

**ORDINANCE NO. 20130606-092**

**AN ORDINANCE REPEALING AND REPLACING ARTICLE 7 OF CITY CODE CHAPTER 25-12 TO ADOPT THE 2012 INTERNATIONAL FIRE CODE AND LOCAL AMENDMENTS.**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:**

**PART 1.** City Code Chapter 25-12 is amended to repeal Article 7 (*Fire Code*) and replace it with a new Article 7 to read as follows:

***ARTICLE 7. FIRE CODE***

**§ 25-12-171 FIRE CODE.**

- (A) The publication known as the 2012 Edition of the International Fire Code, including the appendices, published by the International Code Council, is adopted by reference as amended by this article.
- (B) The following provisions of the 2012 International Fire Code are deleted. A subsection contained within a deleted section or subsection is not deleted, unless specifically listed below.

Sec. 101.1	Sec. 102.7	Sec. 102.7.1	Sec. 102.7.2
Sec. 103.1	Sec 103.2	Sec. 103.3	Sec. 103.4
Sec. 103.4.1	Sec. 104.1	Sec. 104.8	Sec. 104.9
Sec. 105.3.1	Sec. 105.4	Sec. 105.4.1	Sec. 105.4.1.1
Sec. 105.4.2	Sec. 105.4.2.1	Sec. 105.4.4	Sec. 105.6
Sec. 105.6.1 through Sec. 105.6.46		Sec. 105.7	
Sec. 105.7.1 through 105.7.16		Sec. 108.1	Sec. 108.2
Sec. 108.3	Sec. 109.3.2	Sec. 109.3.3	Section 109.3.4
Sec. 113.1 through 113.5		Sec. 304.3.3	Sec. 307.2
Sec. 307.4	Sec. 308.1.4	Sec. 311.5	Sec. 311.5.1
Sec. 311.5.2	Sec. 311.5.3	Sec. 311.5.4	Sec. 311.5.5
Sec. 401.3	Sec. 401.3.1	Sec. 401.3.2	Sec. 401.3.3
Sec. 503.1	Sec. 503.2.1	Sec. 503.2.2	Sec. 503.2.4
Sec. 503.3	Sec. 503.4.1	Sec. 507.3	Sec. 507.4
Sec. 507.5.1	Sec. 507.5.3	Sec. 510.1	Sec. 603.3.2

Sec. 603.3.2.1	Sec. 603.3.2.2	Sec. 603.3.2.3	Sec. 603.3.2.4
Sec. 901.5	Sec. 903.2.6	Sec. 903.3.1.2.1	Sec. 903.3.1.3
Sec.903.3.5.2	Sec. 903.3.6	Sec. 904.9	Sec. 904.11
Sec. 905.1	Sec 905.3.1	Sec. 905.3.4.1	Sec. 905.4
Sec. 905.5.3	Sec. 906.1	Sec. 907.2	Sec. 907.2.7
Sec. 907.2.8.1	Sec. 907.2.8.2	Sec. 907.2.9	Sec. 907.2.9.1
Sec. 907.2.9.2	Sec. 907.2.13.2	Sec. 907.5.1	Sec. 907.6.5
Sec. 909	Sec. 912.1	Sec. 912.3	Sec. 912.3.1
Sec. 914.3.1	Table 1004.1.2	Sec. 1004.2	Sec. 1004.3
Sec. 1008.1.9.8	Sec. 1030.2	Sec. 1102.1	Sec. 1103.6.1
Sec. 1103.7.6	Sec. 1103.8.3	Sec. 1103.9	Title to Chapter 23
Sec. 2301.1	Sec. 2304.1	Sec. 2304.2	Sec. 2305.1.3
Sec. 2305.2.1	Sec. 2305.3	Sec. 3103.5	Sec. 3103.8.2
Sec. 5001.2	Sec. 5001.5	Sec. 5001.5.1	Sec. 5001.5.2
Sec. 5003.3.1.4	Table 5003.1.1(1) Footnote i		<i>Table 5003.1.1(3)</i>
<i>Table 5003.1.1(4)</i>	Sec. 5003.9.8	Sec. 5004.2	
Sec. 5004.2.1	Sec. 5004.2.2	Sec. 5004.2.2.1	Sec. 5004.2.2.2
Sec. 5004.2.2.5	Sec. 5004.2.2.6	Sec. 5306.2	Sec. 5306.2.1
Sec. 5306.2.2	Sec. 5306.2.3	Sec. 5306.3	Sec. 5404.2
Sec. 5404.2.1	Sec. 5504.3.1.1	Sec. 5601.2.4	Sec. 5601.4
Sec. 5607.5	Sec. 5703.4	Sec. 5704.2.9.6.1	Sec. 5704.2.10
Sec. 5704.2.10.1	Sec. 5704.2.11.2	Sec. 5704.2.11.3	Sec. 5704.2.11.5.1
Sec. 6101.2	Sec. 6104.2		
Chapter 80, NFPA References to NFPA 13, 13D, 13R, and 72			
Appendix A	Appendix B, Section B105.1	Appendix C	
Appendix D	Appendix F, Sections F101.1 and F101.2		
Appendices H, I and J			

- (C) The City Clerk shall file a copy of the 2012 Edition of the International Fire Code and local amendments adopted in Section 25-12-172 with the official ordinances of the City.
- (D) In the City Code, “Fire Code” means the 2012 International Fire Code as adopted by Section 25-12-171 (*Fire Code*) and the local amendments to the 2012 International Fire Code adopted by Section 25-12-172 (*Local Amendments to the Fire Code*). Fire Code sections may be cited by reference to the appropriate section or as a section of the International Fire Code (e.g., IFC Section 101). In this article, “this code” means the Fire Code.

## **§ 25-12-172 LOCAL AMENDMENTS TO THE FIRE CODE.**

The following provisions are local amendments to the 2012 International Fire Code. Each provision in this section is a substitute for the identically numbered provision deleted by Section 25-12-171(A) (*Fire Code*), or is a local addition to the 2012 International Fire Code.

**101.1 Title.** These regulations shall be known as the Fire Code of the City of Austin, hereinafter referred to as the “Code” or “Fire Code”.

**102.7 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 80 and such codes and standards shall be considered 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.

**[A] 102.7.1 Conflicts.** Unless precedence is specified by another ordinance of the City, where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply. In the event of a conflict between referenced provisions of the International Mechanical Code and the Mechanical Code, the Mechanical Code prevails. In the event of a conflict between referenced provisions of the International Plumbing Code, the International Fuel Gas Code and the Plumbing Code, the Plumbing Code prevails.

**[A] 102.7.2 Provisions in referenced codes and standards.** Unless precedence is specified by another ordinance of the City, where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

**103.1 General.** The Austin Fire Department, under the direction of the Fire Chief, shall implement, administer and enforce the provisions of this code.

**103.2 Appointment.** The Fire Chief shall be appointed by the City Manager in accordance with the policies and procedures of the City of Austin and in compliance with state law. The Fire Chief shall serve as the fire code official.

**103.3 Deputies.** In accordance with the policies and procedures of the Austin Fire Department the Fire Chief shall appoint a Fire Marshal and shall have the authority to appoint assistant fire marshals, inspectors and/or other employees and to delegate duties. Where the terms “fire code official”, “fire chief”, “chief”, “fire department”, or “fire marshal” are used in this code, the provisions shall also apply to assistant fire marshals, inspectors, engineering professionals and other fire department employees in the execution of their assigned duties.

**103.4 Liability for Damages.** The Fire Chief may not be held personally liable for any damages that may accrue to persons or property as a result of any act or by reason of any act or omission in the discharge of his duties when he acts in good faith and without malice in the discharge of his duties. Additionally, this code shall not be construed to hold the City or any officer or employee responsible for any damage to persons or property by reason of inspection or reinspection authorized or provided in this Chapter or by reason of the approval or disapproval of any equipment or process authorized in this chapter, or for any action in connection with the control or extinguishment of any fire or in connection with any other official duties. Any suit brought against the Fire Chief because of any act or omission performed by him in the enforcement of any provision of the International Fire Code or this Chapter shall be handled in accordance with the resolution adopted by City Council on April 9, 1987 relating to employee indemnification.

This code does not reduce the responsibility of any person owning, operating or controlling any building or structure for any damages to persons or property caused by defects, nor shall the Austin Fire Department or the City of Austin assume any liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

**104.1 General.** The Fire Chief is hereby authorized to administer and enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code. Under the Fire Chief's direction, the fire department is authorized to enforce all ordinances of the jurisdiction pertaining to:

1. The prevention of fires,
2. The suppression or extinguishment of dangerous or hazardous fires,
3. The storage, use and handling of hazardous materials,

4. The installation and maintenance of automatic, manual and other private fire alarm systems and fire-extinguishing equipment,
5. The maintenance and regulation of fire escapes,
6. The maintenance of fire protection and the elimination of fire hazards on land and in buildings, structures and other property, including those under construction,
7. The maintenance of means of egress, and
8. The investigation of the cause, origin and circumstances of fire and unauthorized releases of hazardous materials.

For authority related to control and investigation of emergency scenes, see Section 104.10.

**104.1.1 Fire prevention bureau personnel and police.** The Fire Chief and members of the fire department assigned to enforce this code are authorized to issue citations for violations of this code.

**104.8 Modifications.** Whenever there are practical difficulties involved in carrying out the provisions of this code, the Fire Chief shall have the authority to grant modifications for individual cases, provided the Fire Chief shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the fire department.

**104.9 Alternative materials and methods.** The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been approved. The fire chief is authorized to approve an alternative material or method of construction where the fire chief finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety. The owner, lessee, or a representative shall apply for approval of an alternate material or method in writing, detailing the specifics of the alternate materials or methods including evidence of equivalence with the prescribed requirements of this code. An approval under this code is also subject to the approval of the building official whenever the alternate material or method involves matters regulated by the Building Code.

**104.10.2 Fire Chief.** The Fire Chief, or his or her designee, may summon and compel the attendance of witnesses before him or her to testify regarding any matter relating to the inquiry and investigation of the cause, origin and circumstance of fire, and may require the production of any book, paper or other pertinent document. The Fire Chief may

administer oaths and affirmations to any person appearing as a witness before him. A witness who refuses to be sworn, or who disobeys any lawful order of the Fire Chief, or refuses to produce any book, paper, or document regarding any matter under examination, or who is guilty of any contemptuous conduct after being summoned to give testimony on any matter under investigation, is guilty of a violation of this code. The Fire Chief may make a complaint against any person refusing to comply with the summons or the order of the Fire Chief before any Justice of the Peace or before the Judge of the Municipal Court in the manner as in other criminal cases.

**104.12 Authority of the Chief.** The Fire Chief, or his or her designee, may order the evacuation of or cessation of its use or operation of any area, premises, building, building under construction, or vehicle which is or is in imminent danger of becoming a fire hazard, a chemical exposure hazard, or a life or health hazard as a result of flooding or other dangerous condition.

**105.3.1 Expiration.** An operational permit shall remain in effect until reissued, renewed, or revoked or for such a period of time as specified in the permit. Construction permits shall be issued and administered in accordance with the International Building Code as amended by the City. Unless otherwise provided in this code, permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

**105.4 Construction documents.** Construction documents shall be in accordance with this section and in accordance with the guidance in the City's "Fire Protection Criteria Manual".

**105.4.1 Submittals.** Construction documents and supporting data that are part of site plan or building permit submittals shall be submitted in accordance with the requirements of the City of Austin Land Development Code. Shop drawing submittals subsequent to building permit review shall be submitted directly to the fire department in two or more sets in such form and detail as required by the fire chief. The construction documents shall be prepared by a registered design professional, licensed fire alarm planner (APL), or licensed fire sprinkler responsible managing employee (RME) as appropriate and as required by the statutes of the State of Texas.

**Exception:** The fire chief is authorized to waive the submission of construction documents and supporting data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to achieve compliance with this code.

**105.4.1.1 Examination of documents.** The fire chief shall examine or cause to be examined the accompanying construction documents and shall ascertain by such examinations whether the work indicated and described is in accordance with the requirements of this code.

**105.4.2 Information on construction documents.** Construction documents shall be drawn to scale upon suitable material on in a media acceptable to the City of Austin Planning and Development Review Department and the Austin Fire Department. All shop drawings for fire sprinkler and fire alarm systems submitted to the Fire Department shall be accompanied by a completed Fire Department checklist to demonstrate that the applicant has verified the completeness of the submittal. All shop drawings submitted to the Fire Department that are drawn to any scale other than  $\frac{1}{8}"=1'$  or  $\frac{1}{4}"=1'$  shall be assessed the fee set for non-standard drawing scales. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work will conform to the provisions of this code and relevant laws, ordinances, rules and regulations as determined by the fire code official. This section shall become effective at midnight June 30, 2013.

**105.4.4 Approved documents.** Construction documents approved by the fire chief are approved with the intent that such construction documents comply in all respects with this code. The issuance or granting approval of plans and specifications or other construction documents is not an approval of any violation of this code or of any other ordinance of the jurisdiction. An approval presuming to give authority to violate or cancel the provisions of this code is not valid. Review and approval by the fire department shall not relieve the applicant of the responsibility of compliance with this code. The issuance of an approval based on plans, specifications and other data shall not prevent the fire chief from requiring the correction of errors in the plans, specifications or other data, or from preventing processes, building operations or uses being carried on when in violation of this code or any other code of this jurisdiction.

**105.6 Required operational permits.** The fire chief is authorized to issue operational permits for the operations, practices, and functions set forth in the provisions adopted under this section.

**105.6.1**

**105.6.2**

**105.6.3**

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

**105.6.5**

**105.6.6**

**105.6.7**

**105.6.8 See Section 105.6.20.1.4**

**105.6.9**

**105.6.10 See Section 105.6.20.1.4**

**105.6.11**

**105.6.12**

**105.6.13 Exhibits and trade shows.** An operational permit is required to operate exhibits and trade shows.

**105.6.14 Explosives.**

**105.6.14.1 Blasting.** An operational permit is required to use explosives or blasting agents at a named location for a specified period, as reflected below. See also Chapter 33.

1. Class A: 45 days
2. Class B: 120 days
3. Class C: 1 year
4. Class D: 10 days

**105.6.14.2 Explosives or Blasting Agents.** An operational permit is required for the manufacture, storage, handling, sale or use of any quantity of explosives, explosive material, or blasting agents. See also Chapter 33.

**105.6.14.3 Fireworks.** An operational permit is required for the manufacture, storage, handling, sale or use of any quantity fireworks or pyrotechnic special effects within the scope of Chapter 33.

**105.6.15**

**105.6.16 Flammable and combustible liquids.** Permitting of flammable and combustible liquids is governed by section 105.6.20 below.

**105.6.17**

**105.6.18**

**105.6.19**

**105.6.20 Hazardous Materials.**

**105.6.20.1** An operational permit is required to use or possess hazardous materials in a quantity in excess of that named in section 105.6.21.2 below and meeting any one of the following criteria:

**105.6.20.1.1** Materials with a toxicity rating of 2 or more, as defined in Appendix F.

**105.6.20.1.2** Materials with a flammability rating of 2 or more, as defined in Appendix F.

**105.6.20.1.3** Materials with a reactivity rating of 2 or more, as defined in Appendix F.



**105.6.20.1.4** Compressed gases, liquefied compressed gases and cryogenic fluids.

**105.6.20.2** An operational permit is required to use or possess hazardous materials if the aggregate quantity of each material with the same hazard rating, in the same physical state throughout the facility, is equal to or greater than the following:

**MINIMUM AGGREGATE**

<b>Flammability</b>	<b>Rating</b>	<b>Quantity</b>
4	Extreme	0.5 lbs. or 5 Gallons
3	High	12 lbs. or 10 Gallons
2	Moderate	60 lbs. or 120 Gallons
<b>Toxicity</b>	<b>Rating</b>	<b>Quantity</b>
4	Extreme	0.35 oz. or 0.3 fl. oz.
3	High	10 lbs. or 1 gal.
2	Moderate	110 lbs. or 55 gal.
<b>Reactivity</b>	<b>Rating</b>	<b>Quantity</b>
4	Extreme	0.35 oz. or 0.3 fl. oz.
3	High	2.2 lbs or 0.26 gal.
2	Moderate	110 lbs. or 55 gal.
Compressed gases, and liquefied compressed gases		100 Cu. Ft. at NTP
Cryogenic fluids		1 gallon

**105.6.20.3** An operational permit is required to engage in the dispensing of liquid fuels, regardless of hazard classification, from tank vehicles into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments. Dispensing liquid fuels of any kind from tank vehicles into the fuel tanks of motor vehicles is not permitted at residences.

**105.6.20.4** The criteria for the rating of hazardous materials are contained in NFPA Standard No. 704 (See Appendix F). The fire chief shall use NFPA Standard No. 704 in assigning hazard ratings to hazardous materials. If the material is assigned a hazards rating in the NFPA Fire Protection Handbook, these ratings shall be used. Where the ratings are not provided, the fire chief shall use NFPA 704, information contained in Material Safety Data Sheets (MSDS), Appendix E, or other commonly accepted published standards of nationally recognized organizations/authors to classify hazardous materials.

**105.6.20.5** Compressed and liquefied gases and cryogenic fluids will be totaled on a quantitative basis for each hazard class. The materials may be reported in pounds or gallons but shall be calculated in cubic feet by the Fire Department for the purpose of regulation.

**105.6.20.6** The state of a material (liquid, solid, gas) shall be based on its physical state at NTP.

**105.6.20.7** Materials not requiring a permit. The following materials are not subject to the permitting requirements under this Article:

**105.6.20.7.1** Inert gases which do not support combustion including argon, helium, krypton, neon, xenon, compressed air, carbon dioxide, and nitrogen. These gases, with the exception of carbon dioxide, are subject to permitting requirements when stored as cryogenic fluids.

**105.6.20.7.2** Any material used or stored for household purposes at a private residence.

**105.6.20.7.3** Any material contained in a transportation vehicle when the vehicle is not being used for permanent storage.

