fire Department of the City of Arlington. This Division may also be known as the Fire Marshal's Office.

**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. Where required by the fire code official, high-piled combustible storage also includes certain high-

hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

Any building exceeding 12,000 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 and shall comply with the provisions of this code.

**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 replacements, and other such minor repairs.

**[BG] RESIDENTIAL GROUP R-3.** Residential occupancies where the occupants are primarily permanent in nature and that is not classified as Group R-1, R-2, R-4, or I, to include:

- Buildings that do not contain more than two dwelling units
- Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours
- Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours
- Congregate living facilities with 16 or fewer persons
- Adult care and child care facilities with five or fewer unrelated persons that are within a single-family home are permitted to comply with the International Residential Code

**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.

**SHALL.** As it applies to an act or duty to be performed by an authorized representative, the fire code official, or fire chief, pursuant to any section of the Fire Code, is discretionary. Its use in all other applications in the Fire Code shall be mandatory.

**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

31. The amendment of Section 305.4, entitled **Deliberate or negligent burning**, to read as follows:

**305.4 Deliberate or negligent burning.**

It shall be unlawful for a person intentionally, knowingly, recklessly, or with criminal negligence to set fire to or cause the burning of combustible materials in such a manner as to endanger the safety of persons or property.

32. The amendment of Section 307.1, entitled **General**, to read as follows:

**307.1 General**

A person shall not kindle or maintain or authorize to be kindled or maintained any open burning unless conducted and approved in accordance with this section. Open burning shall be conducted in trenches with approved equipment and in accordance with Section 307.

33. The amendment of Section 307.1.1, entitled **Prohibited open burning**, 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. The building of fires upon the paved portions of public streets and any right-of-way; building fires at construction sites; and building fires for the purpose of burning trash, leaves, grass clippings, or other unapproved debris is prohibited except as otherwise provided for by this code.

34. The amendment of Section 307.2, entitled **Permit required**, 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 open burning.

35. The amendment of Section 307.3, entitled **Extinguishment authority**, 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.

36. The amendment of Section 307.4, entitled **Location**, to read as follows:

**307.4 Location.**

Open burning shall not be conducted within 1,000 feet of any structure. Conditions which could cause the fire to spread to within 1000 feet of a structure shall be eliminated prior to ignition. All open burning must be done by trench burning. Trench burns shall be conducted in air curtain trenches.

37. The amendment of Section 307.4.1, entitled **Bonfires**, to read as follows:

**307.4.1 Bonfires**

Bonfires are prohibited within city limits.

38. The amendment of Section 307.4.3, entitled **Portable outdoor fireplaces**, by adding the following Exception to read as follows:

**Exception 2:** Where buildings, balconies, and decks are protected by an approved automatic sprinkler system.

39. The amendment of Section 307.4, entitled **Location**, by adding Section 307.4.4, entitled **Permanent outdoor firepit**, which shall read as follows:

**307.4.4 Permanent outdoor firepit**

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

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

40. The amendment of Section 307.5, entitled **Attendance**, to read as follows:

**307.5 Attendance**

Open burning, recreational fires, trench burning and the use of portable outdoor fireplaces shall constantly be 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.

41. The amendment of Section 308.1.4, entitled **Open-flame cooking**, to be retitled **Open-flame cooking devices**, and to read as follows:

**308.1.4 Open-flame cooking devices.** Charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet of combustible construction. R-2 occupancies shall post on the balconies, or other approved locations by the Fire Code Official, the following signage: "No cooking using open flame devices within 10 feet of structure. Violations may lead to a fine up to \$2,000 – by Order of the Fire Marshal". Residential complex management has the right to continue not to allow the use or storage of grills, as they deem necessary.

**Exception:**

1. One- and two-family dwellings.
2. Where buildings, balconies, and decks are protected by an automatic fire sprinkler system.

42. The amendment of Section 308.1.6.3, entitled **Sky lanterns**, to read as follows:

**308.1.6.3 Sky lanterns.**

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

43. The amendment of Section 312.1, entitled **General**, to read as follows:

**312.1 General.**

Vehicle impact protection required by the Fire Code Official for the purpose of public safety, security, or otherwise required by this code shall be provided by posts that comply with Section 312.2 or by other approved physical barriers that comply with Section 312.3.

44. The amendment of Section 315.3.3, entitled **Equipment rooms**, to read as follows:

**315.3.3 Equipment rooms.**

Storage shall not be allowed within elevator machine rooms, control room, machinery spaces, control spaces, hoistways, boiler rooms, mechanical rooms, electrical equipment rooms, or in fire command centers as specified in Section 508.1.5. Approved signage at each entry to these areas shall be posted which states: "No Storage Allowed".

45. The amendment of Chapter 3, entitled **GENERAL REQUIREMENTS**, by adding Section 322, entitled **REMOVAL OF DEBRIS OR BURNED STRUCTURES**, which shall read as follows:

**SECTION 322  
REMOVAL OF DEBRIS OR BURNED STRUCTURES**

**322.1 Removal of materials.**

The owner or person in control or possession of any substances which have been rendered useless or unmerchantable by reason of any fire or other disaster shall remove said articles within forty-eight (48) hours after notice has been given by the Fire Code Official.

**322.2 Burned structures.**

Whenever any building or other structure in the City is partially burned, the owner or the person in control shall, within ten (10) days after notice from the Fire Code Official or the Building Code Official or their authorized representatives, remove from the premises all refuse, debris, charred and partially burned lumber and material. If a building or other structure is burned to such an extent that it is rendered incapable of being repaired, the owner or the person in control shall, within ten (10) days after notice from the Fire Code Official or the Building Code Official or their authorized representatives, remove from the premises all the remaining portions of the building or structure.

46. The amendment of Section 403.4, entitled **Group E Occupancies**, to read as follows:

**403.4 Group E Occupancies.**

An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. A diagram depicting two evacuation routes shall be posted in a conspicuous location in each classroom. Group E occupancies shall also comply with Sections 403.4.1 through 403.4.3.

47. The amendment of Section 404.2.2, entitled **Fire Safety Plans**, by adding the following to the list of applicable plans:

4.10. Fire extinguishing system controls.

48. The amendment of Section 405.3, entitled **Frequency**, to amend Table 405.3, entitled **Fire Evacuation Drill Frequency and Participation**, to amend the frequency required for Group I-1 to read as follows:

<b>Group or Occupancy</b>	<b>Frequency</b>	<b>Participation</b>
Group I-1	Monthly on each shift	All occupants

All other groups or occupancies remain unchanged.

49. The amendment of Section 405.5, entitled **Time**, to read as follow:

**405.5 Time.**

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

**Exceptions:**

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

50. The amendment of Section 501.4, entitled **Timing of installation**, 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, unless otherwise approved by the Fire Code Official.

51. The amendment of Section 503, entitled **FIRE APPARATUS ACCESS ROADS**, to read as follows:

**SECTION 503  
FIRE APPARATUS ACCESS ROADS**

**503.1 Where required.**

Fire apparatus access roads, hereinafter also known as *fire lanes*, shall be provided and maintained in accordance with the provisions of Section 503. A permit shall be obtained prior to the construction of any fire lane, in accordance with Section 105. Structural aspects of fire lanes shall meet all other applicable standards as adopted by the City of Arlington. No person shall mark, post or otherwise identify a non-fire lane street, whether public or private, as a fire lane.

### **503.1.1 Buildings and Facilities.**

All buildings, facilities or structures shall be constructed in such a way that every part of the first story is within one hundred fifty feet (150') of an approved street or fire lane as measured by the route necessary to extend firefighting hose lines around the building. The path of measurement shall be along a minimum of a ten-foot (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 where:
  - a. The building is equipped with an approved automatic sprinkler system, in accordance with Section 903.
    - i. When a building is provided with a complete automatic fire sprinkler system and the building exceeds one hundred fifty feet (150') in length or width on any side, a fire lane or dedicated street shall be within one hundred fifty feet (150') of the entire length of one (1) of the longest sides of the building.
  - b. Fire apparatus access roads cannot be installed due to location on property, topography, waterways, non-negotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
  - c. There are not more than two (2) Group R-3 or Group U occupancies.
  - d. Approved standpipe connections are provided where deemed necessary by the Fire Chief or authorized representative.
2. Where approved by the Fire Code Official, fire lanes shall be permitted to be exempt or modified for solar photovoltaic power generation facilities.

### **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 and other factors that could limit access.

**503.1.3 High-piled storage**

Fire department vehicle access roads to buildings used for high-piled combustible storage shall comply with the applicable provisions of Chapter 32.

**503.1.4 Retroactive requirement.** Fire lanes conforming to the specifications of Section 503 may be required by the Fire Chief or authorized representative for existing buildings when conditions justify their existence.

**503.1.5 Maintenance.** All designated fire lanes shall be maintained and kept in a state of good repair at all times by the owner or person in control of the premises. If permitted, growth shall not be more than two inches (2") in height and shall not cover up any markings identifying the fire lane. The City shall not be responsible for the maintenance thereof.

**503.1.6 Enforcement.** The Fire Chief or Police Chief, or their authorized representatives, are hereby authorized to monitor fire lanes to detect obstructions and may issue citations, remove and impound any vehicle obstructing said fire lane, or both. Additionally, any duly authorized City inspector whose duty it is to enforce the provisions of the Fire Code may issue citations for such violations.

**503.2 Specifications**

Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8

**503.2.1 Dimensions.**

The minimum unobstructed width of a fire lane shall be not less than twenty-four feet (24') and an unobstructed vertical clearance of not less than fourteen feet (14') unless otherwise approved by the Fire Code Official.

**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.

**503.2.3 Surface**

Fire lanes shall be provided with a concrete or asphalt surface to provide all-weather driving capabilities and shall be constructed to support the imposed weight of an eighty-five thousand pound (85,000lb) vehicle. Other surfaces and alternative construction methods shall be approved by the Fire Code Official.

**Exceptions:**

1. Grass pavers may be used in place of concrete or asphalt, when approved by the Fire Code Official. If approved, the fire lane must be bordered on both sides by a 6-inch raised concrete curb, which runs continuously the entire length of the grass paver installation. The installation of grass pavers must meet all other requirements of Section 503 of this Fire Code.
2. Gas well drill sites must comply with Section 5706.3.1.2.1.

**503.2.4 Turning radius.**

All fire lanes shall have at least a thirty foot (30') inside turning radius and at least a fifty-four foot (54') outside turning radius.

**503.2.5 Dead ends**

Dead-end fire apparatus access roads in excess of 150 feet (45 720mm) in length shall be provided with an approved area for turning around fire apparatus.

**503.2.6 Bridges and elevated surfaces**

Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges where required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces that are not designed for such use, approved barriers, approved signs or both shall be installed and maintained where required by the fire code official.

**503.2.7 Grade**

Fire lanes shall not exceed eight percent (8%) in grade, as measured on the driving surface.

**503.2.8 Angle of approach and departure**

The angles of approach and departure for fire lanes shall not exceed 8%.

**503.3 Marking.**

Where required by the Fire Code Official, approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs or notices shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.



**503.3.1 Specifications for marking.**

All required fire lanes shall be provided and maintained with fire lane striping which consists of a six inch (6") wide red background stripe with four inch (4") high white letters stating "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" to be painted upon the red stripe no less than every ten feet (10') and no greater than every twenty-five feet (25') along the entire length of the fire lane, showing the exact boundary of the fire lane. Markings shall be upon the vertical surface of the curb unless otherwise approved by the Fire Chief or authorized representative.

**503.3.2 Additional signs.**

When it has been determined by the Fire Chief or authorized representative that other means of notice are ineffective to designate a fire lane, signs may be required. These signs shall be in accordance with the requirements of the *Texas Manual of Uniform Traffic Control Devices*. When required, these signs shall be erected and maintained bearing a red legend stating "NO PARKING FIRE LANE" with letters of at least two inches (2") in height on a white reflectorized background at least twelve inches (12") wide by eighteen inches (18") tall. 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 as approved by the Fire Chief or authorized representative. Additional signs may also be required by the Fire Chief or authorized representative.

**503.4 Obstruction of Fire Apparatus Access Roads.**

Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and 503.2.2 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

**503.5 Required gates or barricades.**

The fire code official is authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails or other accessways, not including public streets, alleys or highways. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

**503.5.1 Secured gates and barricades.**

Where required, gates and barricades shall be secured in an approved manner. Roads, trails and other accessways that have been closed and obstructed in the manner prescribed by Section 503.5 shall not be trespassed on or used unless authorized by the owner and the fire code official.

**Exception:** The restriction on use shall not apply to public officers acting within the scope of their duty.

**503.6 Security gates.**

Where security gates are installed at locations that cross public streets or fire lanes, they shall be maintained to open/close without difficulty at all times and an approved means of emergency operation shall be provided and maintained.

Approved means of emergency operation for all manually operated gates shall, at minimum, include the installation of an approved manual unlocking device or system.

Approved means of emergency operation for all automatically operated gates shall, at minimum, include: the installation of an approved manual unlocking device or system, the installation of an approved electronically controlled unlocking device or system, and the installation of an approved Opticom receiver. These devices or systems shall be approved by the Fire Code Official prior to installation. Once installed, an acceptance test witnessed by the Fire Code Official shall be performed before placing any system or gate into operation.

**503.6.1 Electric fences and gates.**

An approved means of emergency disconnect shall be provided for all electrified fences and gates. This means shall be universal throughout the jurisdiction and shall comply with the approved key box/lock design of Section 506.