**105.6.20.7.4** Commercial products used at the facility solely for janitorial purposes and maintenance products which are necessary for the immediate, continued operation of equipment at the facility (not to include fuels), and which are not for resale. This includes air conditioning refrigerant and pool chemicals when maintained in quantities less than the following:

**NFPA 704**

<b>Material</b>	<b>Rating</b>	<b>Quantity</b>
Corrosives (i.e. Muriatic Acid)	3-0-0	4 gallons
Class 2 Oxidizers Trichloro-s-triazinetriene (trichloroisocyanuric acid)	3-0-2	150 pounds
Class 3 Oxidizers Calcium hypochlorite (HTH, Hy-chlor)	3-0-2	110 pounds

Air Conditioning Refrigerant	2-0-0	2-30 pound cylinders
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**105.6.20.7.5** Materials which are held solely as pharmaceutical products which are packaged for distribution to, and use by, the general public, except for those materials with a toxic or flammable hazard rating of 3 or more, and reactive materials with a rating of 2 or more, based on the criteria in the Fire Protection Manual.

**105.6.20.7.6** Any waste material regulated by the State of Texas under Chapter 361, Health and Safety Code; provided, however, that the materials must be listed in the permit application if one is otherwise required, but not considered in setting the amount for permit fee.

**105.6.20.7.7** Radioactive material(s) regulated by the State of Texas under Chapter 401, Health and Safety Code or under Federal regulations must be listed in a permit application, but will not require a permit nor be considered in setting the amount for a permit fee.

**105.6.20.7.8** Any material contained in a process vessel, except where the process vessel is being used for permanent storage.

**105.6.20.7.9** Any material stored in underground tanks complying with the permit requirements of the City of Austin Planning and Development Review Department, or its successor department, and with the reporting requirements of the U.S. Environmental Protection Agency (EPA) Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act (SARA Title III), and if applicable, with the requirements of the Texas Hazard Communication Act.

**105.6.20.7.10** Class II combustible liquids used to fuel emergency generators, located outside of buildings, and in approved tanks or containers less than 275 gallons in size.

**105.6.21 HPM facilities.** HPM facilities, including Group H-5 occupancies are required to obtain a hazardous materials permit in accordance with section 105.6.20.

**105.6.22 High-piled storage.** A triennial operational permit is required to use a building or portion of a building as a high-piled storage area exceeding 500 square feet (46m<sup>2</sup>).

**105.6.23**

**105.6.24**

**105.6.25**

**105.6.26**

**105.6.27 LP-gas. See Section 105.6.20.1.2**

## **105.6.28**

## **105.6.29**

**105.6.30 Open burning.** An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road or other public or private ground. Instructions and stipulations of the permit shall be adhered to. See also Section 307.2.

## **105.6.31**

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

## **105.6.33**

**105.6.34 Places of assembly.** An operational permit or appropriate certificate of occupancy is required to operate a place of assembly.

**105.6.34.1** An annual operational permit is required to operate any place of assembly where 51% or more of the gross receipts at the location are from alcoholic beverage sales.

**105.6.34.2** With concurrence of the Building Official, the fire chief may issue a temporary change of use permit to use a structure for public assembly. Such permits shall be limited as to time of service, but shall not be permitted for more than 30 days. The fire chief is authorized to grant extensions for demonstrated cause.

**105.6.35 Private fire hydrants.** An annual operational permit is required for all properties served by private fire hydrants. Notification of the fire department is required for the removal from service, use or operation of private fire hydrants.

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

## **105.6.37**

## **105.6.38**

## **105.6.39**

## **105.6.40**

## **105.6.41**

## **105.6.42**

**105.6.43 Temporary membrane structures and tents.** An operational permit is required to operate an air-supported temporary membrane structure or a tent having an

area in excess of 100 square feet (9.3 m<sup>2</sup>), or an aggregate area of multiple tents or membrane structures placed side by side in excess of 400 square feet (37m<sup>2</sup>).

**Exceptions:**

1. Tents used exclusively for recreational camping purposes.
2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.
3. Tents that are not attached to, or located within 20 feet (6096 mm) of, a building shall not require a permit unless the tent is in excess of 400 square feet (37 m<sup>2</sup>).
4. Tents open on all sides which comply with all of the following:
  - 4.1 Individual tents having a maximum size of 700 square feet (65 m<sup>2</sup>).
  - 4.2 The aggregate area of multiple tents placed side by side without a firebreak clearance of not less than 12 feet (3658mm) shall not exceed 700 square feet (65 m<sup>2</sup>) total.
  - 4.3 A minimum clearance of 20 feet (6096 mm) to structures and other tents shall be provided.
5. Inflatable playground equipment at one- or two- family residences.
6. Inflatable playground equipment used for less than 24 hours at places of worship or education facilities (for ages served by the 6<sup>th</sup> grade and younger) when located a minimum of 20 feet from the nearest building.

**105.6.44**

**105.6.45**

**105.6.46**

**105.6.47 Fire protection systems permit.** An annual operational permit is required for all fixed fire protection systems in buildings and facilities, including but not limited to fire alarm systems, fire sprinkler systems, commercial kitchen hood suppression systems, and smoke control systems. A single permit shall be issued to each building or facility detailing the types and locations of systems present. Inspections and testing in accordance with the City of Austin Fire Protection Criteria Manual and/or applicable national standards shall be a condition of permit approval. See 105.6.35 concerning permit requirements for private hydrant systems.

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

**105.7.1 No Separate Construction Permits Required.** Construction permits for permanent structures and systems are issued in accordance with the building permit system administered by the Plan Review and Inspections Divisions of the Planning and Development Review Department.

**105.7.2 Temporary membrane structures and tents.** A construction permit is required to erect an air supported temporary membrane structure or tent having an area in excess of 100 square feet (9.3 m<sup>2</sup>) or an aggregate area of multiple tents placed side by side in excess of 400 square feet (37 m<sup>2</sup>).

**Exceptions:**

1. Tents used exclusively for recreational camping purposes.
2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.
3. Tents that are not attached in any way to or within 20 feet (6096 mm) of a building shall not require a permit unless the tent is in excess of 400 square feet (37 m<sup>2</sup>).
4. Tents open on all sides, which comply with all of the following;
  - 4.1 Individual tents having a maximum size of 700 square feet (65 m<sup>2</sup>)
  - 4.2 The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m<sup>2</sup>) total.
  - 4.3 A minimum clearance of 20 feet (3658 mm) to structures and other tents shall be provided.
5. Inflatable playground equipment at one- or two- family residences.
6. Inflatable playground equipment used for less than 24 hours at places of worship or education facilities (for ages served by the 6<sup>th</sup> grade and younger) when located a minimum of 20 feet from the nearest building.

**106.2.3 Reinspections.** When previously identified violations have not been corrected, a fee shall be assessed for a construction related reinspection requested by the applicant or contractor. When a scheduled inspection fails, or is cancelled with less than a 24 hour notice, due to the fact that the applicant or contractor was not capable of or prepared for the inspection to be conducted, a reinspection fee shall be assessed. The reinspection fee shall be in an amount set by a separate ordinance. No subsequent inspections shall be made until the required fees have been paid and required documentation submitted.

**108.1 Appeals.** Appeals shall be handled under the provisions of City Code Chapter 25-1, Article 7, Division 1 (*Appeals*).

**109.3.2 Compliance with orders and notices.** Orders and notices of violation issued or served as provided by this code shall be complied with by the owner, operator, occupant or other person responsible for the condition or violation to which the notice of violation pertains. In cases of immediate danger to persons or property, immediate compliance is required. If the building or other premises is not owner occupied, under lease or otherwise, and the order or notice requires additions or changes in the building or premises which would immediately become fixtures and be the property of the owner of the building or premises, such orders or notices shall be complied with by the owner.

**Exception:** When the owner and the occupant have agreed otherwise between themselves, in which event the occupant shall comply.

**109.3.3 Prosecution of violations.** If the notice of violation is not complied with promptly, the fire chief is authorized to request the legal counsel of the City to institute the appropriate legal proceedings at law or in equity to restrain, correct or abate such violation or to require removal or termination of the unlawful occupancy of the structure in violation of the provisions of this code or of the order or direction made pursuant hereto.

**109.3.3.1 Citations.** Persons operating or maintaining an occupancy, premises or vehicle subject to this code who allow a hazard to exist or fail to take immediate action to abate a hazard on such occupancy, premises or vehicle when ordered or notified to do so by the chief shall be guilty of a misdemeanor.

**109.3.4 Unauthorized tampering.** Signs, notices, orders, tags or seals posted or affixed by the fire chief shall not be mutilated, destroyed or tampered with or removed without authorization from the fire chief.

## **Section 113 FEES**

**[A] 113.1 Fees.** A permit shall not be issued until the fees have been paid.

**[A] 113.2 Schedule of fees.** A fee for each permit or service shall be paid as required, in accordance with the schedule as established by the City of Austin fiscal year fee ordinance.

**[A] 113.3 Work commencing before permit issuance.** Any person who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall be subject to a notice of violation and to prosecution as provided in section 109.3 of this code. Any penalties assessed due to prosecution under this code shall be in addition to the required permit or service fees.

**[A] 113.4 Related fees.** The payment of the fee for the construction, *alteration*,

removal or demolition of work done in connection to or concurrently with the work or activity authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

**[A] 113.5 Refunds.** The refund policy of the City of Austin and the Austin Fire Department shall be applicable to the over payment of any fees associated with the administration of this code.

**202.1 Supplemental and replacement definitions.** The following definitions in this subsection apply throughout this code and supplement the definitions in Section 202 (*General Definitions*) of the 2012 International Fire Code, as published.

**ACCESS ROADWAY** is any road(s) providing access around the perimeter of any building, to a building from a public street, or to a building or its fire department connection from a required fire hydrant.

**ALL WEATHER DRIVING SURFACE:** Hot mix asphaltic concrete or concrete pavement as per City of Austin Standard Specifications or other alternative roadway methods approved by the fire code official.

**APPLICABLE STANDARDS.** The published standards or codes of nationally recognized organizations shall be applied to hazardous materials occupancies to the extent that the standards or codes are set forth in this code or in the Fire Protection Criteria Manual and are expressly applicable to a particular business or industry and to industrial practices that are generally accepted by businesses within a particular industrial group or subgroup, provided that such industrial practices are not inconsistent with federal and state law. However, on written request of an applicant or permit holder, alternative specifications and guidelines may be substituted for the Applicable Standards in specific situations by the fire code official where the permit applicant or holder provides suitable evidence that the proposed alternatives will meet or exceed the requirements of this Article.

**AUTOMOBILE WRECKING YARD** is an area that stores salvage vehicles.

**[B] BALCONY, EXTERIOR.** An exterior floor projected from and supported by a structure without additional independent supports.

**[B] BED AND BREAKFAST.** A private residence having a limited number of sleeping rooms which are available for transient guests who have paid for accommodations. For the different classifications of Bed and Breakfast, refer to LDC 25-2-781 (*Bed and Breakfast Residential Use Structures Classified*).

**BLASTER'S LICENSE:** An instrument issued by the fire chief authorizing certain individuals to engage in the loading, firing and supervision of the loading or firing, of explosive materials in accordance with applicable ordinances, resolutions, and regulations of the City of Austin.



**CERTIFICATION:** A record of the test, including problems found and corrections made, documenting the actions on approved forms.

**CITY/AUSTIN/CITY OF AUSTIN:** These terms mean the City of Austin, in the Hays, Travis and Williamson Counties the State of Texas. Geographically these terms indicate all territory within the corporate limits of the City of Austin and that territory annexed for limited purpose by the City of Austin in accordance with Article I, Section 7 of the Charter of the City of Austin.

**[M] COMMERCIAL COOKING APPLIANCES.** Appliances used in a commercial food service establishment for heating or cooking food and which produce grease vapors, steam, fumes, smoke or odors that are required to be removed through a local exhaust ventilation system. Such appliances include deep fat fryers; upright broilers; griddles; broilers; steam-jacketed kettles; hot-top ranges; under-fired broilers (charbroilers); ovens; barbecues; rotisseries; and similar appliances. For the purpose of this definition, a food service establishment shall include any building or a portion thereof used for the preparation and serving of food for more than 6 hours per week, including food services within a residential board and care facility if the facility serves 12 or more residents.

#### **DAY CARE FACILITIES.**

**[B] GROUP E, DAY CARE FACILITIES.** This group includes buildings and structures or portions thereof occupied by more than six children older than 2 ½ years of age who receive educational, supervision or personal care services for fewer than 24 hours per day. A child care facility that provides care for more than six but no more than 100 children 2 ½ years or less of age, where the rooms in which the children are cared for are located on a level of exit discharge serving such rooms and each of these child care rooms has an exit door directly to the exterior, shall also be classified as Group E.

**[B]Six or fewer children.** A facility having six or fewer children receiving such day care shall be classified as part of the primary occupancy.

**[B]Six or fewer children in a dwelling unit.** A facility such as the above within a dwelling unit and having six or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 (*NFPA 13D sprinkler systems*) or with Section P2904 of the 2012 International Residential Code as published.

**[B]Six or fewer persons receiving care.** A facility having six or fewer persons receiving custodial care shall be classified as part of the primary occupancy.

**[B]Six or fewer persons receiving care in a dwelling unit.** A facility such as the above within a dwelling unit and having five six or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the International Residential

Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 (*NFPA 13D sprinkler systems*) or with Section P2904 of the 2012 International Residential Code as published.

**[B]Six or fewer persons receiving care.** A facility such as above with six or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the International Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 (*NFPA 13D sprinkler systems*) or with Section P2904 of the 2012 International Residential Code as published.

**[B]Seven to 16 persons receiving care.** A facility such as the above, housing not fewer than seven and not more than 16 persons receiving such care, shall be classified as Group R-4.

**[B]Institutional Group I-2.** This occupancy shall include buildings and structures used for *medical care* on a 24-hour basis for more than five six persons who are *incapable of self-preservation*. This group shall include, but not be limited to, the following:

*Child care facilities*

*Detoxification facilities*

*Hospitals*

*Nursing homes*

*Psychiatric hospitals*

**[B]Institutional Group I-4, day care facilities.** This group shall include buildings and structures not classified above which are occupied by more than six persons of any age who receive custodial care for fewer than 24 hours per day by persons other than parents or guardians, relative by blood, marriage or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

Adult day care

Child day care

**EXISTING.** Buildings, facilities or conditions that are already in existence, constructed or officially authorized prior to the adoption of this code.

**EXTENSION CORD AND FLEXIBLE CORD:** Flexible cord of any length which has one male electrical connector on one end and one or more female electrical connectors on the other end.

**FIRE APPARATUS ACCESS ROAD.** A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of

all other terms such as fire lane, fire zone, public street, private street, parking lot lane and access roadway.

**FIRE COMMAND CENTER.** The principal attended or unattended location where the status of the detection, alarm communications and control systems is displayed, and from which the system(s) can be manually controlled.

**FIRE DEPARTMENT MASTER KEY.** A limited issue key of special or controlled design to be carried by fire department officials in command which will open key boxes on specified properties.

**FIRE LANE AND FIRE ZONE.** A road, an off-street area, or other passageway developed to allow the passage of fire apparatus that is designated in accordance with this code that is to remain free and clear of parked or standing vehicles in order to provide access to buildings, processes, storage areas or fire appliances in case of fire or other emergency. A fire lane is not necessarily intended to be used by vehicular traffic other than fire apparatus.

**KEY BOX AND KNOX BOX.** A secure device with a lock operable only by a fire department master key, and containing building entry keys and other keys that may be required for access in an emergency.

**GROUP I-1.** This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Convalescent facilities
- Group homes
- Half-way houses
- Residential board and care facilities
- Social rehabilitation facilities

A facility such as the above with five or fewer persons shall be classified as Group R-3 in accordance with this code. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

**[B] Institutional Group I-2.** This occupancy shall include buildings and structures used for *medical care* on a 24-hour basis for more than five six persons who are *incapable of self-preservation*. This group shall include, but not be limited to, the following:

*Child care facilities*

*Detoxification facilities*

*Hospitals*

*Nursing homes*

*Psychiatric hospitals*

**I-2 with six or fewer persons receiving care.** A facility such as the above with six or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 (*NFPA 13D sprinkler systems*) or with Section P2904 of the 2012 *International Residential Code* as published.

#### **INDEPENDENT EXIT/INDEPENDENT STAIRWAY/INDEPENDENT EXIT**

**RAMP:** An independent exit, independent stairway, or independent exit ramp is an exit or egress component that does not require the occupant to travel within 10 feet (3.048 m) of another apartment's door or window at any point in the path of egress.

**LEGITIMATE COOKING FIRE:** A fire kindled within the confines of an appliance or structure manufactured or built for the express purpose of cooking meals for consumption by human. Incidental cooking or warming of foods with an open recreational fire shall not be considered a "legitimate cooking fire".

**LEGITIMATE WARMING FIRE:** A fire kindled within the confines of a metal or other non-combustible container at a construction site or other similar outdoor employment location for the sole purpose of allowing employees/workers to warm themselves without having to leave the workplace or construction site.

**MOTOR VEHICLE FLUIDS** are liquids which are flammable, combustible or hazardous materials, such as crankcase fluids, fuel, brake fluids, transmission fluids, radiator fluids and gear oil. This definition does not include liquids which are permanently sealed, such as hydraulic fluid within shock absorbers.

**OVERCROWDING.** A condition that exists when either there are more people in a building, structure or portion thereof than have been authorized or posted by the fire chief or the building official, or when the fire chief determines that a threat exists to the safety of the occupants due to persons sitting and/or standing in locations that may obstruct or impede the use of aisles, passages, corridors, stairways, exits or other components of the means of egress.

**PERMANENT STORAGE.** Storage for a period of over 30 days.

**PERMIT.** A permit issued under this Article, including the permit application, and any amendment for other uses of this term and other types of permits, see Section 105 of this code.

**PROCESS VESSEL.** A container, including the associated piping, used or designed to be used to contain or promote a chemical or physical reaction

**Residential Group R.** Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the International Residential Code in accordance with Section 101.2 (Scope). Residential occupancies shall include the following:

**[B] R-1** Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

- Boarding houses (transient)

- Hotels (transient)

- Motels (transient)

- Bed and Breakfasts

Congregate living facilities (transient) with 10 or fewer occupants are permitted as an alternate method of compliance to comply with the construction requirements for Group R-3 including Section 903.2.8 (Group R).

**[B]R-2** Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

- Apartment houses

- Boarding houses (non-transient)

- Convents

- Dormitories

- Fraternities and sororities

- Hotels (non-transient)

- Live/work units

- Monasteries

- Motels (non-transient)

- Vacation timeshare properties

Congregate living facilities with 16 or fewer occupants are permitted as an alternate method of compliance to comply with the construction requirements for Group R-3 including Section 903.2.8 (Group R).

**[B]R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

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 that are within a single-family home are permitted as an alternate method of compliance to comply with the International Residential Code provided the building is protected by an automatic sprinkler system in accordance with Section 903.2.8 (Group R).

**Exception:** Compliance with Section 903.2.8 (Group R) is not required for adult care and child care facilities that are within the proprietor's single-family home provided that the home was constructed and occupied as a residence prior to October 1<sup>st</sup>, 2010.

**[B]R-4** Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code, or, as an alternate method of compliance, shall comply with the International Residential Code provided the building is protected by an automatic sprinkler system installed in accordance with 903.2.8 (Group R).

**SALVAGE VEHICLE:** A vehicle which is dismantled for parts or awaiting destruction.

**STAIR.** A change in elevation, consisting of two or more risers.

**STAIRWAY EXTERIOR.** A stairway that is open on at least two adjacent sides with 75% of the side with free area, except for required structural columns, beams, handrails and guards. The adjoining areas shall be either yards, courts or public ways. The other sides of the exterior stairway need not be open.

**TESTS:** A complete check of the system under nationally recognized standards to determine that the system operates and functions as designed.

## **302.2 Supplemental definitions.**

The following definitions are defined in section 202 as amended and apply throughout this code, and amend or supplement the definitions in the 2012 International Fire Code as published.

### **LEGITIMATE COOKING FIRE.**

### **LEGITIMATE WARMING FIRE.**

**304.3.3 Capacity exceeding 1.5 cubic yards.** Dumpsters and containers with an individual capacity of 1.5 cubic yards [40.5 cubic feet (1.15 m<sup>3</sup>)] or more shall not be stored in buildings or placed within 10 feet (3048 mm) of combustible walls, openings or combustible roof eave lines.

#### **Exceptions:**

1. Dumpsters or containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Storage in a structure shall not be prohibited where the structure is of Type I or Type IIA construction, located not less than 10 feet (3048 mm) from other buildings and used exclusively for dumpster or container storage.

**307.2 Permit required.** A permit shall be obtained from the fire department emergency prevention division in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, a warming fire, a rubbish fire, or a bonfire. Application for such approval shall only be presented by, and permits issued to, the owner of the land upon which the fire is to be kindled. Rubbish includes waste material from the construction or demolition of buildings. For additional requirements concerning trench burning, see Section 308.5. For mobile incinerators, see Section 308.6. For agricultural burning see Section 308.7.

**Exception:** A permit is not required for legitimate cooking fires or legitimate warming fires as defined in this chapter.

**307.4 Location.** When authorized by permits in accordance with section 307.2, the location for open burning shall not be less than 50 feet (15,240 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 50 feet (15 240 mm) of any structure. Such fires shall be constantly attended by a competent person with an approved means to extinguish the fire.

#### **Exceptions:**

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

2. Operation of a trench burner shall be in accordance with Section 308.5.
3. Operation of a mobile incinerator shall be in accordance with Section 308.6
4. Open burning for agricultural purposes may be approved by the fire chief in accordance with Section 308.7.

**308.1.4 Residential Barbecue Pits and Incinerators.** No person may construct, erect, install, maintain or use any incinerator or barbecue pit or burn any combustible material to constitute a fire hazard by the use or burning or to endanger the life or property of any person. Residential barbecue pits, hibachis or other cooking appliances utilizing charcoal, wood or gas as a fuel may not be stored or used on any balconies of residential occupancies, on other combustible balconies, within five feet measured horizontally from any portion of a combustible building, or within fifteen feet measured along the shortest distance if the pit is located below any portion of a combustible building.

**Exception:** Detached one- and two-family dwellings.

### **308.5 Trench Burners.**

In addition to the provisions of Section 307 of the International Fire Code, all trench burners in the City shall comply with the following:

**308.5.1 Construction.** The trench burner shall be located at the center of a circle three hundred feet in diameter, in which no combustible matter will be located or stored, except for the pile of combustible debris which has been readied for loading into the trench burner pit, except as otherwise provided by law.

1. Pertaining to trees, landscaping, erosion, drainage, or run-off control the surface of the land within the circle shall be cleared of any high grasses, and any trees, brush, and weeds.
2. The pit must be built in the ground and not above grade.
3. The dimensions of the pit shall be 14 feet wide, 40 feet long, and at least 10 feet deep, except in cases where a permit issued to the applicant by the Texas Commission on Environmental Quality prescribes different dimensions. The ash generated by the operation of the trench burner shall be removed from the trench as necessary to maintain a minimum trench depth of 10 feet.
4. The pit, air blower or fan, and other operating equipment shall be securely enclosed by a locked gate and security fence of a minimum height of eight feet which completely surrounds the pit and equipment at all times when the trench burner is unattended. The top portions of the fence shall consist of at least three runs of barbed wire. The fencing shall not be removed until the pit is closed and filled. An approved Fire Department key lock shall be required to secure the gate.



**308.5.2 Location.** A trench burner must not be located within 1320 feet of any recreational area, building or structure, not occupied or used solely by the owner of the property on which the trench burner is constructed.

**308.5.3 Hours of Operation.** The hours of continuous loading operation shall be between 8:00 a.m. and 4:00 p.m., Monday through Friday. Trench burners may not be operated on Saturday, Sunday, or legal holidays.

1. The blower or fan will be allowed to operate an additional two hours from 4:00 p.m. to 6:00 p.m. to ensure cool down after its period of continuous loading operations.
2. The hours of operation may be changed by the fire chief when unusual atmospheric conditions exist.
3. No burning is permitted when air stagnation advisories are in effect for the area in which the mobile incinerator is located.
4. No burning is permitted during periods of high fire hazard weather conditions.

**308.5.4 Method of Operation.** Material to be burned is limited to trees, brush, untreated waste lumber, shrubs, roots, bushes, and all untreated wood waste cleared from the site described in the permit application. Combustible debris cleared from other sites may not be burned in the trench burner.

1. All other materials, including but not limited to paper, roofing, shingles, insulation, wiring, treated wood products, metal products, chemicals, plastics, tires and other real or synthetic rubber materials may not be burned in the pit. Flammable or combustible liquids may not be burned except for ignition purposes.
2. Suitable fire protection shall be present on the site where the trench burner is located during operation. Suitable fire protection consists of a trailer or tank truck fitted with a water tank capable of transporting a 500 gallon water supply to any location on the job site and an approved water delivery system consisting of a pump, at least 100 feet of rubber booster hose having a minimum diameter of three-fourths inch, and either a straight stream or adjustable spray nozzle.
3. The pit must be closed and filled with dirt within 48 hours after the trench burner operations are discontinued.
4. Combustible material may not be placed in the trench any higher than three feet below the surface level.
5. Every trench burner must be attended when in operation. The trench burner shall be completely extinguished before being left unattended.

**308.5.5 Permit Application.** The permit application must contain the following:

1. The name, address, and phone number of the individual or entity that owns the trench burner unit.
2. The name, address, and phone number of the individual or entity responsible for the operation of the trench burner unit.
3. A description of the site to be cleared, and the name, address and telephone number of owner of the property.
4. An operating schedule including initial date of operation and expected number of weeks of operation.
5. A copy of the Texas Commission on Environmental Quality permit issued for the construction of the unit, if a permit is required.
6. A statement from the applicant confirming the applicant will inform the Drainage Utility Department, or its successor department, of the dates the trench burner will be operating.
7. A description of the type and quantity of petroleum product utilized to ignite the trench burner. If this is to be stored at the site, then the manner of storage and quantity to be stored must be described. The method of igniting the trench burner must be described.
8. Proof that the applicant has current liability insurance in the amount of \$1,000,000 for personal injuries, and \$500,000 for property damage any time the trench burner is in use.
9. The payment of the permit fee as established by the City Council.
10. Certification from the Planning and Development Review Department, or its successor department, as required by Article 308.5.6 of this code.
11. A construction permit from the Texas Natural Resource Conservation Commission must be obtained if required by Commission rule. If the trench burner is exempt from the Commission permit requirements all conditions of the exemption must be complied with.

**308.5.6 Environmental Protection.** The Planning and Development Review Department, or its successor department, shall require the following before the issuance of certification:

1. The bottom of the trench is located at a minimum distance of 50 feet from the water table;
2. No fissures are located inside or adjacent to the trench;

3. Ignition fuel shall be limited to combustible liquids, as defined by this code. Approval shall also be granted where an alternative to the use of combustible liquids is used to ignite the trench;
4. The method of igniting the trench ensures no amount of combustible liquid greater than necessary to ignite the trench will be used; and,
5. The manner of storage of the product at the site is designed to prevent any leak or accidental discharge, and where applicable, the hazardous materials storage and registration requirements are met.
6. An environmental review shall be conducted of the watershed of Lake Austin, Lake Travis, or with the aquifer-related watershed of Barton, Williamson, Slaughter, Big Bear, Little Bear and Onion Creek, including the Edwards Aquifer recharge zone North and South of the Colorado River, all as shown on the hazardous materials storage and registration map on file in the offices of the City Clerk.

**308.6 Mobile Incinerators.** All mobile incinerators in the City must comply with the following:

**308.6.1 Construction.** Each mobile incinerator must be constructed as follows:

1. Engineered and constructed of material and of a gauge to withstand normal operating temperature of 1200° F or higher without deformation.
2. Chimneys serving mobile incinerators must terminate into a spark arrester having an area not less than four times the net free area of the chimney. Openings shall not permit the passage of spheres having a diameter larger than ½ inch nor block the passage of spheres having a diameter smaller than 3/8 inch.
3. The exterior wall of the mobile incinerator must be of double wall construction. The incinerator must be designed that the temperature rise above ambient temperature (750° F + 5° F) of any portion of the incinerator accessible to the operator shall not exceed 150° 4. Insulation must be installed or adequate airspace provided between the external casing and the inner wall as required to meet this temperature limitation.
4. Mobile incinerators must be constructed with a dual combustion chamber of which the secondary chamber must maintain a temperature of 1200° F or higher at all times waste material is being reduced by oxidation caused by heat of combustion.
5. The secondary chamber must be provided with a thermocouple connected to a temperature display for monitoring the temperature.

6. Any design not in compliance with the criteria and appropriate nationally recognized standards must have the construction reviewed and submitted as an alternative method under the seal of a registered professional engineer or a recognized testing laboratory.

**308.6.2 Location.** No mobile incinerator may be located:

1. Within 10 feet of any property line, and a minimum of 10 feet must be maintained between any incinerator and rubbish, dry grass, weeds, vegetation and other combustible materials.
2. Within 300 feet of any recreational area, residence or structure not occupied or used solely by the owner of the mobile incinerator or the owner of the property on which the mobile incinerator is used.

**308.6.3 Hours of Operation.** The hours of continuous loading operation shall be between 8:00 a.m. and 4:00 p.m., Monday through Friday.

1. Mobile incinerators may not be operated on Saturday, Sunday or legal holidays. The mobile incinerator may be allowed to operate an additional two hours from 4:00 p.m. to 6:00 p.m. to ensure cool down after its period of continuous loading operations.
2. The fire chief may change the hours of operation when unusual atmospheric conditions exist.
3. No burning is permitted during air stagnation advisories in effect in the area in which the mobile incinerator is located.
4. No burning is permitted during periods of high fire hazard weather conditions.

**308.6.4 Method of Operation.** Material to be burned in the mobile incinerator is limited to highly combustible waste, paper, wood, cardboard cartons, including up to 10 percent treated papers or plastic scraps.

1. Suitable fire protection must be present within a distance of 20 feet at all times of operation. Suitable fire protection consists of an approved water extinguisher having a minimum rating of 10-A, and one dry chemical portable fire extinguisher with at least a 2A-10BC rating.
2. Material to be incinerated may not be stored within 10 linear feet of any surface of the mobile incinerator's combustion chamber, chimney or hot ashes.
3. The mobile incinerator must be enclosed by a portable security fence of a minimum of four feet, or other equivalent approved barrier, which completely surrounds the mobile incinerator providing a clear space of five

feet at all times when the unit is in operation. The fencing may not be removed until the incinerator is cool to the touch.

4. The mobile incinerator must not be moving and must be in a fixed position when operational or cooling.
5. Every mobile incinerator must be attended when in operation. It shall be completely extinguished before being left unattended.

**308.6.5 Permit Application.** The permit application must contain the following:

1. Name, address, and phone number of the individual or entity that owns the mobile incinerator.
2. Name, address, and phone number of the individual or entity responsible for the operation of the mobile incinerator.
3. Name, address, and phone number of the owner of the property where the mobile incinerator is to be operated.
4. Copy of the Texas Commission on Environmental Quality permit or exemption letter issued for the use of the unit. (See Chapter 382, Health and Safety Code).
5. Proof that the applicant has in effect liability insurance in the amount of \$1,000,000 for personal injuries, and \$500,000 for property damage any time the mobile incinerator is in use.
6. Written permissions of the owner of the property where the mobile incinerator is to be operated.
7. Certification from the Planning and Development Review Department, or its successor department, as required by Article 308.6.6 of this code.
8. The payment of the permit fee as established by City Council.

**308.6.6 Environmental Protection.** The Planning and Development Review Department, or its successor department, shall require the following before the issuance of certification:

1. A statement that the applicant will not deposit or discharge any waste in a manner that is in conflict with Section 4-1-76 of the Code of the City of Austin.
2. A description of the plan for storage and disposal of combustion residue.

**308.7 Agricultural Burning.**

In addition to the provisions of section 307 of the International Fire, all agricultural burning in the City shall comply with the following:

**308.7.1 Location.** The location of any agricultural burning activity shall be limited to property zoned AG consisting of at least 150 contiguous acres. The burn site shall be located at least 50 feet from the nearest property line or agricultural structure and shall be at least 1320 feet from the nearest recreational property (i.e. park), building or structure not owned, and occupied or used solely by the owner of the agricultural property.

**308.7.2 Environmental conditions.** The permit holder shall comply with applicable air quality regulations of the Texas Commission on Environmental Quality (TCEQ) including time limits and atmospheric conditions. Burning shall not be permitted during atmospheric inversions or other conditions that limit dispersion of the smoke plume.

**308.7.3 Burning bans.** Burning shall not be permitted during any weather related burn bans.

**308.7.4 Fuel limitations.** Material to be burned is limited to trees, brush, untreated waste lumber, shrubs, roots, bushes, and all untreated wood waste associated with the agricultural property for which the burn permit is issued. Distilled hydrocarbons including liquid fuels, lubricants, synthetic materials, tires, rubber, and plastics shall not be burned under an agricultural burn permit.

**Exception:** A limited quantity of liquid hydrocarbon fuel may be burned for the sole purpose of initial ignition of organic waste materials.

**308.7.5 Insurance.** Proof shall be provided at permit application that the applicant has current liability insurance in the amount of \$1,000,000 for personal injuries, and \$500,000 for property damage any time agricultural burning is in progress.

**311.5 Placards.** Any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards shall be marked as required by the City of Austin Code Compliance Division.

**311.6 Placards for hazards related to emergency response.** Any building or structure that is determined to present unique hazards to firefighters during emergency operations shall be protected or marked as required by Section 505.3 of this code.

**316.7 Unprotected Construction Presenting Hazards To Firefighters.** Structures, regardless of occupancy, employing construction methods or materials that have been shown by experience or testing to be associated with early failure or failure with little or no warning under fire exposure shall be identified as potentially hazardous to responding firefighters by the premises identification in accordance with Section 505.3.

**Exceptions:**

1. Buildings protected throughout by automatic fire sprinklers in accordance with Sections 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Buildings with a noncombustible or limited combustible membrane that shields the floor or roof construction materials from fire exposure. Such

membranes may be constructed using gypsum wallboard of at least ½” nominal thickness, cementous fiberboard of at least ¼” nominal thickness, or fire retardant treated wood (FRTW) of at least ½” nominal thickness.

**316.7.1 Unprotected Construction Presenting Hazards To Firefighters in Existing Buildings.** When existing buildings, including residential structures, are identified as employing construction methods or materials that have been shown by experience or testing to be associated with early failure or failure with little or no warning under fire exposure, the premises identification markings shall be revised to achieve compliance with section 505.3

**Exceptions:**

1. Buildings protected throughout by automatic fire sprinklers in accordance with 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Buildings with a noncombustible or limited combustible membrane that shields the floor or roof construction materials from fire exposure. Such membranes may be constructed using gypsum wallboard of at least ½” nominal thickness, cementous fiberboard of at least ¼” nominal thickness, or fire retardant treated wood (FRTW) of at least ½” nominal thickness.

**401.3 Emergency responder notification.** Notification of emergency responders shall be in accordance with Sections 401.3.1 through 401.3.3.

**401.3.1 Emergency events.** Except as provided in Section 401.3.4, in the event an unwanted fire occurs on, or upon the discovery of a fire, explosion, deflagration, smoke or unauthorized release of flammable, toxic, or hazardous materials any property, the owner or occupant shall immediately report such condition to the fire department. Building employees and tenants shall implement the appropriate emergency plans and procedures.

**401.3.2 Alarm activations.** Upon activation of a fire alarm signal, employees or staff shall immediately notify the fire department.

**401.3.3 Delayed notification.** A person shall not, by verbal or written directive, require any delay in the reporting of a fire or unauthorized chemical release to the fire department.

**401.3.4 Emergency Response Teams and Fire Brigades.** Facilities complying with Section 5003.9.1 by maintaining on-site emergency response teams (ERT) or industrial fire brigades that comply with the requirements of Occupational Safety and Health Administration (OSHA) regulations in 29 CFR 1910.120 or 29 CFR 1910 Subpart L may, on completion of an audit (audits may be performed during annual inspections by the Fire Department) of compliance by the fire chief and contingent on continued ERT/fire brigade compliance, develop site-specific procedures for determining reporting requirements based on facility staffing and qualifications.