52. The amendment of Section 505.1, entitled **Address numbers**, to read as follows:

**505.1 Address numbers.**

Approved numbers or addresses shall be placed on all new and existing buildings, structures/mobile homes in such a position as to be plainly visible and legible from the street or road fronting the property. Address numbers may be posted upon approved ground signs, if permitted by the Unified Development Code, with address numbers being a minimum of twenty-four inches (24") above grade. Said numbers shall be a minimum of four inches (4") tall and contrast with their background.

However, numbers for multi-family dwelling complexes shall comply with Article XVI of the "Uniform Housing" Chapter of the adopted code.

53. The amendment of Section 507, entitled **FIRE PROTECTION WATER SUPPLIES**, by adding Section 507.1.1, entitled **Required water supply to fire pumps in high-rise buildings**, to read as follows:

**507.1.1 Required water supply to fire pumps in high-rise buildings.**

In buildings that are more than 120 feet in 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.

54. The amendment of Section 507.4, entitled **Water supply test**, to read as follows:

**507.4 Water supply test.**

The Fire Code Official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the Fire Code Official and approved documentation of the test shall be provided prior to final approval of the water supply system. When flow or pressure tests are witnessed and/or results are given at the request of any person, a fee as set forth in the approved schedule of fees will be charged.

55. The amendment of Section 507.5.1, entitled **Where required**, to read as follows:

**507.5.1 Where required.**

An approved water supply capable of supplying required fire flow for fire protection shall be provided to all premises upon which facilities, buildings or portions of buildings are hereafter constructed. Fire hydrants and mains capable of supplying the required fire flow shall be provided.

The location, number and type of fire hydrants connected to a water supply capable of delivering the required fire flow shall be provided on the public street or on the site of the premises to be protected as required and approved by the Fire Chief or authorized representative. Fire hydrants shall be installed in accordance with the following criteria:

1. For all one (1) and two (2) family residences, excluding townhouses and apartments, fire hydrants shall be installed when any portion of the building is in excess of six hundred feet (600'), as measured by an *approved* route around the exterior of the building, from the nearest water supply on a public street.
2. For all other land uses, and including townhouses and apartments, fire hydrants shall be installed when any exterior portion of the building is in excess of five hundred feet (500'), as measured by an *approved* route around the exterior of the building, from the nearest water supply on a public street.
3. A fire hydrant shall be placed at all intersecting streets to cul-de-sacs two hundred feet (200') and greater in length.

4. An additional fire hydrant is required for every 2000 G.P.M. of fire flow for non-sprinklered buildings.
56. The amendment of Section 507.5.3, entitled **Private fire service mains and water tanks**, to be retitled **Private fire hydrants, service mains and water tanks**, and to read as follows:

**507.5.3 Private fire hydrants, service mains and water tanks.**

Private fire hydrant systems, which includes, but is not limited to, private fire hydrants, service mains, and water tanks, shall be periodically inspected, tested and maintained in accordance with NFPA 25 at the following intervals:

1. Private fire hydrants (all types): Inspection annually and after each operation; flow test and maintenance annually.
2. Fire service main piping: Inspection of exposed, annually; flow test every 5 years.
3. Fire service main piping strainers: Inspection and maintenance after each use.
4. Private dead-end mains shall be flushed in accordance with the Texas Commission on Environmental Quality standards.

**507.5.3.1 Owner responsibility for private fire hydrant systems.**

The owner of the premises or building where any portion of a private fire hydrant system is located is responsible for the private fire hydrant system and shall operate and maintain the private fire hydrant system in accordance with all federal, state, and local laws and ordinances. The City is not responsible or liable for the design, construction, operation, maintenance, or use of private fire hydrant systems and any associated private water line easements.

**507.5.3.2 Water use detection device required.**

All private fire hydrant systems shall be installed with a water use detection device for the purpose of detecting water leakage or illegal water use. In the event of illegal water usage or leakage, the owner of the private fire hydrant system shall remove any illegal connections or repair any leaks at the owner's expense within 24 hours of notification. If the situation is not corrected within said 24 hour period, the City shall have the right to discontinue water service to the system in accordance with the law and notify the Fire Department of the situation. The owner must pay for water usage as estimated by the City from the time of notification to the time the situation is corrected.

If an inoperative private fire hydrant system is not repaired within 24 hours after notification to the owner, the City has the right, but is not required, to repair the private fire hydrant system and bill the property owner for the repair. Nonpayment of a repair bill or any water usage bill will result in water service being discontinued in accordance with the law.

Nothing herein shall restrict the City's authority pursuant to Section 901.7.

**507.5.3.3 No improvements in private fire system easement.**

No improvements, other than paving and the private fire hydrant system, shall be allowed within a private water easement without the advance written permission of the Fire Department.

57. The amendment of Section 507.5.4, entitled **Obstructions**, to read as follows:

**507.5.4 Obstructions.**

Unobstructed access to fire hydrants shall be maintained at all times. Posts, fences, vehicles, vegetation 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 discernable. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

58. The amendment of Section 507, entitled **FIRE PROTECTION WATER SUPPLIES**, by adding Section 507.5.7, entitled **Markings**, which shall read as follows:

**507.5.7 Markings.**

Unless written approval is granted from the Fire Code Official, all newly installed fire hydrants – public or private – shall be accompanied by an approved blue, reflective road marker. These devices shall be located on the roadway or fire lane in an approved location, so that the fire hydrant is readily identifiable to responders.

The entire bonnet of all private fire hydrants shall be painted red in color; all other hydrants shall be entirely silver in color. No other markings, paint, or decorations shall modify any fire hydrant without the approval of the Fire Code Official.

59. The amendment of Section 509, entitled **FIRE PROTECTION AND UTILITY EQUIPMENT IDENTIFICATION AND ACCESS**, by adding Section 509.1.2, entitled **Sign Requirements**, which shall 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.

60. The amendment of Section 510.1, entitled **Emergency responder communication coverage in new buildings**, by deleting Exception 1 in its entirety.

61. The amendment of Section 510.4, entitled **Technical requirements**, to read as follows:

**510.4 Technical requirements.**

Equipment required to provide in-building, two-way emergency responder communication coverage shall be listed in accordance with UL 2524. Systems, components and equipment required to provide the in-building, two-way emergency responder communication coverage system shall comply with Section 510.4.1 through 510.4.2.8.

In order to determine if a DAS/BDA system is necessary to meet the requirement for adequate radio communications for Public Safety first responders, building owners shall have a radio signal strength and coverage analysis performed by a radio systems engineer which provides both Relative Signal Strength Indication (RSSI) and Voice Quality (DAQ).

62. The amendment of Section 510.4.1.1, entitled **Minimum signal strength into the building**, to read as follows:

**510.4.1.1 Minimum signal strength into the building.**

A minimum signal strength of -95 dBm or 18 dB above the noise floor (whichever is more stringent), shall be provided throughout the coverage area.

63. The amendment of Section 510.5, entitled **Installation requirements**, to read as follows:

**510.5 Installation requirements.**

The installation of public safety radio coverage system or any other radio system, capable of using such frequencies, shall be in accordance with Sections 510.5.1 through 510.5.5, Section 9.6 of NFPA 1221, and the most current edition of the City of Arlington Texas Enhanced Radio Coverage Information Packet.

All systems shall incorporate an approved emergency shut down (ESD) device installed in an approved location, which is safeguarded from tampering or

accidental activation, that immediately terminates power to the system. This device shall be a button or switch that can be operated without the use of a key, code, or other restrictive function.

64. The amendment of Section 510.5.2, entitled **Approval prior to installation**, to read as follows:

**510.5.2 Approval prior to installation.**

Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior coordination, submittal of frequency ranges, and approval of the Fire Code Official.

65. The amendment of Section 510.5.3, entitled **Minimum qualifications of personnel**, by adding the following sentence to the section:

The personnel performing and submitting the evaluation in accordance with Section 510.4 shall be a radio system engineer who also meets the above qualifications.

66. The amendment of Chapter 5, entitled **FIRE SERVICE FEATURES**, by adding Section 511, entitled **AUTOMATED EXTERNAL DEFIBRILLATOR (AED) REQUIREMENTS**, which shall read as follows:

**SECTION 511**

**AUTOMATED EXTERNAL DEFIBRILLATOR (AED) REQUIREMENTS**

**511.1 General.**

"Automated External Defibrillator (AED)" means a heart monitor and defibrillator that meets the requirements of the Texas Health and Safety Code and applicable federal law, as amended.

**511.2 Responsibility.**

"AED Owner" means a person or entity that owns or possesses an Automatic External Defibrillator. Vendors or dealers that own or possess AEDs solely for resale are not included as owners for the purposes of this ordinance.

**511.3 Duties of AED Owner.**

Any person who presently owns or acquires an AED on or after the effective date of this ordinance, that is intended to be available or used by the public or onsite employees of any kind, other than vendors or dealers of AEDs owning or possessing AEDs solely for resale purposes, shall:

**511.3.1 Registration.**

Register the AED with the Arlington Fire Department Emergency Medical System Administrator. The registration shall include information about

AED location, and the names of all persons expected to operate the AED, and the dates of training. A form will be provided by the Fire Chief.

**Exception:**

1. Any AED possessed and used solely for demonstration or training purposes, and which would not be operational in an actual emergency use situation, shall be exempt from the registration requirements of this section. Any such AED shall be clearly marked on its exterior and readily identifiable as not appropriate for emergency use.

**511.3.2 Maintenance.**

Inspect, test, store, maintain and service the AED in accordance with all federal and state laws and regulations, and in accordance with any standards established by the AED manufacturer.

**511.3.3 Notification of usage.**

Notify the Arlington Fire Department as soon as possible, but in no event any later than 24 hours following any use of the AED, and provide the Arlington Fire Department with information relevant to the incident, including but not limited to the date, time and location of use, name of person the AED was used upon, the printout from the AED, and the nature of other emergency response to the incident, including the name and address of any hospital, clinic or medical provider to which the person was transported following the AED use.

**511.4 AED sales.**

All persons selling an AED within the city, or which may reasonably be anticipated to be used within the city, shall:

1. Report the sale of the AED to the Fire Department. The information to be reported shall include the date of the sale, the manufacturer, model and serial number of the AED sold, the name and address of the seller and the name of the purchaser, whether the AED sold is new or previously used, and, if known, the location where the AED is to be placed; and
  2. Require that the purchaser provide proof that it has or will have complied with the training and other requirements of this ordinance at the time of transfer of the AED to the purchaser for deployment and use by the purchaser.
67. The amendment of Section 604.5.4, entitled **Water protection of hoistway enclosures**, to read as follows:



**604.5.4 Water protection of hoistway enclosures.**

Methods to prevent water from infiltrating into a hoistway enclosure required by Section 3007.3 and Section 3008.3 of the International Building Code, as amended, shall be maintained. This shall include an approved method to prevent water from the operation of the automatic sprinkler system outside the elevator lobby to be provided.

68. The amendment of Section 604, entitled **ELEVATOR OPERATION, MAINTENANCE, AND FIRE SERVICE KEYS**, by adding Section 604.8, entitled **Elevator shunt trip**, which shall read as follows:

**604.8 Elevator shunt trip.**

Means of elevator shutdown ("shunt-trip") in accordance with Section 3005.5 of the International Building Code shall not be installed on any elevators that comply with Section 607 of this code.

69. The amendment of Section 605.4, entitled **Fuel oil storage systems**, through Section 605.4.2.2, entitled **Quantity limits**, to read as follows:

**605.4 Fuel oil storage systems.**

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

**605.4.1 Fuel oil storage in outside, above-ground tanks.**

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

**605.4.1.1 Approval.**

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

**605.4.2 Fuel oil storage inside buildings.**

Fuel oil storage inside buildings shall comply with Sections 605.4.2.2 through 605.4.2.8 and Chapter 57.

**605.4.2.1 Approval.**

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

#### 605.4.2.2 Quantity limits.

One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142 or UL 2085, 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. The tank shall be listed as a secondary containment tank, and the secondary containment shall be monitored visually or automatically.
3. 3,000 gallons (11 356 L) in buildings equipped with an automatic sprinkler system in accordance with Section 903.3.1.1, where stored in protected above-ground tanks complying with UL 2085 and Section 5704.2.9.7. The tank shall be listed as a secondary containment tank, as required by UL 2085, and the secondary containment shall be monitored visually or automatically.

70. The amendment of Section 606.1, entitled **General**, to read as follows:

#### 606.1 General.

Commercial kitchen exhaust hoods shall comply with the requirements of the International Mechanical Code and NFPA 96. Where there are conflicting provisions from these standards, the most restrictive shall apply or an approved method shall be obtained from the Building Official and the Fire Code Official.

71. The amendment of the first paragraph of Section 606.2, entitled **Where required**, to read as follows:

#### 606.2 Where required.

A Type I hood shall be installed at or above all commercial 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.

72. The amendment of Section 606.2, entitled **Where required**, by adding an Exception 5, which shall read as follows:

5. Temporary cooking appliances located in tents erected in accordance with Chapter 31.

73. The amendment of Sections 807.5.2.2 and 807.5.2.3, entitled **Artwork in corridors and Artwork in classrooms**, 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 50 percent of the specific wall area to which they are attached.

**Exception:** Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall not be limited in the percent of wall area that can be covered.