**401.3.4.1** Guidance is published in the Fire Protection Criteria Manual to help assure equitable assessment of site procedures. The procedures must be submitted to the fire chief for review and approval. Maintenance of the ERT or fire brigade shall be verified by a periodic audit during inspections by the Fire Department. This provision does not waive a facility's or organization's reporting obligations under State or Federal regulations.

**401.3.4.2** Failure to maintain and provide records of internal responses will result in revocation of the facility's procedural approach to reporting.

**403.4 Ticket Sales.** Advanced ticket sales shall not exceed 110% of the maximum occupant load.

**408.12 High-Rise Buildings.** All buildings that have occupied floors located more than 75' (22 860 mm) above the lowest level of fire department vehicle access shall have at least 1 Automated External Defibrillator (AED) located on each occupied level.

**Exception:** The provisions of this section shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412 of the 2012 International Building Code.
2. Open parking garages in accordance with Section 406.5 of the 2012 International Building Code.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.6 of the 2012 International Building Code.
4. Low-hazard special industrial occupancies in accordance with Section 306.3 of the 2012 International Building Code.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the 2012 International Building Code.

**408.12.1 Type.** All AEDs used in high-rise buildings must be of the type approved by the United States Food and Drug Administration (FDA).

**408.12.2 Accessibility.** All AEDs must be available for public use.

1. All AEDs shall be located in the elevator lobby unless otherwise approved by the fire chief.
2. Standard industry accepted signs shall mark the location of each AED.

**408.12.3 Maintenance.** All AEDs shall be maintained and tested according to manufacturer recommendations.

1. Maintenance records shall be kept for a period of 1 year.



2. Disposable supplies (Defibrillation pads) shall be replaced upon their expiration date or following use.

**408.12.4 Medical Direction.** A licensed physician shall be involved to ensure compliance with the requirements of the Health and Safety Code, chapter 799, Automated External Defibrillators.

**408.12.5 Training.** The person or entity that acquires an AED shall ensure that users are trained in cardiopulmonary resuscitation (CPR) and use of the automated external defibrillator (AED) in a course approved by the Texas Department of State Health Services.

**408.12.6 Notifying Emergency Medical Services Providers.** Upon acquisition of an AED, the person or entity shall notify the Fire Department AED Coordinator of the existence, location and type of AED.

**502.2 Supplemental Definitions.** The following definitions are defined in section 202.1 as amended and apply throughout this code and amend or supplement the definitions in the 2012 International Fire Code as published.

**ACCESS ROADWAY**

**ALL WEATHER DRIVING SURFACE**

**FIRE APPARATUS ACCESS ROAD**

**FIRE COMMAND CENTER**

**FIRE DEPARTMENT MASTER KEY**

**FIRE LANE AND FIRE ZONE**

**KEY BOX AND KNOX BOX**

**503.1 Where required.** Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.9.

**503.1.4 Approval of Fire Zones on Site Plans.** The Director of the Planning and Development Review Department, or its successor department, shall submit plat plans of proposed commercial developments to the fire chief for his review and approval of the adequacy of fire zones before the issuance of a building permit for the development.

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 25 feet (7620 mm), except for approved security gates in accordance with Section 503.6 and the Fire Protection Criteria Manual, and an unobstructed vertical clearance of not less than 14 feet (4267 mm).

**Exceptions:**

1. The unobstructed roadway width may be reduced to less than 25 feet for all or part of the required roadway so long as the access road complies with the appropriate minimum street width for dedicated City streets, and
  - a. Such fire access roadways, or portions of such roadways, which are less than 25 feet wide are not in locations where aerial apparatus deployment could be necessary to achieve control and/or extinguishment of a fire, and
  - b. Turning radii are adequate for maneuvering fire department and other emergency services vehicles.
2. The unobstructed roadway width may be reduced to less than 25 feet for all or part of the required roadway so long as the access road complies with the appropriate minimum street width for dedicated City streets and
  - a. The access roadway is part of a system of roadways or driveways that include interconnected public and/or private roads or driveways that provide multiple pathways for emergency vehicles to access the structures served by the roadway system, provided that a fire vehicle blocking the roadway within the narrowed length will not create a dead-end road segment in excess of 150 feet long.
  - b. The width of each segment is sufficiently wide to accommodate the deployment of emergency vehicles anticipated for that segment during a potential emergency (e.g. outrigger placement and aerial operations for fires in multi-story structures), and turning radii are adequate for maneuvering fire department and other emergency services vehicles.
  - c. Divided roadways serving as fire lanes are allowed to consist of two (2) lanes each 15 feet wide, one on each side of the division in locations where aerial operations are not anticipated.

**503.2.2 Authority.** The fire chief shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations or to permit a decrease in width when necessary to meet the public safety objectives of the City of Austin provided the street or access roadway remains compliant with 503.2.1.

**503.2.4 Turning radius.** The required inside turning radius of a fire apparatus access road shall be 25 feet (7.62 m). The required outside turning radius of a fire apparatus access road shall be 50 feet (15.24 m).

**503.3 Designation, Location, and Maintenance of Fire Zones Official Records.** All fire apparatus access roads required by Sections 503.1.1 and 2306.6, and that are out of the public right-of-way, are designated as fire zones or fire lanes, to maintain the required unobstructed clearance in accordance with Section 503.2.1 above.

**Exception:** Fire apparatus access roads between aisles of parking or under porte cocheres, not providing direct access to fire appliances, need not be designated as fire zones.

**503.3.1** All fire zones and fire lanes shall be designated as tow away zones. The designation of the fire zones or fire lanes does not make the City responsible for the maintenance of the fire zones or fire lanes on private property, but the owner of the property continues to be responsible for the maintenance of the area. The Fire Department shall keep a record of the designation and location of fire zones and fire lanes.

**503.3.2** Signs and Identification Markers Designating Fire Zones/Fire Lanes. After designation of a fire zone or fire lane under this article, the fire chief shall give notice of the designation to the owner of the property, directing the owner to cause, at the expense of the owner, markings to be painted on any areas designated as a fire zone or fire lane. The markings must be red with white stenciling reading "FIRE ZONE/TOW AWAY ZONE" or "FIRE LANE/TOW AWAY ZONE" in lettering at least three inches in height. The stenciling shall be at intervals of 35 feet or less. In addition, the owner shall cause signs to be posted at both ends of a fire zone or fire lane and at each entry and exit point which constitutes a portion of the fire zone or fire lane. Alternative marking of fire zones and fire lanes may be approved by the fire chief provided fire zones or fire lanes are clearly identified at both ends and at intervals not to exceed 35 feet and are clearly marked "Tow Away Zones" at least every 35 feet. The signs shall be installed with the top of the sign no higher than eight feet above grade and no less than five feet above grade.

**503.7 Persons authorized to issue citations.**

A citation for a charge of parking, standing, or stopping in a fire zone or fire lane in violation of this article may be issued by a licensed peace officer employed by the City of Austin, an employee of the Fire Department designated by the Fire Chief, an employee of the City authorized to issue tickets for parking violations by the City Code, the property owner or the owners authorized representative, or a private security guard employed by an agency operating under either a license or a letter of authority issued by the Texas Board of Private Investigators and Private Security Agencies, and who is employed by the owner or lessee of the property on which a fire zone has been established.

**503.4.1. Traffic calming devices.** Geometric street features intended to mitigate unsafe traffic conditions such as speeding or excessive cut-through traffic shall be designed to address both traffic safety and emergency access requirements. Approved street features shall mitigate the traffic conditions identified by the city traffic engineer while providing for adequate emergency vehicle access to the satisfaction of the Austin Fire Department.

**505.3 Premise Hazard Identification Signs.** Structures that the fire chief deems to have the potential to present an unusual level of hazard to firefighters during fire ground

operations shall be identified such that it is readily identifiable to responding fire department personnel. Such structures may or may not present obvious dangers to the occupants of the building when no fire is present. Potentially hazardous structures may be identified as prescribed by this code, by the building code, or by fire department safety policies and procedures.

**505.3.1 Hazardous Address Numbering.** Structures that are required to be readily identifiable by responding fire department personnel shall have unique address numbering signs. The signs shall be installed on all sides of the building facing emergency vehicle access established in accordance with section 503 or facing an approach directly from public rights-of-way. Signs will consist of the address numbers of the building in 4-inch tall white numbers on a solid red background. The address numbers will be oriented vertically. The signage will be reflective to be visible at night, weather resistant and permanent.

**507.3 Fire flow.** Fire flow requirements for buildings or portions of buildings and facilities shall be determine in accordance with IFC Appendix B as amended.

**507.4 Water supply test.** The fire department, emergency prevention division shall be notified prior to the water supply test. Water supply tests shall be conducted by or witnessed by the fire department emergency prevention division.

**507.5.1 Where required.** Where a portion of the facility or building constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from the nearest hydrant on a fire apparatus access road or more than 500 feet (152 m) from secondary hydrants needed to supply the minimum fire flow, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

**Exceptions:**

1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).
2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement for all required fire hydrants shall be 500 feet (152 m).

**507.5.3 Private fire service mains and water tanks.** Private fire service mains, including private fire hydrants, and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25 and American Water Works Association (AWWA) Manual M-17, Installation, Field Testing and Maintenance of Fire Hydrants at the following intervals:

1. Private fire hydrants (all types): Inspection annually and after each operation; flow test and maintenance annually to ensure proper functioning in accordance with the following:

- a. Private fire hydrants shall be flushed annually. Chlorine residual tests will be performed on all private hydrant systems not separated from potable water uses by an approved back-flow prevention device. The unseparated hydrants shall be flushed until the free chlorine residual meets or exceeds the 0.2 mg/l minimum established in title 30 of the Texas Administrative Code (rules and regulations for Public Water Systems). Chlorine residual shall be determined using the N,N-diethyl-p-phenylenediamine (DPD) method.
  - b. Static testing shall be performed in accordance with AWWA Manual M-17, Installation, Field Testing and Maintenance of Fire Hydrants, chapter 4.
  - c. Flow tests shall be conducted in accordance with Manual M-17, Installation, Field Testing and Maintenance of Fire Hydrants, Chapter 6.
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.

**507.5.7 Fire-protection equipment and fire hydrants.** Fire-protection equipment and fire hydrants shall be clearly identified in an approved manner to prevent obstruction by parking and other obstructions.

All fire hydrants shall be painted in accordance with City of Austin Standard Specifications. With the approval of the fire chief, private hydrants may be painted an alternate reflective color; multi-colored hydrants are prohibited. When required by the chief, hydrant locations shall be identified by the installation of reflective markers.

**507.6 Protection of potable water systems required.** Fire hydrants and the supply piping to them which contain chemicals or additives shall be separated from sources of potable water by a reduced pressure backflow assembly installed at the connection to the potable water system. Backflow assemblies shall be operationally tested and maintained in accordance with Chapter 18-5 of the City Code.

Private fire hydrants located more than 100 feet from a flowing water service shall have backflow prevention protection as required by Chapter 18-5 of the City Code.

Private fire hydrant systems not maintained, flushed and tested for chlorine residual in accordance with Section 903.4.1.2 shall be provided with backflow prevention protection in accordance with Chapter 18-5 of the City Code.

**507.6.1 Special inspections.** The City of Austin Water & Wastewater Department shall inspect private property to identify each existing private fire hydrant connected to the

City's potable water distribution system. The owner of the property or the water service customer shall bear the costs and the responsibility to provide a flushing and maintenance program in accordance with Section 508.5.3 or to provide backflow prevention protection in accordance with Chapter 18-5 of the City Code.

Further modifications shall be made by, and at the expense of, the property owner or water service customer as necessary to correct any water supply deficiencies (flow or pressure) resulting from the installation of required backflow prevention protection assemblies.

**510.1 Emergency responder radio coverage in buildings.** All buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communications system of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication system.

**Exceptions:**

1. Where approved by the building official and the fire chief, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained in lieu of an approved radio coverage system in buildings where a floor for human occupancy is not located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.
2. Where it is determined by the fire code official that the radio coverage system is not needed.

**510.1.1 Time Frame for New Building Installations.** The adequacy of radio coverage for buildings permitted after adoption of this code shall be determined following completion of construction and issuance of the Certificate of Occupancy. If supplemental equipment such as bi-directional amplifiers are necessary to assure radio coverage, the design and installation of the supplementary radio transmission equipment shall be completed within two years of original occupancy.

**510.1.2 Time Frame for Existing Buildings.** If it is discovered that radio coverage is not adequate within buildings permitted prior to the adoption of this code the design and installation of necessary supplementary radio transmission equipment shall be completed within three years of the discovery of the deficiency.

**602.2 Supplemental definition.** The following term is defined in section 202 as amended and applies throughout this code. This amended definition supplements the remaining definitions identified in Chapter 6 and replaces the definition for this term in the 2012 International Fire Code as published.

**[M] COMMERCIAL COOKING APPLIANCES.**

**603.3.2 Fuel oil storage inside buildings.** Fuel oil storage inside buildings shall comply with Sections 603.3.2.1 through 603.3.2.4 and Chapter 57.

**603.3.2.1 Quantity limits.** Except as modified by this section, the maximum allowable quantity for fuel oils shall be 120 gallons (240 gallons in buildings with fire sprinkler protection) of Class II or 330 gallons (660 gallons in buildings with fire sprinkler protection) of Class III liquids. One or more fuel storage tanks containing Class II or III combustible liquids shall be permitted in a building. When Class II fuel oil tanks are located in a room protected with a 1-hr fire barrier wall and the building is protected by an automatic sprinkler system, the aggregate capacity of all fuel oil tanks shall not exceed 660 gallons (2498 L).

**Exception:** The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) of Class II or III liquid for storage in protected aboveground tanks complying with Section 3404.2.9.6, when the following conditions are met:

1. The entire 3,000 gallon (11,356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11,356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a building protected by an automatic sprinkler system complying with 903.3.1.1; and
4. The room containing the tank or tanks is built as a Group H Occupancy except that ventilation in accordance with 5004.3 will not be required.

**603.3.2.2 Restricted use and connection.** Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel to fuel-burning or generator equipment installed in accordance with Section 603.3.2.3. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

**603.3.2.3 Installation.** Tanks and piping systems shall be installed and separated from other uses in accordance with Section 915 and Chapter 13 both of the International Mechanical Code, as applicable.

**603.3.2.4 Tanks in basements.** Tanks in basements shall be located not more than one story below the grade plane.

**901.5 Installation acceptance testing.** Fire detection and alarm systems, fire-extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service mains and all other fire protection systems and appurtenances thereto shall be subject to acceptance tests as contained in the installation standards and as approved by the fire department. The fire department emergency prevention division shall be notified before any required acceptance testing.

The conditions of approval of all Halon automatic fire-extinguishing systems shall include (i) a demonstration of need acceptable to the fire chief detailing a critical need for the system such as a direct effect on life safety that cannot be adequately addressed by other types of suppression systems, and (ii) an approved method of testing that does not include the intentional release of Halon gas.

**903.2.6. Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

**Exceptions:**

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 facilities.
2. Where a building being constructed will be within the scope of 903.3.1.3, an automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be allowed in Group I-1 facilities when in compliance with all of the following:
  - 2.1. A hydraulic design information sign is located on the system riser;
  - 2.2. Exception 1 of Section 903.4 is not applied; and
  - 2.3. Systems shall be maintained in accordance with the requirements of Section 903.3.1.2.
3. An automatic sprinkler system is not required where day care facilities are at the level of exit discharge and where every room where care is provided has at least one exterior exit door.
4. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided and all floors between the level of care and the level of exit discharge, all floors below the level of exit discharge,.

**Exception:** An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group I-1 facilities.

**903.3.1.2.1 Balconies and decks.** Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units where the building is of Type V construction, or of Type III construction if the balcony or deck is framed with wood, 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 (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.



**903.3.1.2.2 Balcony closets.** Sprinkler protection shall be provided for all balcony closets.

**903.3.1.3 NFPA 13D sprinkler systems.** Automatic sprinkler systems installed in one and two-family dwellings, Group R-3 and R-4 congregate living facilities with 16 or fewer residents, and townhouses may be installed throughout in accordance with NFPA 13D.

**903.3.5.2** Water supplies designed for automatic sprinkler systems shall provide a safety factor of 10 pounds per square inch gauge (PSIG) or 10 percent of the minimum required residual pressure, whichever is greater. The safety factor shall be based on the calculated system design flow and pressure.

**Exception:** A safety factor less than those defined in this section may be approved by the fire chief only if historical water supply data is available to demonstrate that reasonable expected fluctuations will not cause the water supply to fall below the system demand.

**903.3.5.3 Hose Stream Demand.** The minimum calculated hose stream demand for Type V-B and Type V-A construction, as defined in the Building Code, shall be a minimum of 250 Gallons Per Minute (GPM).

**903.3.6 Hose threads.** Fire hose threads and fittings used in connection with automatic sprinkler systems shall be approved and shall be National Standard Hose Thread.

**903.3.8 Sprinkler System Flex Piping.** Flex piping used in automatic sprinkler systems shall be limited in length to a maximum of 6 feet. The extinguishing agent shall pass through a maximum of one 6 foot section before discharging from the sprinkler orifice (head). Approval of shop drawing submittals shall be required for all uses of flex sprinkler piping and where more than one (1) flex piping sprinkler drop is used in a remodel application the adequacy of the water supply shall be verified by hydraulic calculations.

**904.9 Halon systems.** Halogenated extinguishing systems shall be installed, maintained, and periodically inspected and tested in accordance with NFPA 12A and their listing. The conditions of approval of all Halon automatic fire-extinguishing systems shall include (i) a demonstration of need acceptable to the fire chief detailing a critical need for the system such as a direct effect on life safety that cannot be adequately addressed by other types of suppression systems, and (ii) an approved method of testing that does not include the intentional release of Halon gas.