**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.

**Exception:** Classrooms protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall not be limited in the percent of wall area that can be covered.

74. The amendment of Sections 807.5.5.2 and 807.5.5.3, entitled **Artwork in Corridors and Artwork in Classrooms**, 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 50 percent of the specific wall area to which they are attached.

**Exception:** Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall not be limited in the percent of wall area that can be covered.

**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.

**Exception:** Classrooms protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall not be limited in the percent of wall area that can be covered.

75. The amendment of Section 901.4.7, entitled **Pump and riser room size**, to be retitled **Pump and riser room size and location**, and to read as follows:

**901.4.7 Pump and riser room size and location.**

All pump and riser rooms shall be provided on the ground floor or other approved level of fire department apparatus access and with a door directly accessible from the exterior of the building in an approved location. The door must be labeled as the "RISER ROOM" by an approved method.

All sprinkler riser rooms shall provide adequate work-around room between fire protection equipment and any interior/exterior walls, obstructions, or other equipment. The minimum spacing around all fire protection equipment, piping, valves, etc. shall be no less than 36 inches from all functional sides. Fire pump and riser rooms shall be provided with a door[doors] and an unobstructed entry/exit passageway large enough to allow removal of the largest piece of equipment. A key box complying with Section 506.1 shall be installed at the fire sprinkler riser and/or pump room. Additional safeguards shall be provided as determined by the Fire Code Official.

76. The amendment of Section 901.5, entitled **Installation acceptance testing**, to read as follows:

**901.5 Installation acceptance testing**

Fire protection and life safety systems and appurtenances thereto shall be subject to acceptance tests as contained in the installation standards and approved by the fire code official. The fire code official shall be notified before any required acceptance testing.

All acceptance tests shall be performed by a qualified representative of the installing company or firm. For any acceptance test for work subcontracted to another company or firm, a qualified representative from the subcontracted company or firm and a qualified representative from the original company or firm that obtained a permit shall be present.

77. The amendment of Section 901.6, entitled **Inspection, testing and maintenance**, to read as follows:

**901.6 Inspection, testing and maintenance**

Fire protection and life safety systems shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Nonrequired fire protection and life safety systems and equipment shall be inspected, tested and maintained or removed in accordance with Section 901.8.

Standpipe testing shall be in accordance with NFPA 25. The following additional requirements shall be applied to the testing that is required to the 5-year inspection:

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.
3. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. Verify that check valves function properly and that there are no closed control valves on the system.
4. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
5. 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.
6. 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.
7. 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 Fire Code Official shall be followed.
8. 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.
9. 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 overnight freezing conditions.
10. Approval is required 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.

78. The amendment of Section 901.6, entitled **Inspection, testing and maintenance**, by adding Sections 901.6.4, 901.6.5, and 901.6.6, which shall read as follows:

**901.6.4 Registration and licensing.**

A company, firm or organization which sells, services, installs, maintains or provides supervision of a fire alarm or extinguishing system shall have a valid Certificate of Registration and current license issued by the State Fire Marshal's Office under the Texas Department of Insurance. Companies, firms or organizations which provide required fire alarm supervision shall operate in accordance with NFPA 72 and shall each be listed as a Central Station in accordance with Underwriters Laboratories.

**901.6.5 Certificates and inspection tags.**

It shall be the owner's or occupant's responsibility to maintain a copy of the fire alarm installation certificate at the fire alarm control panel. It shall also be the owner's or occupant's responsibility to maintain upon the door of the fire alarm control panel an inspection tag of the type provided by a State certified fire alarm company, as approved by the Fire Chief or authorized representative, showing the date the fire alarm system was tested and the results of the test.

It shall also be the owner's or occupant's responsibility to maintain upon the fire sprinkler riser, an inspection tag of the type provided by a State certified fire sprinkler company, showing the date the fire sprinkler system was inspected and the results, thereof. It shall also be the owner's or occupant's responsibility to maintain upon the fire pump, an inspection tag of the type provided by a State certified sprinkler company, showing the date the fire pump was inspected and the results, thereof.

**901.6.6 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.

79. The amendment of Section 901.7, entitled **Systems out of service**, 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 accidental activations, the Fire Code Official shall be notified immediately and, where required by the 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.

80. The amendment of Section 903.1.1, entitled **Alternative protection**, 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.

81. The amendment of Section 903.2 entitled **Where required**, by deleting the Exception and adding the following as a second paragraph thereto:

Existing system alterations exceeding 30% of the original system design shall conform to the most current adoption of all applicable laws, codes, or standards. When the building has undergone more than 50% alteration initiated after October 1, 1998, existing systems shall conform to the most current adoption of all applicable laws, codes, or standards. Timeframes to comply shall be determined by the Fire Code Official.

82. The amendment of Section 903.2 entitled **Where required**, by adding Section 903.2.1.8, entitled **Special amusement building**, which shall read as follows:

**903.2.1.8 Special amusement building.**

Special amusement buildings shall be equipped throughout with an automatic sprinkler system.

**Exception:** An automatic sprinkler system need not be provided when an amusement building shall be in existence less than 30 continuous days and when the construction and use is approved by the Fire Code Official.

83. The amendment of Section 903.2.4, entitled **Group F-1**, to read as follows:

**903.2.4 Group F-1.**

An automatic sprinkler system shall be provided throughout all buildings where the fire area containing a Group F-1 occupancy exceeds 12,000 square feet (1115 m<sup>2</sup>), or where more than two stories in height, or where the combined fire area on all floors, including mezzanines, exceeds 24,000 square feet (2230 m<sup>2</sup>).

84. The amendment of Section 903.2.4.2, entitled **Group F-1 distilled spirits**, to read as follows:

**903.2.4.2 Group F-1 distilled spirits.**

An automatic sprinkler system shall be provided throughout a Group F-1 fire area used for the manufacture of distilled spirits involving more than 120 gallons of distilled spirits (>16% alcohol) in the fire area at any one time.

85. The amendment of Section 903.2.8, entitled **Group R**, to read as follows:

**903.2.8 Group R.**

An automatic sprinkler system shall be installed throughout all buildings with a Group R fire area. One- and two-family dwellings, Group R-3; Group R-4 Condition 1; and townhouses not exceeding two stories in height shall be permitted to comply with Section 903.3.1.3. Buildings up to and including four stories in height, not exceeding 60 feet in height above the lowest level of fire apparatus access, shall be permitted to comply with Section 903.3.1.2. All other buildings with a Group R fire area shall comply with Section 903.3.1.1.

86. The amendment of Section 903.2.8.3, entitled **Group R-4 Condition 2**, to read as follows:

**903.2.8.3 Group R-4 Condition 2.**

An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group R-4 Condition 2 occupancies.

87. The amendment of Section 903.2.9.3, entitled **Group S-1 distilled spirits or wine**, to read as follows:

**903.2.9.3 Group S-1 distilled spirits or wine.**

An automatic sprinkler system shall be provided throughout a Group S-1 fire area used for the bulk storage of distilled spirits or wine involving more than 120 gallons of distilled spirits or wine (>16% alcohol) in the fire area at any one time.

88. The amendment of Section 903, entitled **AUTOMATIC SPRINKLER SYSTEMS**, by adding Section 903.2.9.5, entitled **Self-service storage facility**, which shall read as follows:

**903.2.9.5 Self-service storage facility.**

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

**Exception:** One-story self-service storage facilities that have no interior corridors, with at least a one-hour fire barrier separation wall installed between every storage compartment.



89. The amendment of Section 903.2.11.3, entitled **Buildings more than 55 feet in height**, by deleting its Exception and amending the section to read as follows:

**903.2.11.3 Buildings more than 55 feet in height.**

An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1510 of the International Building Code, that is located 55 feet or more above the lowest level of fire department vehicle access.

90. The amendment of Section 903, entitled **AUTOMATIC SPRINKLER SYSTEMS**, by adding Section 903.2.11.7, entitled **High-piled combustible storage**, which shall read as follows:

**903.2.11.7 High-piled combustible storage.**

Any building exceeding 12,000 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 capable of high-piled storage and Chapter 32 of the International Fire Code shall be consulted if the installation of an automatic sprinkler system is required.

91. The amendment of Section 903.3.1.1, entitled **NFPA 13 sprinkler systems**, to read as follows:

**903.3.1.1 NFPA 13 sprinkler systems.**

Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13, with the exclusion of Section 8.15.8 of that standard, and except as provided in Sections 903.3.1.1.1 and 903.3.1.1.2.

92. The amendment of Section 903.3.1.1.1, entitled **Exempt locations**, to read as follows:

**903.1.1.1 Exempt locations.**

Where approved by the Fire Code Official, sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire alarm system in accordance with Section 907.2. Sprinklers shall not be omitted from any room or area merely because of the following circumstances: the potential water damage from sprinkler activation; the fire-resistance-rated construction of the room or area; or that a room or area contains electrical equipment.

1. Any room where the application of water constitutes a serious life or fire hazard.
2. Any room or area where sprinklers are considered undesirable because of the nature of the contents within that room or area.
3. Generator or 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 two hours.
4. Machine rooms, elevator machinery spaces, control rooms, control spaces, and elevator hoistways.

Buildings and portions thereof shall be considered to be covered by an automatic sprinkler system throughout and in compliance with this code if they contain areas that are not required to have sprinkler coverage by this code, or any other locations as approved by the Fire Code Official.

93. The amendment of Section 903.3.1.2, entitled **NFPA 13R sprinkler systems**, to read as follows:

**903.3.1.2 NFPA 13R sprinkler systems.**

Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R where the Group R occupancy meets all of the following conditions:

1. Four stories or less above grade plane.
2. The floor level of the highest story is 35 feet (10668 mm) or less above the lowest level of fire department vehicle access.
3. The floor level of the lowest story is 35 feet (10668 mm) or less below the lowest level of fire department vehicle access.

The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 of the International Building Code shall be measured from grade plane.

94. The amendment of Section 903.3.1.2.1, entitled **Balconies and decks**, to read as follows:

**903.3.1.2.1 Balconies and decks.**

Dry or antifreeze sidewall sprinkler protection shall be provided for exterior balconies, decks, and ground floor

patios of buildings protected by a system complying with Section 903.3.1.2, provided there is a roof or deck above.

Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch to 6 inches below the structural members and a maximum distance of 14 inches below the deck above.

95. The amendment of Section 903.3.1.2.2, entitled **Corridors and balconies in the means of egress**, retitled **Corridors and balconies**, and to read as follows:

**903.3.1.2.2 Corridors and balconies.**

Sprinkler protection shall be provided in all corridors and for all balconies.

96. The amendment of Section 903.3.1.2.3, entitled **Attics**, to read as follows:

**903.3.1.2.3 Attics.** Attic protection shall be provided as follows:

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
3. Where located in a building of Type III, Type IV, or Type V construction designed in accordance with Section 510.2 or 510.4 of the International Building Code, attics not required by Item 1 to have sprinklers shall comply with one of the following if the roof assembly is located more than 55 feet above the lowest level of required fire department vehicle access:
  - 3.1 Provide automatic sprinkler system protection.
  - 3.2 Construct the attic using noncombustible materials.

- 3.3 Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.
- 3.4 Fill the attic with noncombustible insulation as much as allowable by other applicable governing codes and standards.

97. The amendment of Section 903, entitled **AUTOMATIC SPRINKLER SYSTEMS**, by adding Section 903.3.1.4, entitled **Multipurpose Sprinkler Systems**, to read as follows:

**903.3.1.4 Multipurpose Sprinkler Systems.**

Can be used for one- and two-family dwellings where one structure is located on a dedicated lot. The structures must also have a minimum of 10' horizontal separation between roof line edges.

98. The amendment of Section 903, entitled **AUTOMATIC SPRINKLER SYSTEMS**, by adding Section 903.3.1.5, entitled **Freeze protection**, et seq., which shall read as follows:

**903.3.1.5 Freeze protection.**

Freeze protection for automatic sprinkler systems shall be installed in accordance with the requirements of the applicable referenced NFPA standard(s), and this section.

**903.3.1.5.1 Freeze protection in attics.**

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

**Exceptions:** Wet-pipe sprinkler systems shall be allowed to protect non-ventilated attic spaces where all of the following apply:

- 1. The attic sprinklers are supplied by a separate floor control valve assembly to allow the draining of this protected space without compromising other sprinklers installed in the building, and
- 2. A permanent, reliable source of heat is provided through the protected space, and
- 3. The attic space is part of the building's thermal envelope, such that complete insulation coverage is provided at the roof deck.

**903.3.1.5.2 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. This system must be supervised by the building's fire alarm system and shall electronically report a "supervisory" condition upon activation or a power failure at the fire alarm control unit.

99. The amendment of Section 903.3.5, entitled **Water supplies**, by adding a second paragraph which shall read as follows:

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective NFPA 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.

100. The amendment of Section 903.3.5, entitled **Water supplies**, by adding Section 903.3.5.3, entitled **Aboveground water supply vaults/housings**, which shall read as follows:

**903.3.5.3 Aboveground water supply vaults/housings.**

All new service mains for supplying water to fire protection systems that continue in aboveground vaults or housings shall be protected against freezing and impact damage. All new vaults or housings with aboveground water supplies, including backflow prevention assemblies, shall be provided with a reliable heat source or other method to protect the piping/assemblies from freezing. All new vaults shall be protected from vehicle impact by means in accordance with Section 312.