**904.11 Commercial cooking systems.** The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Each pre-engineered automatic dry- and wet-chemical extinguishing system shall be tested in accordance with UL 300 and listed and labeled for its intended application. Other types

of extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Automatic fire suppression systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:

1. Carbon-dioxide extinguishing systems, NFPA 12.
2. Automatic sprinkler system, NFPA 13.
3. Foam-water sprinkler system or foam-water spray systems, NFPA 16.
4. Dry-chemical extinguishing systems, NFPA 17.
5. Wet-chemical extinguishing systems, NFPA 17A.

**Exception 1:** Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B, and listed and installed in accordance with Section 304.1 of the International Mechanical Code.

**Exception 2:** With the concurrence of the Building Official, commercial cooking equipment used intermittently for periods which total less than 6 hours per week may be served by a Type II ventilation hood without fixed fire suppression. A portable fire extinguisher rated for commercial cooking applications shall be provided.

**905.1 General.** Standpipe systems shall be provided in new buildings and structures in accordance with this section. Fire hose threads used in connection with new fire standpipe systems shall be approved and shall be National Standard Hose Thread. Except as otherwise approved by the fire chief, existing standpipe fire hose threads shall be national standard hose thread. The location of fire department hose connections shall be approved. In buildings used for high-piled combustible storage, fire protection shall be in accordance with Chapter 32.

**905.1.1 Hose.** With the concurrence of the Building Official, hoses need not be installed or maintained on standpipes of any class when the occupancy does not provide training in the use of standpipe hose and the employees, residents, or other regular occupants of the occupancy are trained/instructed to evacuate and evacuation drills are conducted at intervals agreed on by the owner/agent and the Fire Department

**905.3.1 Building height.** Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet (9144mm) below the highest level of fire department vehicle access.

**Exceptions:**

1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.
3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that additional hose connections are located as required for Class II standpipes in accordance with Section 905.5.
4. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.
5. In determining the lowest level of fire department vehicle access, it shall not be required to consider:
  - 5.1. Recessed loading docks for four vehicles or less, and
  - 5.2. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

**905.3.4.1 Hose and cabinet.** If hose is installed, the 1½-inch (38 mm) hose connections shall be equipped with sufficient lengths of 1½-inch (38 mm) hose to provide fire protection for the stage area. Hose connections shall be equipped with an approved adjustable fog nozzle and be mounted in a cabinet or on a rack.

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

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

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

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

**Exception:** Where floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle

attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), a hose connection shall be located to serve the roof or at the highest landing of a stairway with stair access to the roof provided in accordance with Section 1009.16. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.

**905.5.3 Class II system hose.** If installed, the minimum diameter for standpipe hose shall be 1½-inch (38 mm) and such hose shall be listed for this service.

**906.1 Where required.** Portable fire extinguishers shall be installed in the following locations. Before the installation of Halon fire extinguishers in new occupancies or processes, the applicant must submit a demonstration of need acceptable to the chief detailing a critical need for this type of extinguisher such as a direct effect on life safety that cannot be adequately addressed by other types of extinguishing agents.

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

**Exception:** In all Group E occupancies equipped throughout with quick-response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.

2. Within 30 feet (9144 mm) of commercial cooking equipment.
3. In areas where flammable or combustible liquids are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 1415.1.
5. Where required by the sections indicated in Table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire chief.

**907.2 Where required, new buildings and structures.** An approved manual, automatic or manual and automatic fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.6, unless other requirements are provided by another section of this code. The fire alarm control panel or a full function remote annunciator shall be installed at the main entrance for use by fire department personnel.

A minimum of one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or water-flow detection devices. The automatic fire detectors shall be smoke detectors. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed. The manual fire alarm box is required to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. The manual fire alarm box may be located in an area that is accessible to the public.

**Exceptions:**

1. The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.
2. Automatic heat detection required by this section shall not be required if automatic sprinkler protection installed in accordance with Section 903.3.1.1 or 903.3.1.2 is provided and connected to the building fire alarm system.
3. Where ambient conditions prohibit installation of automatic smoke detection, other automatic fire detection shall be allowed.

**907.2.1.3 Electrical Shunt for Amplified Sound Conditions.** For venues with amplified music or sound systems, in Group A occupancies having an occupant load of 300 or more, electrical shunts shall be provided to de-energize the music or sound systems upon alarm activation as necessary to demonstrate compliance with the audibility requirements of NFPA 72.

**907.2.3.1. Common Areas Within Day Care and Child Care Facility Occupancies.** Group E day care occupancies shall be provided a fire alarm system as required by sections 907.2.6.4 and 907.2.3.

**907.2.6.4 Common Areas Within Day Care Occupancies.** Day care occupancies shall be protected by a fire alarm system which monitors smoke detectors installed in accordance with this section, the listing of the detectors, and NFPA 72. Detectors must be placed on each story in front of doors to the stairways and at no greater spacing than the detector's listed spacing in the corridors of all floors containing the day care facility. Detectors must also be installed in lounges, recreation areas and sleeping rooms in the

day care occupancy and as required by the Building Code. Alarms shall be visible and audible throughout the day care facility.

**Exceptions:**

1. Day cares housed within a single room.
2. A Group E day care housed within and serving the students of an E occupancy, such as an after school program, summer program, or similar function, are permitted to comply with the alarm and detection requirements of section 907.2.3.
3. Day cares serving less than 12 children when operated within the single family residence of the day care operator, provided that the dwelling is protected with interconnected hard wired smoke alarms located as required by this section and powered as required for a new home in accordance with the International Residential Code and NFPA 72. When such residential day cares serve hearing impaired children, parents, or guardians, the interconnected single station smoke alarms shall be listed for visual alarm service.
4. Single story day care occupancies serving 30 or fewer children with multiple remote at grade exits as defined by the Building Code may be provided with a smoke detection system complying with the State of Texas licensing standards provided that the operation of any detection device will cause the operation of an alarm device within every area listed above. When such small day cares serve hearing impaired children, parents, or guardians, the alarm signals shall be produced by devices listed for visual alarm service.

**907.2.7 Group M.**

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group M occupancies where one of the following conditions exists:

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

**Exceptions:**

1. A manual fire alarm system is not required in covered mall buildings complying with Section 402 of the International Building Code.
2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with

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

3. Duct smoke detectors installed in separate lease spaces of large shell buildings need not be connected to monitoring panels where the only fire alarm system installed in the building is the required monitoring for a fire sprinkler system and the sprinkler monitoring system is located inside a different lease space.

**907.2.8.1 Manual fire alarm system.** A manual fire alarm system shall be installed in Group R-1 occupancies.

**Exceptions:**

1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each individual sleeping unit has an exit directly to a public way, exit court, or yard.
2. Manual fire alarm boxes are not required throughout the building when the following conditions are met:
  - 2.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2;
  - 2.2. The notification appliances will activate upon sprinkler water flow; and
  - 2.3. At least one manual fire alarm box is installed at an approved location.
3. Audibility requirements shall not be applicable on balconies less than 100 square feet in area, or on balconies where the least dimension is 5' or less.

**907.2.8.2 Automatic smoke detection system.** An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.6 shall be installed throughout all group R-1 occupancies. Listed system-type automatic detectors shall be installed within interior corridors serving sleeping units and within furnace rooms, and common areas such as, recreational rooms, laundry rooms, and similar areas served by such interior corridors providing access to and egress from sleeping units.

**Exception:** An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units, where each sleeping unit has a means of egress door opening directly to an exit or to an exterior exit access that leads directly to an exit, and where recreational rooms, laundry rooms, furnace rooms, and similar areas are not located within or along the egress paths from sleeping units.

**907.2.9 Group R-2.** Fire alarm systems and smoke alarms shall be installed in Group R-2 occupancies as required in Section 907.2.9.1 and 907.2.9.2.

**907.2.9.1 Manual and automatic fire alarm system.** A manual and automatic fire alarm system that activates the occupant notification system in accordance with 907.6 shall be installed in Group R-2 occupancies where:

1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge;
2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit; or
3. The building contains more than 16 dwelling units or sleeping units.

Listed system-type automatic detectors shall be installed within furnace rooms, and common areas such as recreational rooms, laundry rooms, interior corridors serving as the primary access and egress for dwelling units, and similar areas.

**Exceptions:**

1. A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, exit court, or yard.
2. Manual fire alarm boxes are not required throughout the building when all the following conditions are met:
  - 2.1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or Section 903.3.1.2;
  - 2.2. The notification appliances will automatically activate throughout the notification zones upon sprinkler water flow; and
  - 2.3. At least one manual fire alarm box is installed at an approved location.
3. A separate fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with 903.3.1.1 or 903.3.1.2, provided that sprinkler system activation results in a local alarm designed to notify all occupants and dwelling units have a means of egress door opening directly to an exterior exit access that leads directly to the exists or are served by open ended corridors designed in accordance with Section 1026.6, exception 4.



4. Audibility requirements shall not be applicable on balconies less than 100 square feet in area, or on balconies where the least dimension is 5' or less.

**907.2.9.2 Smoke alarms.** Single- and multiple-station smoke alarms shall be installed in accordance with section 907.2.11.

**907.2.13.2 Fire department wired communications system.** An approved two-way, fire department wired communication system designed and installed in accordance with NFPA 72 shall be provided for fire department use. It shall operate between a fire command center complying with Section 508 and elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside enclosed exit stairways. The fire department communication device shall be provided at each floor level within the enclosed exit stairway.

**907.5.1 Protection of fire alarm control unit.** In areas that are not continuously occupied, a single smoke detector shall be provided at the location of each fire alarm control unit, notification appliance circuit power extenders, and supervising station transmitting equipment.

**Exceptions:**

1. Where ambient conditions prohibit installation of automatic smoke detection, a heat detector shall be permitted.
2. The smoke detector shall not be required at the location of notification appliance circuit power extenders where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

**907.6.5 Monitoring.** Fire alarm systems required by this chapter or by the International Building Code shall be monitored by an approved supervising station in accordance with NFPA 72, or by a local alarm which gives audible and visual signals at a constantly attended location. Reporting procedures and personnel training records for local alarm systems monitored at a constantly attended location shall be maintained for review and approval by the Fire Department.

**Exception:** Supervisory service is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.11.
2. Automatic sprinkler systems in one- and two-family dwellings.

**907.6.6 Annunciation and control.** The main fire alarm control panel or a full function remote annunciator shall be installed at the main entrance or at an approved location near the main entrance of buildings with fire alarm systems.

**909 Smoke Control Systems.** Smoke control systems shall be designed and installed as specified in Section 909 of the Building Code as amended.

**912.1 Installation.** Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design and shall comply with Sections 912.1.1 through 912.6.

**912.1.1 Number of Hose Connections.** Fire department connections (FDC's) shall include a minimum of two 2½ inch (63.5 mm) female National Standard Hose Thread (NST) inlet connections. Where system design flow rates exceed 500 gpm (1,893 lpm), a minimum of one FDC inlet connection shall be installed for each 250 gpm (946 lpm) or portion thereof.

**Exception:** Where permitted by other sections of this code or associated standards, a single 1½ inch or 2½ inch FDC inlet is acceptable for residential fire sprinkler systems installed in accordance with NFPA 13R. When an FDC is installed, a single 1½ inch inlet is acceptable for residential system installed in accordance with NFPA 13D.

**912.3 Access.** Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other fixed or moveable object for a minimum of 3 feet (914 mm). Access to fire department connections shall be approved by the fire chief.

**Exception:** Fences, where provided with an access gate equipped with a sign complying with the legend requirements of Section 912.4 and a means of emergency operation. Locks, if installed shall be openable by use of a fire department Knox Key. The gate and means of emergency operation shall be approved by the fire chief and maintained operational at all times.

**912.3.1 Locking fire department connection caps.** The fire code official is authorized to require locking caps on fire department connections for water-based fire protection systems. The locking caps shall be manufactured by an approved manufacturer and used and maintained as designed.

**912.3.1.2 Locking fire department connection caps in existing buildings or structures.** The fire code official is authorized to require locking caps on fire department connections (FDC) for water-based fire protection systems serving existing buildings where the fire department has observed obstructions placed in the FDC or where the FDC is missing caps. The locking caps shall be manufactured by an approved manufacturer and used and maintained as designed.

**912.4.1 Fire Department Connection Placard – for existing structures.** In addition to the signage required in 912.4, an all weather, permanent, system placard shall be placed in a visible location adjacent to the fire department connection on all structures over 10 floors in height and any structures with a fire department connection requiring pressures exceeding 150 psi. The placard text shall be white reflective letters, 1 ½ inch minimum height, on either a red or black background. The placard shall contain the following information.

1. Required system pressure at FDC inlet.
2. Area of building served by FDC.
3. System PRV locations.

**[B 403.3.2] 914.3.1 Automatic sprinkler system.** Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Building Code Section 403.3.2.

**Exception:** An automatic sprinkler system shall not be required in spaces or areas of:

1. Stand-alone open parking garages in accordance with Section 406.5 of the International Building Code.
2. Telecommunications equipment buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic fire detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.

**[B 403.5.3.1] 914.3.7 Stairway communications system.** A telephone or other two-way communications system connected to an approved constantly attended station shall be provided at not less than every floor in each required stairway where the doors to the stairway are locked.

**Exception:** The stairway communication system is not required in high rise buildings when all the following conditions are met;

- a. Area of refuge communication system terminal, installed and maintained per International Building Code Sec. 1007.6.3, is located immediately adjacent to each floor level landing.
- b. The area of refuge communication terminal is connected to an approved constantly attended station.
- c. The door between the stair and the vestibule (area of refuge) cannot be locked.

An approved sign is provided at each floor level landing inside the stairwell.

**1002.2 Supplemental Definitions.** The following supplemental definitions are defined in section 202.1. For the purposes of this chapter and as used elsewhere in this code, these definitions shall have the meanings shown in section 202.1. The definitions in the 2012

IFC are adopted as published except that the supplemental definitions are added or amended.

**STAIR.** A change in elevation, consisting of two or more risers.

**STAIRWAY EXTERIOR.**

**Table 1004.1.2**

**MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

<b>OCCUPANCY</b>	<b>FLOOR AREA IN SQ. FT. PER OCCUPANT</b>
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (standing room)	7 net
Queuing line	7 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross

H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Accessory storage areas, mechanical equipment room	300 gross
Warehouses	500 gross

**1004.2 Increased occupant load.** The occupant load permitted in any building, or portion thereof is permitted to be increased from that number established for the occupancies in Table 1004.1.1 provided that all other requirements of the code are also met based on such modified number and the overall occupant load shall not exceed one occupant per 7 square feet (0.65 m<sup>2</sup>) of occupiable floor space. Where required by the fire code official, an approved aisle, seating or fixed equipment diagram substantiating any increase in occupant load shall be submitted. Where required by the fire chief, such diagram shall be posted.

**1004.3 Posting of occupant load.** Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or authorized agent. See also section 403.1.3 concerning advanced ticket sales limitations.

**1030.2 Reliability.** Required exit accesses, exits, or exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency when the areas served by such exits are occupied. Security devices, including drop bars, affecting means of egress shall require approval of the fire chief. Doors utilizing drop bars must have signage on the exterior of the door stating "Door equipped with drop bar". Doors utilizing drop bars must have signage on the interior of the door stating "Drop bar must be removed when building is occupied". When security devices are not in use, they must be secured in a manner where unauthorized use is prevented, such as:

- a. Locking bar in a keeper near the door; or
- b. Securing bar in an office, locked closet, or similar location not accessible to the general public.

Approval to use security devices outside the scope of this code may be revoked for failure to meet the letter and intent of these rules.

**1102.1 Supplemental Definitions.** The definitions in the 2012 IFC are adopted as published except that supplemental definitions are added or amended. The following supplemental definitions are defined in section 202.1.1. For the purposes of this chapter and as used elsewhere in this code, these definitions shall have the meanings shown in section 202.1.1.

## **EXISTING.**

### **INDEPENDENT EXIT/INDEPENDENT STAIRWAY/INDEPENDENT EXIT RAMP.**

**1103.5.3 Group B ambulatory health care facilities.** An automatic sprinkler system shall be installed throughout all existing fire areas containing a Group B ambulatory health care facility occupancy when the facility is designed to allow either of the following conditions to exist at any time:

1. Four or more care recipients are incapable of self-preservation.
2. One or more care recipients who are incapable of self-preservation are located at other than the level of exit discharge serving such occupancy.

**1103.6 Standpipes.** Existing structures with occupied floors located more than 50 feet (15 240 mm) above or below the lowest level of fire department access shall be equipped with standpipes installed in accordance with Section 905. The standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. The fire chief is authorized to approve the installation of manual standpipe systems to achieve compliance with this section where the system is demonstrated to be capable of providing the required hose flow and pressure at the highest standpipe outlet while the fire department is providing the water

supply to the fire department connection (FDC) at a maximum FDC inlet pressure of 150 psi (10.3 bar).

**1103.7.6 Group R-2.** An automatic or manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in existing Group R-2 occupancies more than three stories in height or with more than 16 dwelling or sleeping units. A plan for achieving compliance shall be completed by the owner within 12 months of the discovery of the deficiency. Compliance shall be achieved within 24 months of the discovery of the deficiency.

**Exceptions:**

1. A fire alarm system is not required in existing R-2 occupancies where each living unit is separated from other contiguous living units by fire barriers having a fire-resistance rating of not less than 0.75 hour, and where each living unit has either its own independent exit or its own independent stairway or ramp discharging at grade. When conditions warrant, the fire chief is authorized to accept an alternate minimum distance from the egress path to nearby doors and windows of apartments.
2. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and having a local alarm to notify all occupants.
3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1023.6, Exception 4.

**1103.8.3 Power source.** In Group R occupancies, single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

**Exceptions:**

1. Smoke alarms are permitted to be solely battery operated in existing buildings in locations where smoke alarms were not required to be powered

by the building wiring under the code in effect at the time of construction and where no construction is taking place.

2. Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.
3. Smoke alarms are permitted to be solely battery operated in existing areas of buildings in locations where smoke alarms were not required to be powered by the building wiring under the code in effect at the time of construction and undergoing alterations or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure.