101. The amendment of Section 903.3.7, entitled **Fire department connections**, by adding Section 903.3.7.1, entitled **Additional connections**, which shall read as follows:

**903.3.7.1 Additional connections.**

If required fire flow requirements exceed the initial 1500 G.P.M. for any system, building, or portion thereof, an additional fire department connection complying with this section shall be provided for each additional 1500 G.P.M. or fraction thereof. If a single additional connection is required by this section and if provided in a manifold, the supply piping from the manifold to the sprinkler system shall be a minimum of 6 inches. If two additional connections are required by this section and if provided in a manifold, the supply piping from the manifold to the sprinkler system shall be a minimum of 8 inches. For three or more additional connections, and for any arrangement of manifolded fire department

connections, the supply piping to the system shall be capable of supplying the aggregate volume of incoming water.

102. The amendment of Section 903.3.8.5, entitled **Calculations**, by adding a second paragraph thereto which shall read as follows:

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

103. The amendment of Section 903.4, entitled **Sprinkler system supervision and alarms**, by adding a second paragraph after the Exceptions which shall read as follows:

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.

104. The amendment of Section 903.4.2, entitled **Alarms**, to read as follows:

**903.4.2 Alarms.**

Each automatic sprinkler system shall have a single, approved device to be installed on the exterior of the building on the address side of the building, or in an alternative location as approved by the Fire Code Official; additional devices may be required at the discretion of the Fire Code Official. This device shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating.

Installations intended to comply with this section shall have a single audible/visual notification appliance to be located in an approved, normally occupied location, within each occupancy group of a building. Incidental uses shall not require an additional notification device. Additional notification devices not mentioned in this section shall not be allowed.

105. The amendment of Section 903.4.2, entitled **Alarms**, by adding Section 903.4.2.1, entitled **Waterflow alarm initiation**, which shall read as follows:

**903.4.2.1 Waterflow alarm initiation.**

Any waterflow-type of detector device required by this code on all sprinkler or standpipe systems shall cause an alarm upon the detection of waterflow between 45 and 90 seconds. All alarms caused by the initiation of waterflow shall be programmed to be non-silenceable and shall continue to report as such until the flow of water has been disrupted.

106. The amendment of Section 903.4.3, entitled **Floor control valves**, to read as follows:

**903.4.3 Floor control valves.**

When a standpipe system is installed or required to be installed in a building, a separate indicating floor control valve shall be installed for each connection to an express main or supply feed to each floor throughout the building. A separate control valve shall be provided for each floor that is served by a standpipe system or protected by an automatic sprinkler system and shall be supervised by the building's fire alarm system. Each floor control valve shall also be accompanied by a waterflow switch which shall comply with Section 903.4.2.1.

107. The amendment of Section 903, entitled **AUTOMATIC SPRINKLER SYSTEMS**, by adding Section 903.7, entitled **Spray booths and rooms**, which shall read as follows:

**903.7 Spray booths and rooms.**

New and existing spray booths and spray rooms shall be protected by an approved automatic fire extinguishing system in accordance with Section 2404.4.

108. The amendment of Section 904.4.2.1, entitled **Audible and visible signals**, to read as follows:

**904.4.2.1 Audible and visible signals.**

All systems installed in accordance with Section 904 that are not otherwise required to be interconnected to the building's fire alarm system shall be provided with a single approved audible (local) notification appliance or method to announce the activation of such system. The audibility of all required notification appliances shall be verified.

109. The amendment of Section 905.2, entitled **Installation standard**, to read as follows:

**905.2 Installation standard.**

Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm and shall be designed with the following hydraulic factors: Static – 175psi, Residual – 174psi, Flow – 1500gpm. Fire department connections for standpipe systems shall be in accordance with Section 912.

110. The amendment of section 905.3.2, entitled **Group A**, by deleting Exceptions 1 and 2.

111. The amendment of Section 905, entitled **STANDPIPE SYSTEMS**, by adding Section 905.3.9, entitled **Buildings exceeding 10,000 sq. ft.**, which shall 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 of travel (vertically or horizontally) from the nearest point of fire department vehicle access, a Class I automatic wet or manual wet standpipe 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.
112. The amendment of Section 905.4, entitled **Location of class I standpipe hose connections**, by amending Item 5 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 to serve the roof or the highest landing of an interior exit stairwell that has access to the roof, provided in accordance with Section 1011.12.

113. The amendment of Section 905.8, entitled **Dry standpipes**, to read as follows:

**905.8 Dry standpipes.**

Dry standpipes shall not be installed.

**Exception:** Where subject to freezing and in accordance with NFPA 14. Additionally, manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low supervisory alarm.

114. The amendment of Section 906.1, entitled **Where required**, by deleting Exception 3 in its entirety.
115. The amendment of Section 907.1.2, entitled **Fire alarm shop drawings**, by adding the following subsections, which shall read as follows:

**907.1.2.1**

The type, location, power supply detail, and interconnectivity of single- or multiple- station smoke alarms.



**907.1.2.2**

The type, location, power supply detail, and interconnectivity of single- or multiple- station carbon monoxide alarms.

116. The amendment of Section 907.1.3, entitled **Equipment**, by adding the following subsections, which shall read as follows:

**907.1.3.1 Fire alarm control panel.**

The fire alarm control panel shall be installed in an approved location adjacent to the main entrance to the building unless otherwise approved by the Fire Code Official. In such instances, an annunciator shall be installed at the main entrance.

**907.1.3.2 Key/Codes.**

Fire alarm control panel functions such as "silence" and "reset" shall be operable without the use of a key or code. The panel cover may be locked, but a key to unlock it shall be located in a key box, in accordance with Section 506.

117. The amendment of Section 907.1, entitled **General**, by adding Section 907.1.4, entitled **Design standards**, which shall read as follows:

**907.1.4 Design standards.**

Fire alarm systems, emergency voice alarm communication systems and their appurtenances shall be designed, installed and maintained in accordance with NFPA 72.

All newly installed systems, including those which are installed to replace existing systems and those that are installed to comply with Section 903.4 through 903.4.2, shall be of the addressable type. Fire alarm systems serving more than seventy-five (75) detector-type initiating devices or more than 200 total devices, shall be analog intelligent addressable fire detection systems.

**Exception:** Existing systems need not comply unless the total system alterations exceed 30% of the original system design or when the building has undergone more than 50% alteration initiated after October 1<sup>st</sup>, 1998. Timeframes to comply shall be determined by the Fire Code Official.

118. The amendment of Section 907.2.1, entitled **Group A**, 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 where the occupant load

is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

**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.

119. The amendment of Section 907.2.3, entitled **Group E**, to read as follows:

**907.2.3 Group E.**

A manual fire alarm system that initiates that 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 fire alarm system shall be installed in Group E day care occupancies.

Unless separated by a minimum of 100 ft. open space, all buildings, whether portable or permanent buildings, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

**Exceptions:**

1. Portable/Temporary buildings in Group E Educational occupancies with manual fire alarm systems are not required to be connected to the alarm system in the main building.
2. Residential in-home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2½ or less years of age, see Section 907.2.6.)

120. The amendment of Section 907.2.7, entitled **Group M**, by deleting Section 907.2.7.1, entitled **Occupant notification**, in its entirety.

121. The amendment of section 907.2.10, entitled **Group S**, to read as follows:

**907.2.10 Group S.**

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public- and self-storage occupancies for interior corridors and interior common areas. Visible notification appliances are not required within storage units.

**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.

122. The amendment of Section 907.2.13, entitled **High-rise buildings**, Exception 3, to read as follows:

3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code, when used for open air seating; however, this exception does not apply to accessory uses, including but not limited to, sky boxes, restaurants and similarly enclosed areas.

123. The amendment of Section 907.4.2, entitled **Manual fire alarm boxes**, to read as follows:

**907.4.2 Manual fire alarm boxes**

Where a manual fire alarm box 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 907.4.2.6. Manual alarm actuating devices shall be an approved double-action type.

124. The amendment of Section 907.5.2.3, entitled **Visible alarms**, by amending Exception 1 to read as follows:

1. The Fire Code Official shall determine if visible alarm notification appliances are required in alterations.

125. The amendment of Section 907.6.1, entitled **Wiring**, by adding Section 907.6.1.1, entitled **Installation**, which shall read as follows:

**907.6.1.1 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. Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A, Style 6 circuits and shall have a minimum of six horizontal feet separation and a minimum of one-foot vertical separation 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.

126. The amendment of Section 907.6.3, entitled **Initiating device identification**, by deleting all Exceptions in their entirety.

127. The amendment of Section 907.6.6, entitled **Monitoring**, by adding the following language as a second sentence to the section and before the exceptions:

See Section 907.6.3 for the required information transmitted to the supervising station.

128. The amendment of Section 907.6.6., entitled **Monitoring**, by adding Section 907.6.6.4, entitled **Local alarm system**, which shall read as follows:

**907.6.6.4 Local alarm system.**

When an automatic fire alarm system is not monitored by an approved central station alarm company, an external weatherproof, audible/visual alarm sounding device shall be provided in an approved location with an approved sign, with a minimum of four-inch (4") letters, reading "WHEN ALARM SOUNDS, CALL FIRE DEPARTMENT" adjacent to the alarm-sounding device.

An approved permanent sign reading "LOCAL ALARM ONLY – CALL 9-1-1" shall be provided on or adjacent to the fire alarm control panel and all manual fire alarm pull stations.

129. The amendment of Section 910.2, entitled **Where required**, by amending Exceptions 2 and 3 to read as follows:

2. Only manual smoke and heat removal shall be approved 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 approved 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.

130. The amendment of Section 910.2, entitled **Where required**, by adding Section 910.2.3, entitled **Group H**, which shall 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<sup>2</sup>) 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.

131. The amendment of Section 910.3.4, entitled **Vent operations**, to read as follows:

**910.3.4 Vent operations.**

Smoke and heat vents shall be capable of being operated by approved automatic and manual means, unless automatic operation is not allowed by Section 910.2. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.4.1 and 910.3.4.2.

132. The amendment of Section 910.3.4, entitled **Vent operations**, by adding Section 910.3.4.1, entitled **Sprinklered buildings**, and Section 910.3.4.2, entitled **Non-sprinklered buildings**, which shall 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.

**910.3.4.2 Non-sprinklered 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.

133. The amendment of Section 910.4.3.1, entitled **Makeup air**, to read as follows:

**910.4.3.1 Makeup air.**

Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m<sup>2</sup> per 0.4719 m<sup>3</sup>/s) of smoke exhaust.

134. The amendment of Section 910.4.4, entitled **Activation**, to read as follows:

**910.4.4 Activation.**

The mechanical smoke removal system shall be activated only 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.

135. The amendment of Section 912.2, entitled **Location**, to read as follows:

**912.2 Location.**

The location of all fire department connections shall be approved by the Fire Code Official. Fire department connections shall be located so that fire apparatus staging and hose connected to the fire department connection will not obstruct access to the building for other fire apparatus. Fire department connection location shall account for obstructions from driveways, buildings, security barriers, fences, and landscaping.

Each automatic sprinkler system shall be equipped with at least one fire department connection. If more than one building is served by a common underground fire main, each building shall have a separate fire department connection. If more than one fire department connection is provided for a common underground fire main or if more than one connection is installed for a building or buildings, the failure of one connection shall not inhibit the usage or operation of other connections, nor shall other buildings be affected by the failure of any single connection.

136. The amendment of Section 912.2, entitled **Location**, by adding Section 912.2.3, entitled **Hydrant distance**, which shall 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.

137. The amendment of Section 912.2, entitled **Location**, by adding Section 912.2.4, entitled **High-rise buildings**, which shall read as follows:

**912.2.4 High-rise buildings.**

All fire department connections for any high-rise building shall be installed within twenty-five feet (25') of an approved street or Fire Lane.

138. The amendment of Section 912.3, entitled **Fire hose threads**, to read as follows:

**912.3 Fire hose threads.**

All fire department connections within the jurisdiction shall be a 4-inch Storz-type connection. This connection shall be constructed of high-strength, lightweight, corrosion-resistant aluminum alloy capable of being securely attached to the outlets/piping and shall conform to applicable industry standards in regards to design and installation. The hose sealing surface shall consist of a machined metal seat to eliminate rubber gaskets, coated to protect against long term exposure to the environment. The Storz connection shall connect to the pipe outlet using National Standard Thread. The connection shall be angled downward at a 30° angle. An approved locking device shall be installed on each fire department connection.

139. The amendment of Section 913.2.1, entitled **Protection of fire pump rooms**, to read as follows:

**913.2.1 Protection of fire pump rooms**

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

All fire pump rooms shall provide adequate work-around room between fire protection equipment and any interior/exterior walls, obstructions, or other equipment. The minimum spacing around all fire protection equipment, piping, valves, etc. shall be no less than 36 inches from all working sides. The fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided. Fire pump and riser rooms shall be provided with a door/doors and an unobstructed passageway large enough to allow removal of the largest piece of equipment. A key box complying with Section 506.1 shall be installed at the fire pump room. Additional safeguards shall be provided as determined by the Fire Code Official.

**Exception:** When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the Fire Code Official.

140. The amendment of Section 913.4, entitled **Valve supervision**, to read as follows:

**913.4 Valve supervision.**

Where provided, fire pump suction, discharge, and bypass valves, and isolation valves on the backflow prevention device or assembly shall be supervised in accordance with Section 903.4 – as amended.

141. The amendment of Section 914.3.1.2, entitled **Water supply to required fire pumps**, to read as follows:

**914.3.1.2 Water supply to required fire pumps.**

In buildings that are more than 120 feet 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 fire pumps to operate.

**Exception:** Two connections in the same main shall be permitted provided that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.

142. The amendment of Section 915.1.1, entitled **Where required**, by adding the following text to the end of the section:

Carbon monoxide detection shall be installed for commercial kitchen hoods complying with *NFPA 96*, in accordance with Section 915.2.4.

143. The amendment of Section 915.2.3, entitled **Group E occupancies**, to read as follows:

**915.2.3 Group E occupancies.**

Carbon monoxide detection shall be installed in classrooms and other required locations, as determined by the Fire Code Official, in Group E occupancies and shall be tied into the building's fire alarm system in accordance with *NFPA 72*. Carbon monoxide alarms shall be automatically transmitted to an on-site location that is staffed by school personnel and



shall annunciate at the fire alarm control unit as a non-silenceable, latching alarm with a distinct audible and visual alarm.

144. The amendment of Section 915.4, entitled **Carbon monoxide alarms**, by adding Section 915.4.5, entitled **Commercial kitchen hoods**, which shall read as follows:

**915.4.5 Commercial kitchen hoods.**

Carbon monoxide detection shall be installed in commercial kitchens with new or remodeled hoods complying with Section 606.2 and NFPA 96. Carbon monoxide detectors shall be installed in an approved location in the kitchen relatively near the fuel-fired gas appliances and in an approved location in the dining area, if applicable.

Carbon monoxide detectors shall be interconnected to the fire alarm system and shall report distinctively as such, in accordance with NFPA 72. Standalone detectors shall be allowed if the building is not equipped with a fire alarm system; in this instance, local audible notification from the detector(s) is required.

145. The amendment of Section 1009.1, entitled **Accessible means of egress required**, by adding Exception 3, which shall read as follows:

3. Projects registered with the Architectural Barriers Division of the Texas Department of Licensing and Regulation shall be deemed to comply with the requirements of Section 1009.

146. The amendment of Section 1009.8, entitled **Two-way communication**, by adding Exception 7, which shall read as follows:

7. Buildings regulated under State Law and built-in accordance with State registered plans, including variances or waivers granted by the State, shall be deemed to comply with the requirements of Section 1009 and Chapter 11.

147. The amendment of Section 1010.2.5, entitled **Bolt locks**, by amending Exceptions 3 and 4 to read as follows:

3. Where a pair of doors serve an occupant load of less than 50 persons in a Group B, F, M, or S occupancy, manually operated edge or surface mounted bolts are permitted on the inactive leaf. The inactive leaf shall not contain door opening hardware.
4. Where a pair of doors serve a Group A, B, F, M, or S occupancy, manually operated edge or surface mounted bolts are permitted on the inactive leaf, provided such inactive door leaf is not needed to

meet egress capacity requirements. The inactive leaf shall not contain door opening hardware.

148. The amendment of Section 1010.2.7, entitled **Stairway doors**, by adding Exception 6, which shall read as follows:

6. In stairways serving more than four stories, doors can be locked from the stairway side, if the lock is connected to the fire alarm system and the key to the door is provided in a Knox Box. Activation of the fire alarm system must release the locks on all stairway doors.

149. The amendment of Section 1017.3, entitled **Measurement**, by adding Exceptions 3 and 4, which shall read as follows:

3. In other than occupancy Groups H and I, the exit access travel distance to a maximum of 50 percent of the exits is to be measured from the most remote point within a building to an exit using unenclosed exit access stairways or ramps when connecting to a maximum of two stories. The two connected stories shall be provided with at least two means of egress. Such interconnected stories shall not be open to other stories.

4. In other than occupancy Groups H and I, the exit access travel distance to a maximum of 50 percent of the exits is to be measured from the most remote point within a building to an exit using unenclosed exit access stairways or ramps in the first and second stories above grade plane in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The first and second stories above grade plane shall be provided with at least two means of egress. Such interconnected stories shall not be open to other stories.

150. The amendment of Section 1017, entitled **EXIT ACCESS TRAVEL DISTANCE**, by adding Section 1017.4, entitled **Roof Vent Increase**, which shall read as follows:

**1017.4 Roof Vent Increase.**

In buildings that are one story in height, equipped with automatic heat and smoke roof vents complying with Section 910 and equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the maximum exit access travel distance shall be 400 feet for Group F-1 or S-1 occupancies.

151. The amendment of Section 1020.2, entitled **Construction**, by adding Exception 6, which shall read as follows:

6. In unsprinklered 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 must activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors must be connected to an approved automatic fire alarm system where such system is provided.

152. The amendment of Section 1030.1.1.1, entitled **Spaces under grandstands and bleachers**, by adding Exception 4, which shall read as follows:

4. Where alternate means or methods are submitted to and approved by the Building and Fire Officials.

153. The amendment of Section 1032.2, entitled **Reliability**, to read as follows:

**1032.2 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.

154. The amendment of Section 1103.3, entitled **Existing elevators**, to read as follows:

**1103.3 Existing elevators.**

In other than Group R-3, existing elevators, escalators and moving walks shall comply with the requirements of Section 1103.3.1 and 1103.3.2. Emergency signage as required by Section 604.4 shall be provided.

155. The amendment of Section 1103.5, entitled **Sprinkler systems**, by adding Section 1103.5.6, entitled **Spray booths and Rooms**, which shall read as follows:

**1103.5.6 Spray Booths and Rooms.**

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

156. The amendment of Section 1103.7, entitled **Fire alarm systems**, by deleting the Exception and adding the following second paragraph to the section:

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 October 1, 1998, exceeds 50% of the building or fire alarm system, the fire alarm system must comply. Timeframes to comply shall be determined by the Fire Code Official.

157. The amendment of Section 1103.7.6, entitled **Group R-2**, to read as follows; provided, however, that Exceptions 1 through 4.2 therein shall remain unchanged:

**1103.7.6 Group R-2.**

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing Group R-2 occupancies three or more stories in height or with more than 16 dwelling units, where the total building remodel or renovation initiated after November 1, 2005, exceeds 30% of the building.

When cumulative property complex remodel or renovation exceeds 50%, all fire alarm systems for the property complex must comply within a timeframe determined by the Fire Code Official.

158. The amendment of Section 1203, entitled **Emergency and standby power systems**, by amending Section 1203.1.3, entitled **Installation**, to read as follows:

**1203.1.3 Installation.**

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

159. The amendment of Section 1203.1.5, entitled **Load Duration**, to read as follows:

**1203.1.5 Load Duration.**

Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 2 hours without being refueled or recharged, unless specified otherwise in this code.

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

160. The amendment of Section 1203.1, entitled **General**, by adding Section 1203.1.10, entitled **Critical Operations Power Systems (COPS)**, which shall 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.

161. The amendment of Section 1203.2, entitled **Where required**, 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.

162. The amendment of Section 1203.2.4, entitled **Emergency Voice/Alarm Communications Systems.**, 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 907.2.20 and 914.2  
Group A Occupancies, Sections 907.2.1 and 907.5.2.2  
Special Amusement Areas, Section 907.2.12 and 914.7  
High-rise Buildings, Section 907.2.13 and 914.3  
Atriums, Section 907.2.14 and 914.4  
Deep Underground Buildings, Section 907.2.19 and 914.5

163. The amendment of Section 1203.2.15, entitled **Means of Egress Illumination.**, to read as follows:

**1203.2.15 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)

164. The amendment of Section 1203.2.16, entitled **Membrane Structures.**, to read as follows:

**1203.2.16 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.

165. The amendment of Section 1203.2.18, entitled **Smoke Control Systems.**, to read as follows:

**1203.2.18 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  
Special Amusement Areas (as applicable to Group A's),  
International Building Code, Section 411  
Smoke Protected Seating, Section 1030.6.2

166. The amendment of Section 1203.2, entitled **Where required**, by adding Sections 1203.2.20 through 1203.2.26, which shall read as follows:

**1203.2.20 Covered and Open Mall Buildings.**

Emergency power shall be provided in accordance with Section 907.2.20 and 914.2.

**1203.2.21 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.

**1203.2.22 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 909.20.7.2.

**1203.2.23 Elevator Pressurization.**

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

**1203.2.24 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.

**1203.2.25 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 504.11, Item 7.

**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.)

167. The amendment of Section 2006.8, entitled **Loading and unloading**, by adding Section 2006.8.1, entitled **Truck-to-truck Operations at Arlington Municipal Airport**, which shall read as follows:

**2006.8.1 Truck-to-truck Operations at Arlington Municipal Airport.**

Truck-to-truck fueling operations shall be conducted by approved fixed base operators and self-fueling operators in accordance with Section 5706.6 and the following:

1. The location of truck-to-truck refueling shall be approved by the Fire Department and the Arlington Municipal Airport Manager.
  2. All fueling operations shall be located at least two hundred feet (200') from an occupied aircraft, one hundred feet (100') from an unoccupied aircraft, one hundred feet (100') from a building and one hundred feet (100') from any source of flame or ignition.
  3. A minimum of two (2) trained attendants shall be present during all fueling operations.
  4. Both vehicles shall be properly bonded and grounded.
  5. Provision for control of accidental spills shall be provided and shall be approved by the Fire Department.
  6. An annual permit is required per Section 105.6, and the permit may be revoked if the above is not complied with or if a hazardous condition is created by the truck-to-truck fueling operation.
168. The amendment of Section 2401, entitled **General**, by deleting Section 2401.2, entitled **Non-applicability**, in its entirety.
169. The amendment of Section 2401, entitled **General**, by adding Section 2401.4, entitled **Seizure of Spray Finishing Equipment**, and Section 2401.5, entitled **Disposition of Seized Spray Finishing Equipment**, which shall read as follows:

**2401.4 Seizure of Spray Finishing Equipment.**

When it is found or discovered that spray finishing operations are being conducted outside of, or without an approved spraying room or booth equipped with an approved fire extinguishing system, the Fire Chief, Fire Code Official, or authorized representative, shall be authorized to obtain a warrant to seize, take or remove or cause to be removed at the expense of the owner any spray gun nozzles, compressors, hoses, attachments, property or any other tool, device, instrument or any item(s) used in the spray finishing process. Seizure of equipment will be made in accordance with applicable laws.

Mere possession of spray finishing equipment outside of or without an approved spraying room or booth with an approved fire extinguishing system may not be grounds for seizure. However, if it can be determined through observation and investigation that such equipment has been used in a spray finishing operation, the equipment can be seized as stated above. This determination should be based on signs that a hazardous condition exists by means of fumes or vapors present in the vicinity and/or evidence that finishing has occurred by observance of wet paint and/or over spray.

**2401.5 Disposition of Seized Spray Finishing Equipment.**

Property seized under authority granted by Section 1501.4 shall be held until all legal proceedings in the matter have been resolved. If a criminal case was filed, the property shall be held until a final conviction has been entered in the case. The Fire Department shall dispose of the property as required by applicable law and procedures of the City of Arlington and the State of Texas. Disposition could include, but is not limited to, auctioning off the equipment or releasing the equipment back to the owner.

170. The amendment of Section 2404.4, entitled **Fire Protection**, to read as follows:

**2404.4 Fire Protection.**

New and existing spray booths and spraying rooms shall be protected by approved automatic fire-extinguishing systems. Such systems shall be extended to protect exhaust plenums, exhaust ducts and both sides of dry filters when such filters are used. For installation of automatic sprinklers in ducts, see the Mechanical Code.

171. The amendment of Section 2404.9, entitled **Limited Spraying Spaces**, to read as follows:

**2404.9 Limited Spraying Spaces.**

All rooms or areas used for limited spraying shall be protected by approved automatic sprinkler protection, designed in accordance with NFPA 13 for an Extra Hazard Occupancy, and NFPA 33.

172. The amendment of Section 3103.3, entitled **Outdoor assembly event**, by deleting Section 3103.3.1, entitled **Special amusement area**, in its entirety.

173. The amendment of Section 3107.17, entitled **Standby Personnel**, to read as follows:

**3107.17 Standby Personnel.**

When, in the opinion of the Fire Code Official, it is essential for public safety, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity; the owner, agent or lessee shall employ approved



standby personnel to remain on duty during the times such places are open to the public, or when such activity is being conducted.

The Fire Code Official shall determine the number of standby personnel required.

174. The amendment of Table 3206.2, entitled **General Fire Protection and Life Safety Requirements**, by amending footnote h. to read as follows:

h. 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  $50 (m \cdot s)^{1/2}$  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.

175. The amendment of Table 3206.2, entitled **General Fire Protection and Life Safety Requirements**, by adding footnote j. to the row across from Commodity Class "High Hazard" and Size of High Piled Storage Area "Greater than 300,000". The legend at the bottom of Table 3206.2 shall be amended by adding the following:

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.

176. The amendment of Section 3311, entitled **ACCESS FOR FIRE FIGHTING**, by adding a second paragraph to Section 3311.1, entitled **Required access**, which shall 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 the completion of the foundation of any structure. Fire apparatus access shall comply with Section 503.

177. The amendment of Section 5003.3.1.4, entitled **Responsibility for cleanup**, to read as follows:

**5003.3.1.4 Responsibility for cleanup.**

A person, firm or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the City of Arlington. When deemed necessary by the Fire Chief or authorized representative, cleanup may be initiated by the Fire Department or by an authorized

individual or firm. Costs associated with such cleanup and disposal shall be borne by the owner, operator or other person responsible for the unauthorized discharge, in accordance with the provisions of the "Nuisance" Chapter of the Code of the City of Arlington.