**1103.9 Carbon monoxide alarms.** Where interior work requiring a permit is done in an existing Group I or R occupancy located in a building containing a fuel-burning appliance or a building which has an attached garage single-station carbon monoxide alarm(s) shall be installed in the unit(s) in which the work was performed. The carbon monoxide alarms shall be listed as complying with UL 2034, and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in the International Building Code, or an enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be deemed to be an attached garage. In R occupancies, the carbon monoxide alarm(s) may be solely battery operated.

**Exception:** Sleeping units or dwelling units which do not themselves contain a fuel-burning appliance or have an attached garage, but which are located in a building with a fuel-burning appliance or an attached garage, need not be equipped with single-station carbon monoxide alarms provided that:

1. The sleeping unit or dwelling unit is located one story or more above or below any story that contains a fuel-burning appliance or an attached garage; and the sleeping unit or dwelling unit is not connected by duct work or ventilation shafts to any room containing a fuel-burning appliance or to an attached garage; or
2. The building is provided with a common area carbon monoxide alarm system.

**2403.5 Mixing and Blending Area.** Mixing, blending, and similar operations involving less than 10 gallons of Class I or Class II liquids, outside of a room approved for inside use, dispensing and mixing in accordance with 3405.3.7, must be performed in an area meeting the following requirements:

1. All electrical service within 10 feet of the mixing operations must meet the Class I, Division II requirements of the Electrical Code.
2. Ventilation for the area must be adequate to maintain flammable vapors under 25 percent of the lower explosive limit of the most volatile material in use. A line of site partition of one-hour construction must separate the



mixing and blending operations from other spray finishing operations and flammable liquids storage.

## **CHAPTER 23**

### **MOTOR FUEL-DISPENSING FACILITIES, REPAIR GARAGES, AND AUTOMOBILE WRECKING YARDS**

**2301.1 Scope.** Automotive motor fuel-dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities, automobile wrecking yards, and repair garages shall be operated in accordance with this chapter and the International Building Code, International Fuel Gas Code and the International Mechanical Code. Such operations shall include both operations that are accessible to the public and private operations.

**2304.1 Supervision of dispensing.** The dispensing of fuel at motor fuel-dispensing facilities shall be conducted by a qualified attendant who is a Texas Commission on Environmental Quality certified UST Operator or shall be under the supervision of a qualified attendant who is a TCEQ certified UST Operator at all times or shall be in accordance with section 2304.3.

**2304.2 Attended self-service motor fuel-dispensing facilities.** Attended self-service motor fuel-dispensing facilities shall comply with Sections 2304.2.1 through 2304.2.5. Attended self-service motor fuel-dispensing facilities shall have at least one TCEQ certified UST Operator on duty while the facility is open for business. The attendant's primary function shall be to supervise, observe and control the dispensing of fuel. The attendant shall prevent the dispensing of fuel into containers that do not comply with Section 2304.4.1, control sources of ignition, give immediate attention to accidental spills or releases, and be prepared to use fire extinguishers.

**2305.1.3 Tank fill connections.** Delivery of flammable liquids to tanks shall be made by means of approved liquid- and vapor-tight connections between the delivery hose and tank fill pipe. Where tanks are equipped with any type of vapor recovery system, all connections required to be made for the safe and proper functioning of the particular vapor recovery process shall be made. Such connections shall be made liquid and vapor tight and remain connected throughout the unloading process. Vapors shall not be discharged at grade level during delivery.

**2305.2.1 Inspections.** Flammable and combustible liquid fuel dispensing and containment equipment shall be inspected at least once every sixty (60) days in accordance with the regulations of the TCEQ in order to verify that it is in proper working order and not subject to leakage.

**2305.3 Spill control.** Provisions shall be made to prevent liquids spilled during dispensing operations from flowing into buildings or off of the property on which the tank is located. Acceptable methods include, but shall not be limited to, grading driveways, raising doorsills, or other approved means.

**2306.7.6.2 Testing.** The automatic closing function of automatic closing fuel delivery hose nozzles that dispense Class I, II, and III liquids shall be tested an annual basis.

## **Section 2312**

### **AUTOMOBILE WRECKING YARDS**

**2312.1 SCOPE.** Automobile wrecking yards shall comply with this section and the International Building Code. For rubbish handling operations, see Chapters 3 and 29.

**2312.2 FIRE APPARATUS ACCESS ROADS.** Fire apparatus access roads shall be constructed and maintained throughout the site in accordance with Section 503.

**2312.3 WELDING AND CUTTING.** Welding and cutting operations shall be in accordance with Chapters 26 and 30.

**2312.4 HOUSEKEEPING.** Combustible rubbish accumulated on the site shall be collected and stored in approved containers, rooms or vaults of noncombustible materials. Combustible vegetation, cut or uncut, shall be removed when determined by the chief to be a fire hazard.

**2312.5 FIRE PROTECTION.** Offices, storage buildings and vehicles used for site operations shall each be provided with at least one portable fire extinguisher with a rating of not less than 4-A:40-B:C. When required by the chief, additional portable fire extinguishers shall be provided in specific use areas in accordance with NFPA 10.

**2312.6 TIRES.** Tires shall be stored on racks in an approved manner or shall be piled in accordance with Chapter 25.

**2312.7 BURNING OPERATIONS.** The burning of salvage vehicles and salvage or waste materials shall be in accordance with Chapter 3 and federal, state or local air quality control regulations.

### **2312.8 MOTOR VEHICLE FLUIDS AND HAZARDOUS MATERIALS**

**2312.8.1 General.** The storage, use and handling of motor vehicle fluids and hazardous materials, such as those used to operate air bags and electrical systems, shall be in accordance with Section 2312, Section 2311, Chapter 50, and Chapter 57.

**2312.8.2 Motor Vehicle Fluids.** Motor vehicle fluids shall be drained from salvage vehicles when such fluids are leaking. Storage and handling of motor vehicle fluids shall be done in an approved manner. Flammable and combustible liquids shall be stored and handled in accordance with Section 2311, Chapter 50, and Chapter 57.

**2312.8.3 Mitigation for Vehicle Fluid Leaks.** Supplies or equipment capable of mitigating leaks from fuel tanks, crankcases, brake systems and transmissions shall be kept available on site. Single- use plugging, diking and absorbent materials shall be disposed of as hazardous waste and removed from the site in a manner approved by federal, state or local requirements.

**2312.8.4 Air Bag Systems.** Removed air bag systems shall be handled and stored in accordance with Chapter 50.

**2312.8.5 Lead-acid Batteries.** Lead-acid batteries shall be removed from salvage vehicles when such batteries are leaking. Lead-acid batteries that have been removed from vehicles shall be stored in an approved manner.

**2312.8.6. Container Destruction.** Destruction of vehicle containers containing liquids or gases defined as flammable or combustible by this code is prohibited unless the containers are properly drained and the by-product stored or disposed of in accordance with Chapter 50, are filled with an inert material or purged, and at the time of destruction, have a vapor content less than 25 percent of the by-product's lower explosive limit or an oxygen content of less than 10 percent.

**3103.5 Use periods.** Temporary tents, air supported, air-inflated or tensioned membrane structures of any size that are independent of and separated by at least 20 feet (6096 mm) from any building as specified in Section 2403.8.2 shall not be erected for a period of more than 180 days within a 12-month period on a single premises. Temporary tents, air supported, air-inflated or tensioned membrane structures of any size that are in any way attached to or within 20 feet (6096 mm) of a building shall not be issued a permit for a continuous period of more than 30 days or for a total of more than 90 days within a 12-month period on a single premises. Tents, air supported, air-inflated or tensioned membrane structures used for periods exceeding these limits shall be considered buildings or structures regulated by the Building Code and shall be required to be erected under a building permit and obtain a certificate of occupancy.

**3103.8.2 Location.** Tents or membrane structures shall not be located within 20 feet (6096 mm) of lot lines, buildings, other tents or membrane structures, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure, or tent.

**Exceptions:**

1. Separation distance between membrane structures and tents not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet (1394 m<sup>2</sup>).
2. Membrane structures or tents need not be separated from buildings when all of the following conditions are met:

- 2.1. The aggregate floor area of the membrane structure or tent shall not exceed 10,000 square feet (929 m<sup>2</sup>).
- 2.2. The aggregate floor area and total height of the building and membrane structure or tent shall not exceed the allowable floor area or the allowable height, in stories or feet, including increases as indicated in the International Building Code.
- 2.3. Required means of egress are provided for both the building and the membrane structure or tent including travel distances.
- 2.4. Fire apparatus access roads are provided in accordance with Section 503.
- 2.5. Occupant load is, for the purposes of complying with Chapters 9 and 10 of the Building Code and Fire Code, based on the aggregate of the building floor area and the area under the membrane structure or tent.

**5001.1.2** This Article regulates the handling and storage of hazardous materials in aboveground storage facilities. Underground storage facilities are regulated by Chapter 14-3 of the Austin City Code.

**5001.2 Material classification.** Hazardous materials are those chemicals or substances defined as such in this code. Definitions of hazardous materials shall apply to all hazardous materials, including those materials regulated elsewhere in this code. For descriptions and examples of materials included in hazard categories, see Appendix E. For the purposes of interpreting the term "highly toxic", the chief shall use the NFPA Standard No. 704 rating of 4. On written request of an permit applicant or permit holder, the chief may substitute alternative specifications and guidelines for the standards normally used in determining hazard ratings as outlined in Section 105.6, provided the applicant or permit holder submits suitable evidence that the proposed alternative will meet or exceed the requirements of this Chapter.

**5001.2.3 Radioactive Materials.** Storage of radioactive materials shall be in accordance with the provisions set forth by the Texas Department of State Health Services, Radiation Control Program. For the purposes of building design, occupancies using or storing radioactive materials, with the potential of being designated a "Radiation Area" under Federal or State law or regulations, shall comply with the construction requirements of a Group H, Division 4 occupancy unless more stringent requirements are imposed by Federal or State regulations.

**5001.5 Permits.** No person, firm, or corporation may store, dispense, use, or handle hazardous materials in more than the quantities named in Section 105.6 unless a valid permit has been issued under this Chapter.

When required by the fire chief, permit holders shall apply for approval to permanently close a storage, use or handling facility. Such application shall be submitted at least 30 days prior to the termination of the storage, use or handling of hazardous materials. The

fire chief is authorized to require that the application be accompanied by an approved facility closure plan in accordance with Section 5001.6.3.

**5001.5.1 Hazardous Materials Management Plan.** Where required by the fire chief, an application for a permit shall include a Hazardous Materials Management Plan (HMMP). The HMMP shall include a facility site plan clearly designating the following:

1. Locations of and access to each storage and use area.
2. Maximum amount of each material stored or used in each area and the range of container sizes used.
3. Location of emergency equipment, including emergency isolation and mitigation valves and devices , and product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines. The normal position of valves (on/off or open/closed) shall be provided for position indicating valves.
4. Location where liaison will meet emergency responders.
5. Facility evacuation meeting point locations.
6. The general purpose of other areas within the building.
7. Storage plan showing the intended storage arrangement, including the location and dimensions of aisles, the location of all aboveground and underground tanks and their appurtenances including, but not limited to, sumps, vaults, below-grade treatment systems and piping.
8. The hazard classes in each area.
9. Locations of all control areas and Group H occupancies.
10. Emergency exits.

The plans shall be legible and drawn approximately to scale. Separate distribution systems are allowed to be shown on separate pages.

**5001.5.2 Hazardous Materials Inventory Statement (HMIS).** Where required by the fire chief, an application for a permit, shall include an HMIS, such as Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Tier II Report or other approved statement. The HMIS shall include the following information:

1. Manufacturer's name.
2. Chemical names, product or trade names, hazardous ingredients.
3. United Nations (UN), North America (NA) and the Chemical Abstract Service (CAS) identification number (as applicable and as available).

4. Maximum quantities stored or used on-site at one time, including amounts in use-closed systems and amounts in use-open systems.
5. Location where stored or used.
6. Container sizes.
7. Hazard classifications including the NFPA 704 rating of each chemical.

**5001.7 Permit Procedure.** A hazardous materials permit shall be granted after:

1. The applicant has filed with the Fire Department a completed hazardous materials permit application, in accordance with 5001.5 and this section; and
2. The applicant has paid the application fee as established by the City Council.

**5001.7.1 Application.** A Hazardous Materials Permit Application shall include the following:

1. General information including the name, address, and telephone number of the facility, the number of employees, hours of operation, and a name and emergency telephone number of the primary emergency contact person;
2. An HMMP in accordance with 5001.5.1 which includes a facility site plan and a storage map. The storage map shall identify the location of hazardous materials storage areas, and access to the materials;
3. A Hazardous Materials Inventory Statement (HMIS) in accordance with 5001.5.2.

**5001.7.1.1** The facility site plan required in Section 5001.5.1 may be omitted from applications when, in the opinion of the fire chief, the plan will not provide additional information necessary to prevent an actual or potential hazard to the public health, safety, or welfare (including the health, safety, or welfare of firefighters) or to facilitate the Fire Department's response in the event of an emergency involving hazardous materials at the facility.

**5001.7.2** No person, firm, or corporation may install, repair, abandon, remove, place temporarily out of service, close, or substantially modify a storage facility or other area required to be permitted under this Article without a permit. (See Section 5001.6.3.)

**Exceptions:**

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

3. Registered Industrial Plants may perform work in accordance with the provisions of the building code and rules governing the facilities.

Permit holders shall apply for approval to close bulk storage, use, or handling facility at least 30 days before the termination of the storage, use, or handling of hazardous materials. The applicant shall include any change or alteration of the facility closure plan filed under Section 5001.6.3 of this Chapter. This 30 day period may be waived by the chief.

**5001.7.3 Permit Effective Date.** The Fire Department shall grant or deny a permit application no later than 60 days after receipt of the completed application. The Department will provide written confirmation to the applicant demonstrating receipt of the application within 30 days of receipt of the application. If the Department fails to grant or deny the permit within 60 days, the permit is considered to be issued and in effect. The Fire Department shall inspect the business for satisfactory storage and use of hazardous materials. The operation of a facility under a permit issued before inspection constitutes the permission of the facility owner/operator for the chief to enter on the facility for the purpose of conducting the required inspection. Refusal to allow the inspection shall constitute a prima facie cause to revoke the permit under Section 105.6.

**5001.7.4 Permit Term and Renewal.** A permit is granted for a term of three years from the date of issuance. Permits may be renewed every three years on the anniversary of permit issuance. At the discretion of the fire chief, a permit may be issued for a shorter period. The fee assessed for the permits shall be prorated for the appropriate time. If a permit is issued for a shorter period at the request of the applicant, an additional handling fee may be assessed, not to exceed the actual cost of clerical processing time.

**5001.7.5 Annexation Procedure.** A facility brought under regulation by this Article through annexation shall file a permit application with the Fire Department no later than 90 days after the effective date of annexation. The Department shall grant or deny a permit application submitted under this subsection no later than six months after receipt of the completed application. If the Department fails to grant or deny the permit within the period, the permit is considered to be issued and in effect. The Fire Department shall inspect the business for satisfactory storage or use of hazardous materials. The operation of a facility under a permit issued before inspection constitutes the permission of the facility owner/operator for the fire chief to enter on the facility for the purpose of conducting the required inspection. Refusal to allow the inspection shall constitute a prima facie cause to revoke the permit under Section 105.6.

**5001.7.6 Permit Denial.** If the Fire Department denies a permit, the Department shall notify the applicant in writing of the action. The notification must include a statement of the Department's reasons for the action.

**5001.7.7 Transfer.** A permit may be transferred to a new owner or operator of a business at the same location if the new owner or operator by letter to the Fire Department accepts

responsibility for all obligations under this Article at the time of the transfer of the business. All permit transfers are subject to the approval of the fire chief.

**5001.7.8 Fees.** No permit may be granted, renewed or continued in effect until the fee as established by the City Council has been paid. The fee shall be paid at the time an application is filed.

**5001.7.9 Amendment.** Any information required to be submitted by this Article shall be amended or supplemented no later than 30 days after the occurrence of an event that would render the information inaccurate. An amendment or supplement is not required in the following cases unless the change(s) would affect the ability of emergency response personnel to safely respond to an emergency:

1. To record minor changes in the quantities of hazardous materials stored;
2. To record the temporary storage of hazardous materials at the facility; or
3. To record a temporary change of hazardous materials storage location.

**5002.2 Supplemental Definitions.** The definitions in the 2012 IFC are adopted as published except that supplemental definitions are added or amended. The following supplemental definitions are defined in section 202.1.1. For the purposes of this chapter and as used elsewhere in this code, these definitions shall have the meanings shown in section 202.1.1.

## **APPLICABLE STANDARDS.**

### **BULK STORAGE.**

### **PERMANENT STORAGE.**

### **PERMIT.**

**PROCESS VESSEL.** A container, including the associated piping, used or designed to be used to contain or promote a chemical or physical reaction.

### **Table 5003.1.1(1) Footnote i**

- i. The maximum allowable quantity for fuel oil storage may be increased in accordance with Section 606.3.2.

**5003.3.1.4 Responsibility for cleanup.** The 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 jurisdiction. When deemed necessary by the fire chief, cleanup may be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator or other person responsible for the unauthorized discharge. Such costs shall include but shall not be limited to:



1. Chemical absorbent or adsorbent materials;
2. Chemical neutralizers;
3. Chemical resistant suits, gloves, or boots;
4. Chemical containment drums;
5. Vapor suppression foams;
6. Containment tools;
7. Chemical detection devices; and
8. Personnel costs for incident related overtime activities.

**5003.9.8 Separation of incompatible materials.** Incompatible materials in storage and storage of materials that are incompatible with materials in use shall be separated when the stored materials are in containers having a capacity of more than 5 pounds (2 kg) or 0.5 gallon (2 L). Separation shall be accomplished by:

1. Segregating incompatible materials in storage by a distance of not less than 20 feet (6096 mm).

**Exception:** Segregation of less than exempt amounts of corrosive and oxidizing materials, when such materials are necessary to maintain swimming pools for Group R occupancies, may be accomplished by a minimum separation of 5 feet (1524 mm).