178. The amendment of Section 5003.3.1, entitled **Unauthorized discharges.**, by adding Section 5003.3.1.5, entitled **Abandoned Hazardous Materials**, which shall read as follows:

**5003.3.1.5 Abandoned Hazardous Materials.**

It shall be the duty of the owner, occupant or person otherwise having supervision or control of any lot, tract or parcel of land, or portion thereof, or any building or portion thereof, whether occupied or unoccupied, improved or unimproved, on or in which abandoned hazardous materials are identified to secure and/or dispose of such hazardous materials in a manner approved by the Fire Chief or authorized representative at no cost to the City of Arlington.

When deemed necessary by the Fire Chief or authorized representative, such remedial action may be initiated by the Fire Department. Abatement and reimbursement for costs shall be in accordance with the provisions of the "Nuisance" Chapter of the Code of the City of Arlington.

"Abandoned hazardous materials" shall include but not be limited to clandestine drug lab chemicals or other chemicals that have been deserted or discarded by their original owner or user, or chemicals for which the owner or user cannot be identified and located within a reasonable time under the circumstances existing at the time the chemicals are discovered or identified.

179. The amendment of Section 5601.1, entitled **Scope**, by deleting Exception 6 in its entirety.

180. The amendment of Section 5601.1.3, entitled **Fireworks**, to read as follows:

**5601.1.3 Fireworks.**

The possession, manufacture, storage, sale, handling and use of fireworks is expressly prohibited.

**Exceptions:**

1. Only when approved for fireworks displays, storage and handling of fireworks as provided in Section 3305 and 3308.
2. The use of fireworks for approved display as permitted in Section 5608.

181. The amendment of Section 5601.2.2, entitled **Sale and Retail Display**, to read as follows:

**5601.2.2 Sale and Retail Display.**

The retail display and sale of fireworks is expressly prohibited.

182. The amendment of Section 5608.6, entitled **Installation of Mortars**, by adding Section 5608.6.1, which shall read as follows:

**5608.6.1 Electric Ignition.**

Electric ignition shall be used for mortars of three inches (3") or greater in diameter. Upon approval by the Fire Chief or authorized representative, manual ignition may be used. Electrical firing units shall be in accordance with Section 5608.12.

183. The amendment of Section 5608, entitled **FIREWORKS DISPLAY**, by adding Section 5608.11, entitled **Electrical Fire Units**, et seq., which shall read as follows:

**5608.11 Electrical Fire Units.**

**5608.11.1 General.**

Electrical firing units shall be in accordance with Section 3308.12.

**5608.11.2 Wiring.**

Electrical wiring associated with an electrical firing unit shall be prevented from contacting metal objects in contact with the ground.

**5608.11.3 Power Supply.**

AC-powered electrical firing units shall be isolated from the power source using an isolation transformer.

**5608.11.4 Security.**

Electrical firing units shall require operation of a key- operated switch or other similar device to prevent unauthorized operation.

**Exception:** Hand-held electrical firing units connected to fireworks only during a display.

**5608.11.5 Manually Activated Firing Units.**

Manually activated electrical firing units shall require two or more distinct actions to apply electric current to an electric match.

**5608.11.6 Automatic-Firing Units.**

Automatic-sequencing-type electrical firing units shall include a momentary contact switch which must be held to cause application of

current to an electric match and which will immediately disconnect current to all electric matches upon release.

**5608.11.7 Testing of Firing Circuits.**

The pyrotechnic operator shall ensure that personnel are kept at a safe distance from fireworks which are connected to electrical firing units during testing. Electrical firing units with integral test circuits shall be designed to limit the maximum current output during a test to 0.05 ampere or to 20 percent of the no-fire current of electric matches, whichever is less.

Multi-testers shall not be used for testing unless the maximum current output has been measured and determined not to exceed the current output limits for integral test circuits.

184. The amendment of Chapter 56, entitled **EXPLOSIVES AND FIREWORKS**, by adding Section 5610, entitled **PYROTECHNIC SPECIAL EFFECTS MATERIAL**, which shall read as follows:

**SECTION 5610  
PYROTECHNIC SPECIAL EFFECTS MATERIAL**

**5610.1 General.**

Temporary storage, use and handling of pyrotechnic special effects material used in motion picture, television, theatrical and group entertainment productions shall be in accordance with Section 3310.

**5610.2 Classification of Materials.**

Pyrotechnic special effects material shall be classified in accordance with DOT regulations and procedures.

**5610.3 Construction of Magazines.**

Magazines used for the storage of pyrotechnic special effects material shall be constructed in accordance with Section 5604.6.

**5610.4 Storage.**

**5610.4.1 Fireworks 1.4G.**

Fireworks 1.4G (Class C common fireworks) shall be stored in accordance with the requirements for low explosives.

**5610.4.2 Other pyrotechnic special effects material.**

**5610.4.2.1 General.**

Storage of pyrotechnic special effects material other than fireworks 1.4G (Class C Common fireworks) shall be in accordance with the

requirements of Sections 5604 and 5610.4.2. Containers of explosive materials shall be closed when stored.

#### **5610.4.2.2 Storage Magazines.**

##### **5610.4.2.2.1 Within Buildings.**

Explosives stored within a building shall not exceed 50 pounds (22.7 kg). Low explosives stored within a building shall be stored in a Type 2 or 4 magazine. High explosives shall be stored in a Type 2 magazine.

##### **5610.4.2.2.2 Outside of Buildings.**

Pyrotechnic special effects material which is to be stored outdoors shall be stored in a Type 2 or 4 magazine. Pyrotechnic special effects material which is classified as a high explosive, including detonating cord and detonators that will mass detonate, such as fuse caps, shall be stored in a Type 2 magazine.

When a Type 4 magazine is used for outdoor storage, such storage shall be in a constantly attended location or, if unattended, shall have wheels removed or the magazine immobilized by kingpin locking devices or by other *approved* security measures. When a quantity in excess of 50 pounds (22.7 kg) or explosive materials is stored outside of a building, such storage shall be located in accordance with nationally recognized standards.

#### **5610.4.3 Storage Against Walls.**

Explosive materials within a magazine shall not be placed directly against interior walls and shall not interfere with ventilation. To prevent contact of stored explosive materials with walls, a non-sparking lattice-work or other non-sparking material is allowed to be used.

#### **5610.4.4 Marking of Containers.**

Containers of explosive material shall be stored such that identifying marks are visible. Stocks of explosive materials shall be stored so they can be easily counted and checked upon inspection.

#### **5610.4.5 Unpacking and Repacking Containers.**

Containers of explosive materials shall not be unpacked or repacked inside a magazine or within 50 feet (15,250 mm) of a magazine and shall not be unpacked or repacked close to other explosive materials.

**Exception:** Unpacking and repacking of fiberboard and other nonmetallic containers.

#### **5610.4.6 Tools.**

Tools used for opening or closing containers of explosive materials shall be of non-sparking materials. A wood wedge and a fiber, rubber or wooden mallet shall be used for opening or closing wood containers of explosive materials. Metal tools, other than non-sparking transfer conveyors, shall not be stored in magazines containing high explosives.

**Exception:** Metal slitters are allowed to be used for opening fiberboard containers.

#### **5610.5 Smoking and Open Flames.**

Controls on smoking and open flames shall be in accordance with Section 5604.7.2.

#### **5610.6 Pyrotechnic/Flame Effects Operators.**

A pyrotechnic/flame effects operator shall obtain required permits and be responsible for notifying the Fire Chief prior to using the pyrotechnic special effects material. The pyrotechnic and/or flame effects operator shall have the authority and responsibility for the storage, use and handling of the pyrotechnic special effects material.

The authority of the pyrotechnic/flame effects operator shall not be assumed by anyone and shall be superseded only by the Fire Chief or designated representative.

#### **5610.7 Use of Pyrotechnic Special Effects Material.**

##### **5610.7.1 General precautions.**

###### **5610.7.1.1 Demonstration and Approval.**

When required by the Fire Chief, a test shall be conducted to demonstrate the safe use of pyrotechnic special effects material prior to normal use.

The use of pyrotechnic special effects material shall be approved by the pyrotechnic operator in charge.

###### **5610.7.1.2 Preparation.**

The company or producer shall allocate sufficient time to the pyrotechnic operator to prepare for the transportation, packing, storing and daily securing, and to dispose of or otherwise handle pyrotechnic special effects material in a safe manner.

###### **5610.7.1.3 Crowd Control.**

Onlookers shall be kept at a safe distance from the area where the pyrotechnic special effects material is discharged and so restrained until the area is cleared.

**5610.8 Smoke Control.**

When pyrotechnic special effects material is fired within a building, the quantity of smoke developed shall not obscure the visibility of exit signs or paths of egress travel.

The maximum density of smoke shall be approved, and the pyrotechnic operator shall ensure that the maximum density is not exceeded.

When required by the Fire Chief, provisions shall be made to confine smoke generated by pyrotechnic special effects material to an approved area and to remove such smoke from the building.

**5610.9 Binary Explosives.**

When binary explosives are used, the compounding and firing shall be performed by a pyrotechnic operator. Firing shall be subject to the conditions described in the permit.

**5610.10 Surplus Materials.**

Surplus materials shall be properly stored until it can be disposed of in a safe manner.

**5610.11 Standby Personnel and Equipment.**

When necessary for the preservation of life or property, the Fire Chief is authorized to require the attendance of standby personnel and fire equipment.

185. The amendment of Section 5703.6, entitled **Piping Systems**, to read as follows:

**5703.6 Piping systems.**

Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with this section. An approved method of secondary containment shall be provided for underground tank and piping systems.

186. The amendment of Section 5704.2.7.10, entitled **Leak Reporting**, to read as follows:

**5704.2.7.10 Leak Reporting.**

A consistent or accidental loss of liquid, or other indication of a leak from a tank system, shall be reported immediately to the fire department, the Fire Code Official and other authorities having jurisdiction. Leaking tanks shall be promptly emptied and removed from the ground.

187. The amendment of Section 5704.2.9.6.1, entitled **Locations where above-ground tanks are prohibited.**, to be retitled **Aboveground Tanks Located Outside, Above Grade**, and read as follows:

**5704.2.9.6.1 Aboveground Tanks Located Outside, Above Grade.**

The storage of Class I and Class II liquids in aboveground tanks outside of buildings and above grade is prohibited.

**Exceptions:**

1. Waste automotive crankcase oil may be stored in a permanent approved listed aboveground tank.
2. Class I and Class II fuels stored and dispensed at non-public locations at an approved aboveground dispensing station meeting the requirements of Chapter 23.
3. Aircraft Fuel-dispensing Stations may be designed, constructed and operated in accordance with Chapters 11 and 22.

188. The amendment of Section 5704.2.11.4, entitled **Leak Prevention**, to read as follows:

**5704.2.11.4 Leak Prevention.**

Leak prevention for underground tanks shall comply with this section. An approved method of secondary containment shall be provided for underground tank and piping systems.

189. The amendment of Section 5704.2.11.4, entitled **Leak Prevention**, by adding Section 5704.2.11.4.3, entitled **Dry sumps**, which shall read as follows:

**5704.2.11.4.3 Dry sumps.**

Approved sampling tubes of a minimum 6" 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" 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.



190. The amendment of Section 5706.3, entitled **Well drilling and operating**, et seq., to read as follows:

**5706.3 Well Drilling and Operating.**

Wells for oil and natural gas shall be drilled and operated in accordance with Sections 5706.3.1 through 5706.3.18 and an annual operational permit shall be obtained in accordance with Section 105.5.

**5706.3.1 Location.**

The location of wells shall comply with Sections 5706.3.1.1 and 5706.3.1.3.

**5706.3.1.1 Streets and Railways.**

Wells shall not be drilled in violation of minimum distances set out in the Gas Drilling and Production Chapter of the Code of the City of Arlington, Texas.

**5706.3.1.2 Site Access.**

Access roads shall be capable of supporting the load of a fire department apparatus and surfaced to provide all-weather driving capabilities. Prior to the commencement of any drilling operations, all private roads used for access to the drill site itself shall be at least twenty- four (24) feet wide and have an overhead clearance of fourteen (14) feet.

At a minimum, the road shall be surfaced with bituminous surface treatment (e.g., chip seal), but asphalt and concrete paving are acceptable. Roads shall not be surfaced with gravel or caliche. All private roads shall have a concrete drive approach constructed in accordance with City design standards. In particular cases these requirements governing surfacing of private roads may be altered at the discretion of the Fire Code Official after consideration of all circumstances including, but not limited to, the following: distances from public streets and highways; distances from adjoining and nearby property owners whose surface rights are not leased by the operation; the purpose for which the property of such owners is or may be used; topographical features; nature of the soil; and exposure to wind.

Watering, wetting, or other methods or materials must be used to control dust adjacent to residential property. Where required by the Fire Code Official, approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof.

**5706.3.1.2.1 Unobstructed Access.**

No vehicle or item of machinery shall be parked or stored on any street, right-of-way or in any driveway, alley or upon any operation site which constitutes a fire hazard or an obstruction to or interference with fighting or controlling fires except that equipment which is necessary for drilling or production operations on the site. The fire department shall be the entity that determines whether any equipment on the site shall constitute a fire hazard.

**5706.3.1.2.2 Gate Locks and Key Boxes.**

Each well site shall restrict access to the general public and provide fire department access by installing an approved lock on gates between the public roadway and the pad site, as required by the Fire Code Official. In addition, an approved key box may be required in various locations, as determined by the Fire Code Official. The installation and maintenance of these locks shall also comply with the requirements of Section 506.1 through 506.2.

**5706.3.1.3 Distance from Buildings.**

Wells shall not be drilled in violation of minimum distances from buildings, as set forth in the Gas Drilling and Production Chapter of the Code of the City of Arlington, Texas.

**5706.3.1.3.1 Group A, E, and I Buildings.**

Wells shall not be within 300 feet of buildings with an occupancy type of Group A, E, or I.

**5706.3.1.3.2 Existing Wells.**

In regards to existing wells, new buildings shall not be constructed or occupied within the distances set forth in Section 5706.3.1.3.

**5706.3.1.4 Electrical Wiring and Equipment.**

Electrical wiring and equipment shall be installed and maintained in accordance with the currently adopted City of Arlington Electrical Code.

**5706.3.1.4.1 Lightning Arrestors.**

All storage tanks and other equipment shall be equipped with an approved lightning arrestor system, in accordance with this code and NFPA 780.

**5706.3.1.5 Piping Supports, Bracing, Foundations and Anchoring.** Piping supports used for piping utilized in drilling

operations only including piping bracing, foundations and anchoring shall comply with Section 5003.2.8 and Section 35703.6.8.

**Exception:** Subsurface natural gas storage, gathering and transmission pipelines.

**5706.3.2 Waste control.**

Control of waste materials associated with wells shall comply with Sections 5706.3.2.1 and 5706.3.2.2.

**5706.3.2.1 Discharge on a Street or Water Channel.**

Liquids containing crude petroleum or its products shall not be discharged into or on streets, highways, drainage canals or ditches, storm drains or flood control channels.

**5706.3.2.2 Discharge and Combustible Materials on Ground.**

The surface of the ground under, around or near wells, pumps, boilers, oil storage tanks or buildings shall be kept free from oil, waste oil, refuse, waste material, or combustible materials.

**5706.3.3 Sumps.**

Sumps associated with wells shall comply with Sections 5706.3.3.1 through 5706.3.3.3.

**5706.3.3.1 Maximum Width.**

Sumps or other basins for the retention of oil or petroleum products shall not exceed 12 feet (3658 mm) in width.

**5706.3.3.2 Backfilling.**

Sumps or other basins for the retention of oil or petroleum products larger than 6 feet by 6 feet by 6 feet (1829 mm by 1829 mm by 1829 mm) shall not be maintained longer than 60 days after the cessation of drilling operations.

**5706.3.3.3 Security.**

Sumps, diversion ditches and depressions used as sumps shall be securely fenced or covered.

**5706.3.4 Prevention of Blowouts.**

Protection shall be provided to control and prevent the blowout of a well. Protection equipment shall meet federal, state, and other applicable jurisdiction requirements.

#### **5706.3.5 Storage Tanks.**

Storage of flammable or combustible liquids in tanks shall be in accordance with Section 5704. Oil storage tanks or groups of tanks shall have posted in a conspicuous place, on or near such tank or tanks, an approve sign with the name of the owner or operator, or the lease number and the telephone number where a responsible person can be reached at any time.

#### **5706.3.6 Soundproofing.**

Where soundproofing material is required during oil field operations, such material shall be noncombustible.

#### **5706.3.7 Signs.**

A sign shall be displayed immediately and prominently at the gate on the fencing erected pursuant to the City of Arlington Gas Drilling and Production Chapter of the City Code of Ordinances. Such sign shall be durable material, maintained in good condition and, unless otherwise required by the Texas Railroad Commission, shall have a surface area of not less than two (2) square feet or more than four (4) square feet and shall be lettered with the following:

1. Well name and number;
2. Name of Operator;
3. The emergency 911 number; and
4. Telephone numbers of two (2) persons responsible for the well who may be contacted in case of emergency.

##### **5706.3.7.1 Street or Road Signs.**

When required by the Fire Code Official, an approved street address sign shall be located at the intersections on the main access to the drilling site. This sign shall be in contrasting letters 4 inches in height, minimum width stroke 0.5 inches and shall also include a directional arrow indicating direction of travel. Signs must be visible from the public street to which the site is addressed.

Where required by the fire official, approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof.

##### **5706.3.7.2 Well Head Signs.**

Well locations shall have posted, in a conspicuous place on or near the well heads, an approved sign with the name of the owner or operator, name of the leasee or the lease number, the well number and two telephone numbers where a responsible person can be reached at any time.

#### **5706.3.7.3 Hazardous Materials Identification.**

A visible hazard identification sign, as specified in NFPA 704 for the specific material contained, shall be placed on all stationary containers and aboveground tanks and at entrances to all pad sites.

**Exception:** Subsurface natural gas pipelines and storage.

#### **5706.3.8 Fire Protection Systems.**

Fire protection systems or equipment shall be installed when required by the Fire Code Official. Fire protection equipment required under this section shall be installed in accordance with this code and any applicable referenced standards.

##### **5706.3.8.1 Fire Protection System Inspection, Testing and Maintenance.**

Fire protection systems or equipment shall be inspected, tested, and maintained in accordance with this code and any applicable referenced standards.

##### **5706.3.8.2 Records.**

Records of all fire protection system inspections, tests and maintenance required by the referenced standards shall be maintained by the operator of the gas well site and shall be made available to the Fire Code Official upon request.

##### **5706.3.8.3 Supervision.**

Fire protection systems required by this section shall be supervised by an approved method or shall initiate an audible and visual signal at a constantly attended on-site location that shall be approved by the Fire Code Official.

##### **5706.3.8.4 Fire Protection Systems Out of Service.**

Where a required fire protection system is out of service, the fire department shall be notified immediately.

##### **5706.3.8.5 Fire Protection Water Supplies.**

When required, fire hydrant systems for fire protection shall be installed in accordance with Section 507.5.1.

###### **5706.3.8.5.1 Required Hydrant Flow.**

All fire hydrants required by this section shall provide a minimum flow of 1500 gal/min. for a time period of no less than 2 hours.

**5706.3.8.5.2 Fire hydrant inspection, testing and maintenance.** Fire hydrant systems shall be subject to periodic test as required by the Fire Code Official.

**5706.3.8.6 Portable fire extinguishers.**

An extinguisher shall be on site at all times when personnel are present. Portable fire extinguishers shall be properly maintained, serviced and installed.

**5706.3.9 Well Site Monitoring.**

All sites that are actively being drilled or fracked shall have at least one dedicated safety officer on location at all times. All wells shall have approved off-site monitoring technology that has the capability to shut the well in from a remote location. Any air monitoring equipment within the well site shall have the capability to be accessed off-site from a remote location. These systems shall be immediately accessible by first responders.

**5706.3.10 Emergency Shut-In Device.**

All well sites shall have an adequately marked emergency shut-in device that is readily accessible to first responders at all times. This device shall be labeled appropriately and shall not require any special key, code, or knowledge to operate. Unless otherwise allowed by the Fire Code Official, at least one emergency shut-in device shall be installed at the entrance to the pad site. This device shall immediately shut-in all well heads on the site and shall terminate any other operation, as determined by the Fire Code Official.

**5706.3.11 Emergency Response.**

Site safety officers or safety contractors shall have consistent emergency response protocols approved by the Fire Department and shall have a reasonable response time after the time of first notification consistent with the circumstances of the risk and danger to human life and property.

**5706.3.12 Security.**

The well pad site shall be secured at all times to restrict unauthorized entry by, at minimum, a permanent security fence constructed around the site and at least one security camera mounted inside the enclosure along with signs as provided in the Arlington Gas Drilling and Production Chapter. A minimum video recording of five days must be maintained by the operator of the site and shall be made immediately available to the Fire Code Official upon request. The security camera(s) must be of an approved type and arrangement that can assure quality recording during day or night.

**5706.3.13 Exit Signs.**

All designated egress points from the pad site shall be indicated with an approved, all-weather EXIT sign. This sign shall have the capability to be distinguishable day or night from all open areas of the pad site.

**5706.3.14 Fire Evacuation and Fire Safety Plans.**

Site specific fire evacuation and fire safety plans shall be provided for all pad sites. This plan shall be standardized (written in accordance with Chapter 4) and shall be on location at all times. These plans shall be contained in an approved red painted cabinet or mailbox with Fire Department accessibility with an approved lock in accordance with Section 506.1.1. This cabinet or mailbox shall be weather resistant and located within ten (10) feet of the emergency shut-in device and in other locations as designated by the Fire Code Official.

**5706.3.14.1 Hazardous Materials Management Plan (HMMP).**

A hazardous materials management plan and all material safety data sheets (MSDS) for all hazardous materials that will be located, stored, transported and/or temporarily used on the operations site must be available for inspection by the Fire Code Official and comply with Section 3406.3.11 to the extent required by federal and state law. A copy of any required federal or state plan will be provided to the Fire Code Official.

Plans should be standardized, contained in a tamper protected red painted cabinet with Fire Department accessibility with an approved locking device, weather resistant and located within ten (10) feet of the emergency shut-in device on every site.

**5706.3.15 Vehicle Impact Protection.**

Where well heads, tanks, piping, electrical conduit or dispensers are subject to vehicular impact, approved impact protection in compliance with impact test protocol of UL 2085, by meeting the requirements of Section 312, or a combination of both, shall be provided in all locations, as determined by the Fire Code Official.

**Exception:** Well heads that are below grade.

**5706.3.16 Emergency Power.**

Well sites shall have emergency power available for all emergency lighting, illuminated signage, and for any process, system, or device that requires uninterrupted electric power for proper operation to the extent required by law.

**Exception:** Compressor stations, gathering or transmission pipelines.

**5706.3.17 Emergency Management Planning.**

Site operators shall participate in the City's emergency management notification network as well as participate and support emergency management preparedness and planning functions. Site operators shall provide formal communication links from the operator to the Fire Code Official about the various stages of development or use of a well site.

**5706.3.18 Field-loading Racks.**

Field-loading racks shall be in accordance with Section 5706.5.

191. The amendment of Section 6103.2.1, entitled **Portable containers**, by adding Section 6103.2.1.8, entitled **Jewelry Repair, Dental Labs, and Similar Occupancies**, which shall 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.

192. The amendment of Section 6104.3, entitled **Container Location.**, by adding Section 6104.3.3, entitled **Spas, Pool Heaters and Other Listed Devices**, which shall read as follows:

**6104.3.3 Spas, Pool Heaters and Other Listed Devices.**

LP-Gas containers are allowed to be used to supply spa and pool heaters or other listed devices; such containers shall not exceed 250-gallon water capacity. 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.

193. The amendment of Section 6107.4, entitled **Protecting Containers from Vehicles**, 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.



194. The amendment of Section 6109.13, entitled **Protection of containers**, by deleting its Exception in its entirety.
195. The amendment of Chapter 80, entitled **Referenced standards**, by adding the following:

[NFPA] 96 – 20 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations

[NFPA] 1221 – 19 Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems

[NFPA] 1989 – 13 Breathing Air Quality for Fire Emergency Services Respiratory Protection

#### **Section 1.04 Adoption of Appendices**

The following Appendices contained in the *International Fire Code, 2021 Edition*, are adopted and made a part of this code:

1. Appendix B – entitled **FIRE-FLOW REQUIREMENTS FOR BUILDINGS**, except that Table B105.2 is hereby amended to change the text of footnote a. to read as follows:
  - a. The reduced fire-flow shall be not less than 1,500 gallons per minute.
2. Appendix E – entitled **HAZARD CATEGORIES**, in its entirety.
3. Appendix F – entitled **HAZARD RANKING**, in its entirety.
4. Appendix H – entitled **HAZARDOUS MATERIALS MANAGEMENT PLAN AND HAZARDOUS MATERIALS INVENTORY STATEMENT INSTRUCTIONS**, in its entirety.
5. Appendix L – entitled **REQUIREMENTS FOR FIRE FIGHTER AIR REPLENISHMENT SYSTEMS**, is amended in its entirety and shall read as follows:

### **APPENDIX L REQUIREMENTS FOR FIRE FIGHTER AIR REPLENISHMENT SYSTEMS**

#### **SECTION L101 GENERAL**

**L101.1 Scope.**

Fire fighter air replenishment systems (FARS) shall be provided in accordance with this appendix and other requirements as determined by the Fire Chief or Fire Code Official.

**L101.1.1 Where Required – New Buildings.**

FARS shall be required in all newly constructed buildings that meet any of the following criteria:

1. If the roof assembly is located more than 55 feet above the lowest level of required fire department vehicle access; or
2. If the lowest point of the building is greater than 2 floors below the lowest level of required fire department vehicle access; or
3. If the building exceeds 500,000 sq. ft. of any single, continuous fire area.

**SECTION L102  
DEFINITIONS**

**L102.1 Definitions.**

For the purpose of this appendix, certain terms are defined as follows:

**FIRE FIGHTER AIR REPLENISHMENT SYSTEM (FARS).**

A permanently installed arrangement of piping, valves, fittings, and equipment to facilitate the replenishment of breathing air in self-contained breathing apparatus (SCBA) for fire fighters engaged in emergency operations.