2. Isolating incompatible materials in storage by a noncombustible partition extending not less than 18 inches (457 mm) above and to the sides of the stored material.
3. Storing liquid and solid materials in hazardous material storage cabinets.
4. Storing compressed gases in gas cabinets or exhausted enclosures in accordance with Sections 5003.8.5 and 5003.8.6. Materials that are incompatible shall not be stored within the same cabinet or exhausted enclosure.

**5004.2 Spill control and secondary containment for liquid and solid hazardous materials.**

Tanks, rooms, buildings or areas used for the storage of liquid or solid hazardous materials shall be provided with spill control and secondary containment in accordance with Sections 5004.2.1 through 5004.2.3.

**Exceptions:**

1. Outdoor storage of containers on approved containment pallets in accordance with Section 5004.2.3.
2. Liquids that are a gas at NTP.

**5004.2.1 Spill control for hazardous material liquids.** Tanks, rooms, buildings or areas used for the storage of hazardous material liquids in excess of the lesser of the maximum allowable quantities established by Tables 5003.1.1(1) and 5003.1.1(2) or limits specifically set in Chapters 51 through 67 shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
2. Liquid-tight floors in indoor locations or similar areas in outdoor locations provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems.
4. Other approved engineered systems.

Except for surfacing, the floors, sills, dikes, sumps, and collection systems shall be constructed of noncombustible material, and the liquid-tight seal shall be compatible with the material stored. When liquid-tight sills or dikes are provided, they are not required at perimeter openings having an open-grate trench across the opening that connects to an approved collection system.

**5004.2.2 Secondary containment for hazardous material liquids and solids.** Where required by Table 5004.2.2 tanks, buildings, rooms or areas used for the storage of hazardous materials liquids or solids shall be provided with secondary containment in accordance with this section when the quantity of materials exceeds the maximum allowable quantity as established by Tables 5003.1.1(10) and 5003.1.1(2) or limits specifically set in Chapters 51 through 67.

**5004.2.2.1 Containment and drainage methods.** The tank, building, room or area shall contain or drain the hazardous materials and fire protection water through the use of one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
2. Liquid-tight floors in indoor locations or similar areas in outdoor locations provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems.
4. Drainage systems leading to an approved location.

5. Other approved engineered systems.

**5004.2.2.2 Incompatible materials.** Incompatible materials used in open systems shall be separated from each other in the secondary containment system. Incompatible materials are allowed to be combined when they have been rendered acceptable by an approved means for discharge into the public sewer.

**5004.2.2.5 Monitoring.** An approved monitoring method shall be provided to detect hazardous materials in the secondary containment system. The monitoring method is allowed to be visual inspection of the primary or secondary containment, or other approved means. Where secondary containment is subject to the intrusion of water, a monitoring method for detecting water shall be provided. Where monitoring devices are provided, they shall be connected to approved visual or audible alarms.

Leak-detecting devices must be tested annually by the owner or occupant of the property on which the devices are located. Test results shall be maintained on the premises and be available to the fire chief on request.

**5004.2.2.6 Drainage system design.** Drainage systems shall be in accordance with the City of Austin Plumbing Code and all of the following:

1. The slope of floors to drains in indoor locations, or similar areas in outdoor locations shall not be less than 1 percent.
2. Drains from indoor storage areas shall be sized to carry the volume of the fire protection water as determined by the design density discharged from the automatic fire-extinguishing system over the minimum required system design area or area of the room or area in which the storage is located, whichever is smaller.
3. Drains from outdoor storage areas shall be sized to carry the volume of the fire flow and the volume of a 24-hour rainfall as determined by a 25-year storm.
4. Materials of construction for drainage systems shall be compatible with the materials stored.
5. Incompatible materials used in open systems shall be separated from each other in the drainage system. Incompatible materials are allowed to be combined when they have been rendered acceptable by an approved means for discharge into the public sewer.
6. Drains, including overflow from secondary containment, shall terminate in an approved location away from buildings, valves, means of egress, fire access roadways, adjoining property storm drains, waterways and critical environmental features (CEF's). Tanks shall be set back at 150 feet (45,720 mm) from any recognized waterway or CEF.

**5005.1.8.1** Gas cabinets, exhausted enclosures, and exhaust ducts with a cross sectional dimension of 10 inches or greater shall be internally sprinklered.

**5306.2 Interior supply location.** Medical gases shall be stored in areas dedicated to the storage of such gases without other storage or uses. Where containers of medical gases in quantities greater than 300 ft<sup>3</sup> (8.5 m<sup>3</sup>) and less than 1500 ft<sup>3</sup> (42.5 m<sup>3</sup>) are located inside buildings, they shall be in a 1-hour exterior room, a 1-hour interior room or a gas cabinet in accordance with Section 5306.2.1, 5306.2.2, or 5306.2.3, respectively. Where containers of medical gases in excess of 1500 ft<sup>3</sup> (42.5 m<sup>3</sup>) and less than 3,000 ft<sup>3</sup> (85 m<sup>3</sup>) are located inside a building, they shall be protected by a local application fire sprinkler system in addition to the room or cabinet enclosure required by 5306.2.1, 5306.2.2 or 5306.2.3. Rooms or areas where medical gases are stored or used in quantities exceeding 3000 ft<sup>3</sup> (85 m<sup>3</sup>) per control area shall be in accordance with the International Building Code for high-hazard Group H occupancies.

**5306.2.1 One-hour exterior rooms.** A 1-hour exterior room shall be a room or enclosure separated from the remainder of the building by fire barriers constructed in accordance with Section 707 of the International Building Code or horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both, with a fire-resistance rating of not less than 1 hour. Openings between the room or enclosure and interior spaces shall be self-closing smoke- and draft-control assemblies having a fire protection rating of not less than 1 hour. Rooms shall have at least one exterior wall that is provided with at least two vents. Each vent shall not be less than 72 square inches (0.046 m<sup>2</sup>) in area. One vent shall be within 12 inches (304.8 mm) of the floor and one shall be within 12 inches (304.8 mm) of the ceiling. Rooms containing medical gases in excess of 1500 ft<sup>3</sup> (42.5 m<sup>3</sup>) and less than 3,000 ft<sup>3</sup> (85 m<sup>3</sup>) shall be provided with at least one local application automatic sprinkler to provide container cooling in case of fire.

**5306.2.2 One-hour interior room.** When an exterior wall cannot be provided for the room, the room shall be exhausted through a duct to the exterior. Supply and exhaust ducts shall be enclosed in a 1-hour-rated shaft enclosure from the room to the exterior. Approved mechanical ventilation shall comply with the International Mechanical Code and be provided at a minimum rate of 1 cubic foot per minute per square foot [0.00508 m<sup>3</sup>/(s × m<sup>2</sup>)] of the area of the room. Rooms containing medical gases in excess of 1500 ft<sup>3</sup> (42.5 m<sup>3</sup>) and less than 3,000 ft<sup>3</sup> (85 m<sup>3</sup>) shall be provided with at least one local application automatic sprinkler to provide container cooling in case of fire.

**5306.2.3 Gas cabinets.** Gas cabinets shall be constructed in accordance with Section 5003.8.6 and the following:

1. The average velocity of ventilation at the face of access ports or windows shall not be less than 200 feet per minute (61 m/s) with a minimum of 150 feet per minute (46 m/s) at any point of the access port or window.

2. Connected to a ducted exhaust system with exhaust ducts enclosed in a 1-hour shaft enclosure to the exterior.
3. Internally sprinklered when the quantity of medical gases exceeds 1500 ft<sup>3</sup> (42.5 m<sup>3</sup>).

### **5306.3 Exterior supply locations.**

Oxidizer medical gas systems located on the exterior of a building shall be located in accordance with Section 6304.2.1.

**5404.2 Outdoor storage.** Outdoor storage of corrosive materials shall be in accordance with Sections 5001, 5003, 5004 and this chapter.

**Exception:** Up to 10 gallons of corrosive liquids may be stored outside of buildings without spill control, drainage, and secondary containment provided:

1. The volume of individual containers is less than 5 gallons;
2. The containers are constructed of metal or plastic; and
3. The containers are located a minimum of 10 feet from property lines, exit openings, and storm water drains.

**5404.2.1 Above-ground outside storage tanks.** Above-ground outside storage tanks of corrosive liquids shall be provided with secondary containment in accordance with Section 5004.2.2.

**5504.3.1.1 Stationary Containers.** Stationary containers shall be separated from exposure hazards in accordance with the provisions applicable to the type of fluid contained and the minimum separation distance indicated in Table 5504.3.1.1. Storage of flammable cryogenic fluids, including liquefied natural gas (LNG), in aggregate quantities exceeding 15,000 gallon (56,781 L) water capacity is prohibited outside of a light industry (LI) zoning district except as provided in this Section.

The placement of aboveground or below ground containers of flammable cryogenic fluids, including liquefied natural gas (LNG), in aggregate quantities exceeding 15,000 gallon water (56,781 L) capacity may be considered for other locations on a case-by-case basis provided zoning issues, secondary containment, and fire exposures are satisfactorily addressed including the identification of hazard ratings in accordance with Appendix F. Where the nearest off-site exposure(s) is(are) less than 500 feet (152.4 m) from the container(s) the placement may be permitted outside of a light industry (LI) zoning district by the fire chief only after notification of owners/occupants of properties within 500 feet (152.4 m) , requesting their input in order to assess the potential effect on the community. Notice to adjacent property owners shall be accomplished in accordance with the established procedures outlined in the Land Development Code for notice of applications and administrative actions or decisions.

**5601.1.6 Jurisdiction.** This Chapter applies within the City of Austin. The doing or performing of any act in violation of this Chapter is additionally defined as a nuisance and prohibited within the City of Austin and within 5,000 feet (1,524 m) outside the city limits. The fire chief shall enforce this Article to prevent and summarily abate and remove the nuisance in accordance with the Texas Local Government Code Section 217.042. This section does not apply within any portion of the 5,000 foot (1,524 m) area that is contained within the territory of another municipality as defined in the Texas Local Government Code Section 1.005.

**5601.2.4 Financial responsibility.** Before a permit is issued, as required by Section 5601.2, the applicant shall file with the Austin Fire Department Prevention Division a public liability insurance policy in the principal sum of \$1,000,000 for personal injuries and \$500,000 for property damage. The policy shall be current and shall name the City of Austin as an additional insured for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The fire chief is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

**5601.2.5 Permit Denial.** When in the opinion of the fire chief there is a substantial danger to life, health, or property in the immediate area exposed to the blasting, fireworks display or use of pyrotechnic materials for which a permit is being requested, the request shall be denied.

**5601.2.6 License Required.** The fire chief may in the interest of public safety require that the persons engaged in the use of explosives meet specific licensing requirements (See Section 5601.9) as a condition of the permit.

**5601.2.7 Permit Application.** To obtain a permit the licensed blaster must file with the fire chief an application in writing on a form to be furnished by the fire chief. Each application must describe the proposed work, the location of the work, and the other pertinent information as may be required.

**5601.2.8 Permit Review.** The fire chief may require written comments on each permit application from the various affected City of Austin departments. When in the opinion of the fire chief the departments have a valid objection to the issuance of a permit, no permit may be approved until the objection has been resolved to the satisfaction of the fire chief.

**5601.2.9 Permit Fees.** Permits authorized by the provisions of Section 5601.2 may be issued only on payment of the appropriate fee as established by the City Council. City of Austin departments are not required to pay permit fees when engaged in the work described in this section.

**5601.4 Qualifications.** Persons in charge of magazines, blasting, fireworks display, or pyrotechnic special effect operations shall not be under the influence of alcohol or drugs

which impair sensory or motor skills, shall be at least 21 years of age, and shall demonstrate knowledge of all safety precautions related to the storage, handling or use of explosives, explosive materials or fireworks. Persons actively involved in or responsible for blasting, fireworks displays, or the production of pyrotechnic special effects or displays shall meet all applicable federal, state and local license requirements for the work or activity being performed.

#### **5601.9. Blasting Licenses.**

**5601.9.1. General.** No person may engage in the use of explosive material within the City of Austin unless that person is licensed under this article or is under the direct supervision of a person licensed under this article.

**5601.9.2.** No person may engage in the use of explosive material within the City of Austin unless that person meets the specific license requirements of the blasting permit granted by Section 5601.2, or be under the direct supervision of a person so licensed.

**5601.9.3.** A license issued under this section is valid for a period of one year.

**5601.9.4.** A license may be renewed each year on presentation of credible documentary proof that the license holder has been actively engaged in blasting operations in the preceding year.

**5601.9.5.** The license application fee and license application renewal fee shall be established by action of the City Council.

**5601.9.6.** No license may be assigned or transferred.

**5601.9.7.** After taking the Class "S" examination, a person holding a current Class "B" license may convert it to a Class "S" license at any time without payment of fee. A Class "B" license holder may convert to a Class "S" license at renewal time. The fee for this conversion will be the set Class "S" renewal fee.

**5601.9.8.** If an applicant for a blasting license fails to pass the examination, the applicant is not eligible for re-examination for a period of 30 days. If an applicant fails to pass the examination at any subsequent time, the applicant is not eligible for another examination for a period of six months following the failure. Another license application fee must be paid for each test after the third test administered.

**5601.9.9.** A Class "C" license holder may not be named on a blasting permit as the responsible blaster except on a permit for blasting operations involving uninhabited areas. An uninhabited area is a point without a person, animal, structure, or road within a distance of 500 feet.

**5601.9.10.** A Class "S" license holder is restricted to blasting operations involving swimming pools and septic systems.

**5601.9.11.** Class "B" and Class "C" license holders are restricted from blasting operations involving swimming pools and septic systems unless a Class "S" release is attached to their license. To obtain a Class "S" release, a Class "B" or Class "C" license holder must pass the Class "S" blaster's examination.

**5601.9.12.** All work performed by persons licensed under this article must be done in strict compliance with all federal and state laws and City of Austin ordinances. Violation of any law or ordinance will be cause for the fire chief to revoke or suspend a license granted under this article. Whenever the fire chief believes that any grounds for revocation or suspension of a license exist, he shall give written notice to the holder of the license. The fire chief will hold a hearing at which the license holder may appear either personally or by representative and present evidence and make statements. If the fire chief's decision is to revoke or suspend the license, the holder may appeal in accordance with Section 103.1.4 of this code.

**5601.9.13.** The fire chief may stop blasting operations in the interest of public health or safety. In addition, the fire chief may seize, take, remove or cause to be removed at the expense of the owner, explosive materials offered or exposed for sale, stored, possessed, used, or transported in violation of this code.

#### **5601.10 Blaster Classifications and Requirements.**

**5601.10.1. General Requirements for All License Classes.** Applicant must:

1. Be at least 21 years of age;
2. Be in adequate physical and mental condition to perform the work required;
3. Achieve a passing score on a test appropriate to the license class desired;
4. Be able to understand and give written and oral directions in the English language;
5. Not have been convicted of a felony or two or more misdemeanors within two years preceding the date of application for license, containing intoxication as an element of the offense.
6. Have a working knowledge of federal, state, and local laws and regulations pertaining to explosive materials;
7. Have no revoked, suspended, or terminated blaster's license, or any criminal action involving blasting activities pending in a federal, state, or municipal court of law; and,
8. Pay the license application fee in accordance with the schedule established by the City Council.

**5601.10.2.** In addition to the General Requirements, the applicant must satisfy the following requirements for the class license indicated:



#### **5601.10.2.1. Class "A."**

1. Has held a Class "B" blaster's license from the City of Austin for at least the preceding two years or the applicant has at least six years of experience in the field of transporting, storing, handling, and using explosive materials during the preceding 10 years, and submits credible documentary proof of the experience, including references.
2. Be knowledgeable in designing blasting programs, in calculating powder factors, and in the deployment and precise use of delay blasting for all phases of construction.
3. Be capable of instructing others in the explosives field.

**5601.10.2.2. Class "B."** Has held a Class "C" blasters license from the City of Austin for at least the preceding two years or has at least four years of experience in the field of transporting, storing, handling, and using explosive materials within the preceding eight years, and submits credible documentary proof of the experience, including references.

**5601.10.2.3. Class "C."** Has at least two years of experience in the field of transporting, storing, handling, and using explosive materials within the preceding four years, and submits credible documentary proof of the experience, including references.

**5601.10.2.4. Class "S."** Has held a Class "B" blasters license from the City of Austin for at least the preceding two years or has at least four years of experience in the field of transporting, storing, handling, and using explosive materials within the preceding eight years, and submits credible documentary proof of the experience, including references.

**5607.4.1** Prior written approval is required for blasting to be conducted on Sunday, legal holidays, or between the hours of 5:00 p.m. and 8:00 a.m. on other days.

**5607.5 Notification.** All blasting operations must be preceded by a preblast notification to the owners or managers of all affected premises. The range of the preblast notification shall be at the discretion of the blaster or as required by the permit. Whenever blasting is being conducted in the vicinity of utility lines or rights-of-way, the blaster shall notify the appropriate representatives of the utilities at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notices shall be confirmed with written notice.

**Exception:** In an emergency situation, the time limit shall not apply when approved.

**5607.11.1** Approved blasting machines must be used. All other equipment is prohibited.

**5607.12.1** Only blasting trunk wire of 18 gauge minimum may be used while conducting blasting operations under permits.

**5607.16** All exposed blasting cap lead wires in the ground from previous work shall be removed at the end of the work day.

**5607.17** Particle velocities may not exceed the safe levels indicated in Table 5607-A, and in no case shall particle velocities exceed 1.7 inches per second.

Monitoring of particle velocities for all blasting operations shall be carried out as required in this section. When particle velocities exceed 0.5 inches per second, blast frequencies shall also be monitored. Air over pressures shall not exceed the values of Table 5607-B. Particle velocities, frequencies, or air overpressure in excess of the prescribed limits named in this section shall require the immediate suspension of blasting and initiation of corrective measures. The fire chief may grant or require deviations from these limits as required to adequately protect the public safety.