**SECTION L103  
PERMITS**

**L103.1 Permits.**

Permits shall be required to install, modify, or maintain a FARS. Permits shall be in accordance with Section L103.2 and L103.3.

**L103.2 Construction permits.**

A construction permit in accordance with Section 105.6 is required for the installation or modification of a FARS. The construction permit application shall include documentation of an approved acceptance and testing plan as specified in Section L105.

**L103.3 Operational permits.**

An operational permit in accordance with Section 105.5 is required to maintain a FARS.

**SECTION L104  
DESIGN AND INSTALLATION**

**L104.1 Design and installation.**

A FARS shall be designed and installed in accordance with Sections L104.2 through L104.15.

**L104.2 Standards.**

FARS shall be in accordance with Sections L104.2.1 and L104.2.2.

**L104.2.1 Pressurized system components.**

Pressurized system components shall be designed and installed in accordance with ASME B31.3.

**L104.2.2 Air quality.**

The system shall be designed to convey breathing air complying with NFPA 1989.

**L104.3 Design and operating pressure.**

The minimum design pressure shall be 4950 psi. The system design pressure shall be marked in an approved manner at the supply connections, and adjacent to pressure gauges on any fixed air supply components. Pressure shall be maintained in the system within 5 percent of the design pressure at all times.

**L104.4 Cylinder refill rate.**

The system shall be capable of refilling breathing air cylinders of a size and pressure used by the fire department at a rate of not less than two empty cylinders in two minutes.

**L104.5 Breathing air supply.**

The system shall include a stored pressure air supply in accordance with Section L104.5.1 and an external mobile air connection in accordance with Section L104.14. The system shall be arranged so that failure of the stored air supply or any other related component(s) shall not impair the ability of the external mobile air connection to supply air to all connections throughout the building.

**L104.5.1 Stored pressure air supply.**

A stored pressure air supply shall be designed based on Chapter 24 of NFPA 1901, with the exception of provisions that only apply to mobile apparatus. The stored pressure air supply shall be capable of refilling not less than 50 empty breathing air cylinders of a size and pressure used by the fire department.

**L104.5.2 Location.**

The stored pressure air supply, compressor, and all appurtenances shall be located in the building's Fire Pump Room. In buildings without a dedicated Fire Pump Room, these components shall be provided in a room with a fire resistive rating of not less than that required of a Fire Pump Room in the same building. The room or area in which the stored air pressure supply and other components are located shall be secured from unauthorized entry; a key box in accordance with Section 506 shall be installed and maintained for entry into this room or area. The stored pressure air supply, compressor, and all appurtenances shall have a minimum of 36 inches of working clearance around all components.

**L104.6 Isolation valves.**

System isolation valves that are accessible to the fire department shall be installed on the system riser to allow piping beyond any air cylinder refill panel to be blocked.

**L104.7 Pressure relief valves.**

Pressure relief valves shall be installed at each point of supply and at the top or end of each riser. The relief valve shall meet the requirements of CGA S-1.3 and shall not be field adjustable. Pressure relief valves shall discharge in a manner that does not endanger personnel who are in the area. Valves, plugs, or caps shall not be installed in the discharge of a pressure relief valve. Where discharge piping is used, the end shall not be threaded.

**L104.8 Materials and equipment.**

Pressurized system components shall be listed and approved for their intended use and rated for the maximum allowable design pressure in the system. Piping and fitting shall be stainless steel.

**L104.9 Welded connections.**

Piping connections that are concealed shall be welded.

**L104.10 Protection of piping.**

System piping shall be protected from physical damage in an approved manner. System piping, tanks, and all other components shall be securely fastened and/or attached in an approved manner to prevent damage to the system. Penetrations for piping shall comply with Section 703.1 and applicable sections of the International Building Code.

**L104.11 Compatibility.**

Fittings and connections intended to be used by the fire department shall be compatible with the fire department's equipment. If at any time, the fire department changes equipment that is designed to be interfaced with the system, corresponding system fittings and connections shall be changed to be compatible with fire department's equipment within a timeframe as determined by the Fire Chief or Fire Code Official.

**L104.12 Security.**

Connections to a FARS shall be safeguarded from unauthorized access in an approved manner. The room or area in which the stored air pressure supply and other components are located shall be secured from unauthorized entry; a key box in accordance with Section 506 shall be installed and maintained for entry into this room or area.

**L104.13 Fill stations.**

Fire fighter air replenishment fill stations shall comply with Section L104.13.1 through L104.13.3.

**L104.13.1 Locations.**

Fill stations for refilling breathing air cylinders shall be located as follows:

1. Fill stations shall be provided adjacent to all standpipe connections in multi-story buildings meeting the criteria of Section L101.1.1 #1, starting on the second floor above the lowest level of required fire vehicle access, and continuing thereafter.
2. Fill stations shall be provided adjacent to all standpipe connections in sub-grade buildings meeting the criteria of Section L101.1.1 #2, starting on the second floor below the lowest level of required fire vehicle access, and continuing thereafter.
3. Fill stations shall be provided adjacent to all standpipe connections in buildings meeting criteria of Section L101.1.1 #3.

#### **L104.13.2 Design.**

Fill stations for breathing air cylinders shall be designed to meet the following requirements:

1. A pressure gauge and pressure-regulating devices and controls shall be provided to allow the operator to control the fill pressure and fill rate on each cylinder fill hose.
2. Valves controlling cylinder fill hoses shall be slow-operating valves.
3. A separate flow restriction device shall be provided on each fill hose.
4. An approved method shall be provided to bleed each cylinder fill hose.
5. All fill stations shall provide for the direct refilling of the fire fighters' breathing air cylinder using Rapid Intervention Crew/Company Universal Air Connection (RIC/UAC) fittings in lieu of cylinder fill stations that utilize containment areas. Unless otherwise authorized by the Fire Chief or Fire Code Official, fill stations that utilize containment areas are not allowed.

#### **L104.13.3 Cylinder fill rate.**

Fill stations shall be capable of simultaneously filling two or more empty breathing air cylinders equivalent to those used by the fire department to the cylinders' design pressure within 2 minutes.

#### **L104.14 External mobile air connection.**

An external mobile air connection shall be provided.

##### **L104.14.1 Location.**

External mobile air connections shall be located adjacent to the building's fire department connection at a reasonable height and position, as determined by the Fire Code Official. When the fire department connection is located remotely away from the building, the external mobile air connection shall be located adjacent to the entry door to the Riser/Pump Room at a reasonable height and position, as determined by the Fire Code Official or in another location as approved by the Fire Chief or Fire Code Official.

**L104.14.2 Protection from vehicles.**

A means of vehicle impact protection in accordance with Section 312 shall be provided to protect mobile air connections that are subject to vehicular impact.

**L104.14.3 Clear working space.**

A working space of not less than 36 inches in width, 36 inches in depth, and 78 inches in height shall be provided and maintained in front of and to the sides of external mobile air connections.

**L104.15 Air monitoring system.**

An approved air monitoring system shall be provided. The system shall automatically monitor air quality, moisture and pressure on a continual basis. The air monitoring system shall be equipped with not less than two content analyzers capable of detecting carbon monoxide, carbon dioxide, nitrogen, oxygen, moisture, and hydrocarbons.

**L104.15.1 Alarm conditions.**

The air monitoring system shall automatically transmit a supervisory signal when any of the following levels are detected:

1. Carbon monoxide exceeds 5 ppm.
2. Carbon dioxide exceeds 1,000 ppm.
3. Any oxygen level below 19.5 percent or above 23.5 percent.
4. A nitrogen level below 75 percent or above 81 percent.
5. Hydrocarbon (condensed) content exceeds 5 milligrams per cubic meter of air.
6. Moisture concentration exceeds 24 ppm by volume.
7. The pressure falls below 95 percent of the maintenance pressure specified in Section L104.3.

**L104.15.2 Alarm supervision, monitoring, and notification.**

The air monitoring system shall be electrically supervised by the building's fire alarm system and shall be monitored by an approved central station. Alarm conditions shall automatically transmit a supervisory signal to the fire alarm control panel and shall produce an audible and visual alarm.

**L104.15.3 Air quality status display.**

Air quality status shall be visually displayed at the external mobile air connection required by Section L104.14.

**SECTION L105  
ACCEPTANCE TESTS**

**L105.1 Acceptance tests.**

Upon completion of the installation, every system or modification of an existing system shall be acceptance tested to verify compliance with equipment manufacturers' instructions and design documents. Oversight of the acceptance tests shall be provided by a registered design professional who designed the system and is knowledgeable of the system's

components and operation. The Fire Code Official shall also be present for all acceptance tests. Testing shall include, but not be limited to, all of the following:

1. A pneumatic test in accordance with ASME B31.3 of the complete system at minimum test pressure of 110 percent of the system design pressure using oil free dry air, nitrogen, or argon shall be conducted. Test pressure shall be maintained for not less than 24 hours. During this test, all fittings, joints, and system components shall be inspected for leaks. Defects in the system or leaks detected shall be documented and repaired. A leak or failure of the system shall yield in another inspection in accordance with this section.
2. A cylinder-filling performance test shall be conducted to verify compliance with the required breathing air cylinder refill rate from the exterior mobile air connection and a stored air pressure supply system.
3. The air quality monitoring system shall be tested to verify both of the following conditions:
  - 3.1 Visual indicators required by Section L104.15.1 function properly.
  - 3.2 Supervisory signals are transmitted as required by Section L104.15.2 for each sensor based on a sensor function test.
4. Connections intended for fire department use shall be confirmed as compatible with the fire department's mobile air unit, SCBA cylinders, and RIC/UAC connections.
5. Air samples shall be taken from not less than two fill stations and submitted to an *approved* gas analysis laboratory to verify compliance with NFPA 1989. The FARS shall not be placed into service until a written report verifying compliance with NFPA 1989 has been provided to the Fire Code Official.

## **SECTION L106 INSPECTION, TESTING, AND MAINTENANCE**

### **L106.1 Periodic inspection, testing, and maintenance.**

A FARS shall be continuously maintained in an operative condition and shall be inspected not less than annually. Not less than quarterly, an air sample shall be taken from the system and tested to verify compliance with NFPA 1989. The laboratory test results shall be maintained on site with the FARS and shall also be sent to the Fire Code Official.

## **SECTION L107 REFERENCED STANDARDS**

**ASME B31.3 – 2020 Process Piping**  
**CGA S-1.3 – 2008 Pressure Relief Device Standards**

**NFPA 1901 – 2016 Standard for Automotive Fire Apparatus**  
**NFPA 1989 – 2013 Breathing Quality for Fire Emergency Services  
Respiratory Protection**

**Section 1.05 Incorporation of the Enhanced Radio Coverage Information Packet**

The most current edition of the City of Arlington Texas Enhanced Radio Coverage Information packet is made a required part of this code. A copy can be made available by contacting the Fire Marshal's Office or the Arlington Fire Department's Communication Office.

2.

Any person, firm, corporation, agent or employee thereof who violates any of the provisions of this ordinance shall be guilty of a misdemeanor and upon conviction thereof shall be fined an amount not to exceed Two Thousand Dollars and No Cents (\$2,000.00) for each offense. Each day that a violation is permitted to exist shall constitute a separate offense.

3.

This ordinance shall be and is hereby declared to be cumulative of all other ordinances of the City of Arlington; and this ordinance shall not operate to repeal or affect any of such other ordinances except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this ordinance, in which event such conflicting provisions, if any, in such other ordinance or ordinances are hereby repealed.

4.

If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be unconstitutional, such holding shall not affect the validity of the remaining portions of this ordinance.

5.

All of the regulations provided in this ordinance are hereby declared to be governmental and for the health, safety and welfare of the general public. Any member of the City Council or any City official or employee charged with the enforcement of this ordinance, acting for the City of Arlington in the discharge of his/her duties, shall not thereby render himself/herself personally liable; and he/she is hereby relieved from all personal liability for any damage that might accrue to persons or property as a result of any act required or permitted in the discharge of his/her said duties.



6.

Any violation of this ordinance can be enjoined by a suit filed in the name of the City of Arlington in a court of competent jurisdiction, and this remedy shall be in addition to any penal provision in this ordinance or in the Code of the City of Arlington.

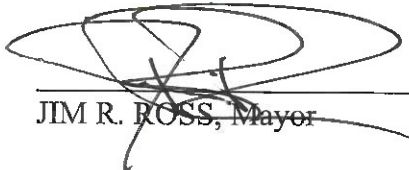
7.

The caption and penalty clause of this ordinance shall be published in a newspaper of general circulation in the City of Arlington, Texas, in compliance with the provisions of Article VII, Section 15, of the City Charter. Further, this ordinance may be published in pamphlet form and shall be admissible in such form in any court, as provided by law.

8.

This ordinance shall become effective on January 1, 2023.


PRESENTED AND GIVEN FIRST READING on the 25th day of October, 2022, at a regular meeting of the City Council of the City of Arlington, Texas; and GIVEN SECOND READING, passed and approved on the 1st day of November, 2022, by a vote of 8 ayes and 0 nays at a regular meeting of the City Council of the City of Arlington, Texas.

  
\_\_\_\_\_  
JIM R. ROSS, Mayor

ATTEST:

  
\_\_\_\_\_  
ALEX BUSKEN, City Secretary

APPROVED AS TO FORM:  
MOLLY SHORTALL, City Attorney

BY   
\_\_\_\_\_