**Table 5607-A**

Frequency (Hertz)	Maximum Peak Particle Velocity (inches per second)
Less (applied to quantity)*fewer than 2	0.2
2.00 - 2.99	0.3
3.00 - 3.99	0.4
4.00 - 19.99	0.7
20.00 - 29.99	1.0
More than 30	1.7

**Table 5607-B**

Lower Frequency Limit of the Measuring System	Maximum Air Blast Overpressure (Decibels)
0.1 Hertz, high pass system	134
2 Hertz, high pass system	133
5-6 Hertz, high pass system	129

**5607.18** A blast monitor, such as a seismic blast recording machine, is required during all blasting operations for which a permit is issued by the City of Austin. Particle velocity shall be recorded in three mutually perpendicular axes. The maximum particle velocity shall be the maximum of any of the three axes. Blast monitoring shall be performed by an independent company, experienced in planning and implementing blast monitoring programs. The blast monitoring company shall prepare monitoring plans and shall be responsible for ensuring that the monitor sensors are placed properly and that the measuring and recording instruments function properly. The monitoring company shall prepare blast monitoring reports. All monitoring reports shall carry the seal of an engineer licensed in the State of Texas and shall be retained on file by the permit holder. These reports shall be available to the City on request.

**Exception:** When, in the opinion of the fire chief, the damage to structures or buildings due to blasting operations is unlikely, the requirements of this subsection may be waived.

**5607.19** Detonating cord may be used only when approved on the blasting permit. Unauthorized use of detonating cord will result in revocation of the blasting permit and the blaster's license.

**5607.20** The fire chief shall set other conditions for the approval of the application that are necessary to adequately protect public health and safety. These conditions may include, but are not limited to, the required class of license for the responsible blaster, reduced allowable particle velocities, reduced allowable air overpressure, additional monitoring, increased insurance protection, hours of operation, type and amount of explosives used, and engineered blasting plans.

**5608.2.3 Permit fee.** The fee for this permit shall be as established by the City Council.

#### **5703.4 Spill Control, Drainage Control, and Secondary Containment.**

**5703.4.1 General.** Tanks, buildings, rooms, and areas used for storage, dispensing, use, mixing, or handling of Class I, II, and III-A liquids shall be provided with a means to control spillage and to contain or drain spillage and fire protection water as set forth in Section 5004.2.

**Exception:** Up to 10 gallons of Class I, II, and III liquids may be stored outside of buildings without spill control, drainage, and secondary containment, provided:

1. The volume of individual containers is less than 5 gallons;
2. The containers are constructed of metal or plastic; and,
3. The containers are located a minimum of 10 feet from property lines, exit openings, and storm water drains.

**5703.4.2 Spill Control.** When spill control is required, floors of rooms, buildings or areas containing flammable or combustible liquids must be sloped; constructed with sumps and

collection systems; recessed a minimum of 4 inches (101.6 mm); provided with a liquid-tight, raised sill to a minimum height of 4 inches (101.6 mm) to prevent the flow of liquids to adjoining areas; or otherwise constructed to contain a spill from the largest single container or tank. The floor and sill must be constructed of noncombustible material and must be liquid-tight. The liquid-tight seal must be compatible with the material being stored. When raised sills are provided, they are not required at perimeter openings that are provided with an open-grate trench across the opening that connects to an approved drainage control system.

### **5703.4.3 Drainage Control.**

**5703.4.3.1 General.** When drainage control is required, rooms, buildings or areas must be provided with a drainage system to direct the flow of liquids to an approved location or treatment system, or be provided with secondary containment for the flammable and combustible liquids and fire protection water.

**5703.4.3.2 Sizing.** Drains shall be sized to carry the sprinkler system design flow rate over the sprinkler system design area. The slope of drains may not be less than 1 percent. The drains must be liquid-tight. Materials used to construct drainage systems must be compatible with the stored materials.

**5703.4.3.3 Incompatible Materials.** Incompatible materials must be separated from each other in drainage systems.

**Exception:** Incompatible materials are allowed to be combined when they have been rendered acceptable for discharge by an approved means into the public sewer.

**5703.4.3.4 Neutralizers and Treatment Systems.** Drainage systems for spillage and fire-protection water which are directed to a neutralizer or treatment system shall comply with the following:

1. The system must be designed to handle the maximum worst-case spill from the single largest container plus the volume of fire protection water from the system over the minimum design area for a water flow duration of 20 minutes; and
2. Overflow control from the neutralizer or treatment system must direct liquid leakage and fire protection water to a safe location away from buildings, material, or fire-protection control valves, means of egress, adjoining properties or fire apparatus access roadways.

**5703.4.4 Secondary Containment.** When secondary containment is required:

1. Drains must be directed to a containment system or other location designed as secondary containment for flammable or combustible liquids and fire-protection water; or

2. The room, building or area must be designed to provide secondary containment of flammable and combustible liquids and fire-protection water through the use of recessed floors or liquid-tight, raised sills.

**5703.4.4.1 Sizing of Indoor Containment.** Secondary containment must be designed to retain the spill from the largest single container plus the design flow rate of the sprinkler system for the area of the room or area in which the storage is located or the sprinkler system design area, whichever is smaller. The containment capacity must be capable of containing the water flow from a discharge having a duration of 20 minutes.

**5703.4.4.2 Sizing of Outdoor Containment.** If the storage area is open to rainfall, the secondary containment shall be designed to accommodate the volume of the largest container or tank plus a 24-hour rainfall as determined by a 25-year storm.

**Exception:** Listed tanks constructed with an integral method of secondary containment.

**5703.4.4.3 Construction of Secondary Containment.** The floor and walls of the secondary containment must be constructed of noncombustible material and must be liquid-tight. The liquid-tight seal must be compatible with the material being stored. In addition to these requirements, walls must be constructed in accordance with Section 5004.2.

**5703.4.4.4 Overflow.** Overflow control from the secondary containment system must direct liquid leakage and fire-protection water to a safe location away from buildings, material or fire-protection control valves, means of egress, fire apparatus access roadways, adjoining properties, storm drains, waterways, and critical environmental features (CEFs). Tanks shall be set back at least 150 feet from any recognized waterway or CEF.

**5703.4.4.5 Monitoring and Leak Detection.**

**5703.4.4.5.1 Method.** A monitoring method capable of detecting hazardous material leakage from the primary containment into the secondary containment must be provided. When visual inspection of the primary containment is not practical, other approved means of monitoring are allowed. When double walled tanks are used to provide secondary containment for Class I and II liquids, automatic leak detection devices must be provided. When secondary containment is subject to the intrusion of water, a monitoring method for detecting the water must be provided. When monitoring devices are provided, they must be connected to distinct visual or audible alarms.

**5703.4.4.5.2 Testing.** Leak-detecting devices shall be tested annually by the owner or occupant of the property on which they were located. Test results shall be maintained on the premises and available to the chief on request.

**5704.2.9.6.1 Locations where above-ground tanks are prohibited.** Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited outside of a major industry (MI) district.

**Exceptions:**

1. The storage of up to 12,000 gallons (45,425 L) of Class I and II liquids within the limits defined as Light Industrial is allowable provided the tank is listed and labeled protected aboveground tank, and is installed in accordance with Section 5704.2.9.7 and its listing. The product shall be a noncorrosive, nonreactive liquid having a specific gravity equal to or less than 1.
2. The storage of up to 1,100 gallons (4,164 L) of Class I and II liquids at construction sites is allowed provided the tank is listed, labeled, and installed in accordance with its listing.
3. The placement of aboveground storage tanks at other locations or of greater capacity may be considered on a case-by-case basis provided zoning issues, secondary containment, and fire exposures are satisfactorily addressed. The placement of aboveground tanks of Class I and II liquids in aggregate quantities exceeding 12,000 gallons (45,425 L) water capacity, where the nearest off-site exposure(s) is (are) less than 500 feet (152.4 m) from the tank(s), may be permitted by the fire chief only after notification of owners/occupants of properties within 500 feet (152.4 m) requesting their input in order to assess the potential effect on the community. Notice to adjacent property owners shall be accomplished in accordance with the established procedures outlined in the Land Development Code for notice of applications and administrative actions or decisions.

**5704.2.10 Drainage and diking.** The area surrounding a tank or group of tanks shall be provided with drainage control or shall be diked to prevent accidental discharge of liquid from endangering adjacent tanks, adjoining property, reaching waterways, or CEF's.

**Exceptions:**

1. For tank installations having an aggregate volume of less than 50,000 gallons, the fire chief is authorized to alter or waive these requirements based on a technical report which demonstrates that such tank or group of tanks does not constitute a hazard to other tanks, waterways, CEF's, or adjoining property, after consideration of special features such as topographical conditions, nature of occupancy and proximity to buildings on the same or adjacent property, capacity, and construction of proposed tanks and character of liquids to be stored, and nature and quantity of private and public fire protection provided.

2. Drainage control and diking is not required for listed secondary containment tanks.

**5704.2.10.1 Volumetric capacity.** The volumetric capacity of the diked area shall not be less than the greatest amount of liquid that can be released from the largest tank within the diked area plus a 24-hour rainfall as determined by a 25-year storm. The capacity of the diked area enclosing more than one tank shall be calculated by deducting the volume of the tanks other than the largest tank below the height of the dike.

**5704.2.11.2 Location.** Flammable and combustible liquid storage tanks located underground shall be in accordance with all of the following:

1. Tanks shall be located with respect to existing foundations and supports such that the loads carried by the latter cannot be transmitted to any portion of the area excavated for the installation of the tank.
2. The distance from any part of an excavated area intended for the installation of a tank for storing liquids to the nearest wall of a basement, pit, cellar, or lot line shall not be less than 5 feet (1523 mm).
3. A minimum distance of 2 feet (610 mm), shell to shell, shall be maintained between underground tanks.

**5704.2.11.3 Depth and cover.** Excavation for underground storage tanks shall be made with due care to avoid undermining of foundations of existing structures. Underground tanks shall be set on firm foundations and surrounded with at least 2 feet (610 mm) of noncorrosive inert material, such as clean sand or pea gravel well tamped in place or in accordance with the manufacturer's installation instructions. Tanks shall be covered with a minimum of 2 feet (610 mm) of earth or shall be covered by not less than 1 foot (305 mm) of earth, on top of which shall be placed a slab of reinforced concrete not less than 4 inches (102 mm) thick.

When underground tanks are, or are likely to be, subjected to traffic, they shall be protected against damage from vehicles passing over them by at least 3 feet (915 mm) of earth cover, or 18 inches (457 mm) of well-tamped earth plus 6 inches (152 mm) of reinforced concrete, or 8 inches (203 mm) of asphaltic concrete. When asphaltic or reinforced concrete paving is used as part of the protection, it shall extend at least 2 feet (610 mm) horizontally beyond the outline of the tank in all directions.

For tanks built in accordance with Section 5704.2.7, the burial depth and the height of the vent line shall be such that the static head imposed at the bottom of the tank will not exceed 10 psig (68.9 kPa) if the fill or vent pipe is filled with liquid.

If the depth of cover exceeds 7 feet (2134 mm) or the manufacturer's specifications, reinforcements shall be provided in accordance with the tank manufacturer's recommendations.

Nonmetallic underground tanks shall be installed in accordance with the manufacturer's instructions. The minimum depth of cover shall be as specified above in this Section.

**5704.2.11.5.1 Inventory control.** Daily inventory records shall be maintained for underground storage tank systems. Fill and withdrawal amounts shall be reconciled monthly.

**6003.2.7 Fire-Extinguishing Systems.** Exterior storage of highly toxic solids and liquids shall be in noncombustible containers or shall comply with one of the following:

1. The storage area shall be protected by an automatic, open head, deluge fire-sprinkler system of the type and density named in NFPA 13; or
2. Storage shall be located under a canopy of noncombustible construction, with the canopied area protected by an automatic fire-sprinkler system of the type and density specified named in NFPA 13. The storage shall not be considered indoor storage.

**Exception:** Sprinklers are not required for certain water reactive materials when sprinklers would not be effective in controlling a fire.

**6101.2 Permits.** The requirements in this Chapter for permits to store or use hazardous materials within the City of Austin are applicable to a permit to store, use, handle, or dispense LP-gas, or to install or maintain an LP-gas container.

Permits shall be required as set forth in Sections 105.6. As noted in Section 105.6.20.7 of these amendments, a permit is not required for non-commercial use at a single family residence. However, the information concerning location and exposures, as outlined in the Fire Protection Criteria Manual, shall be provided to the Fire Department by the owner of the residence.

Where a single container is over 2,000-gallon (7571 L) or the aggregate capacity of containers is over 4,000 gallon (15,142 L) water capacity, the installer shall submit plans for the installation.

Distributors shall not fill an LP-gas container for which a permit is required unless a permit for installation has been issued for that location by the fire chief.

**6104.2 Maximum capacity within established limits.** The storage of LP-gas in aggregate quantities greater than 2000 gallons (7571 L) water capacity is not permitted within the city. The storage of LP-gas in aboveground or below ground containers, greater than 24 gallons (91 L) water capacity and up to a maximum of 2000 gallons (7571 L) water capacity, is prohibited outside of Major Industry (MI) or Light Industry (LI) districts. Location of containers within a Light Industry zoning district may be approved by the fire chief, subject to zoning and fire exposure concerns being satisfactorily addressed.

**Exceptions:**



1. The fire chief may approve the placement of aboveground or below ground containers for single family residential, multi-family residential or commercial occupancies on a case-by-case basis, provided the container and appurtenances are listed and installed in accordance with that listing, and issues such as zoning and fire exposures are satisfactorily addressed. Guidance for evaluating locations for acceptability is published in the Fire Protection Criteria Manual.
2. Where the nearest off-site exposure(s) is (are) less than 1,000 feet (304.8 m) from the tank(s), the fire chief may approve the placement of aboveground or below ground containers of LP-gas in aggregate quantities exceeding 2000 gallon water capacity only after notification of owners/occupants within 1,000 feet (304.8 m) of the tank(s) to assess the potential effect on the community. Notice to adjacent property owners and occupants shall be accomplished in accordance with the established procedures outlined in the Land Development Code for notice of applications and administrative actions or decisions, with the exception that notice shall be made to a distance of 1000 feet (304.8 m).

**6303.1.1.1.2.1** A maximum of 110 pounds (49.9 kg) of solid Class 3 oxidizer is allowed in nonresidential detached storage adjacent to Group R occupancies, when such materials are necessary for maintenance purposes associated with swimming pools. The oxidizers shall be stored in approved containers and in an approved manner.

1. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and having a local alarm to notify all occupants.
2. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1023.6, Exception 4.

## **CHAPTER 80**

### **REFERENCED STANDARDS**

This chapter lists the standards that are referenced in various sections of this document and the 2012 Edition of the International Fire Code, as published by the International Code Council (ICC). The standards within Chapter 80 of the published International Fire Code and amended by the City of Austin are listed herein and in the published code by the promulgating agency of the standard, the standard identification, the effective date

and title, and the section or sections of this document that reference the standard. The references specifically amended below replace the reference within the published code. All other references remain as published by the ICC. The application of the referenced standards shall be as specified in Section 102.7.

<b>NFPA</b>		National Fire Protection Association Batterymarch Park Quincy, MA 02269
Standard Reference Number	Title	Referenced In Code Section Number
13—2013	Installation of Sprinkler Systems	903.3.1.1, 903.3.2, 903.3.5.1.1, 903.3.5.2, 904.11, 905.3.4, 907.6.3, 1009.3, 3201.1, 3204.2, Table 3206.2, 3206.9, 3207.2, 3207.2.1, 3208.2.2, 3208.2.2.1, 3208.4, 3210.1, 3401.1, 5104.1, 5106.5.7, 5704.3.3.9, Table 5704.3.6.3(7), 5704.3.7.5.1, 5704.3.8.4
13D—2013	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.	903.3.1.3, 903.3.5.1.1
13R—2013	Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height.	903.3.1.2, 903.3.5.1.1, 903.3.5.1.2, 903.4
72—2013	National Fire Alarm Code	508.1.5, Table 901.6.1, 903.4.1, 904.3.5, 907.2, 907.2.6, 907.2.9.3, 907.2.11, 907.2.13.2, 907.3, 907.3.3, 907.3.4, 907.5.2.1.2, 907.5.2.2, 907.6, 907.6.1, 907.6.2, 907.6.5, 907.7, 907.7.1, 907.7.2, 907.8, 907.8.2, 907.8.5, I101.1

**B105.1 One- and two-family dwellings.** The minimum fire-flow requirements for detached one- and two-family dwellings having a fire-flow calculation area which does

not exceed 3,600 square feet (344.5 m<sup>2</sup>) and separated from adjacent homes and structures by at least 10 feet (3.05 m) shall be 1,000 gallons per minute (3785.4 L/min).

**B105.1.1** The minimum fire-flow requirements one- and two-family dwellings, including townhomes, having a fire-flow calculation area which does not exceed 3,600 square feet (344.5 m<sup>2</sup>) and separated from adjacent homes and structures by less than 10 feet (3.05 m) shall be 1,500 gallons per minute (3785.4 L/min).

**B105.1.2** Fire-flow and flow duration for dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5 m<sup>2</sup>) shall not be less than that specified in Table B105.1.

**Exception:** A reduction in required fire flow of 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system.

## **APPENDIX F**

### **HAZARDOUS MATERIALS, HAZARD RANKING**

**F101.1 Scope.** Assignment of levels of hazards to be applied to specific hazard classes as required by NFPA 704 shall be in accordance with this appendix. The appendix is based on application of the degrees of hazard as defined in NFPA 704 arranged by hazard class as for specific categories defined in Chapter 2 of the International Fire Code and used throughout.

**F101.2 General.** The hazard rating of a material is required to be included in the hazardous materials inventory and shall be determined by evaluating the potential for harm and the relative toxicity of the material or mixture of materials as a whole. NFPA Standard 704, "Standard System for the Identification of the Fire Hazards of Materials" shall be used to the extent possible in identifying degree of hazard and is declared to be part of this code as if set forth in full in this section. MSDS's, published data (Irving Sax, etc.), Table F101.2, or Appendix E shall be used when NFPA 704-2012 does not apply or provides insufficient guidance, e.g. oxidizers. See also Sections 105.6.21 and 5001.2.

As noted in Section 4.2 of NFPA 704, there could be specific reasons to alter the degree of hazard assigned to a specific material; for example, ignition temperature, flammable range or susceptibility of a container to rupture by an internal combustion explosion or to metal failure while under pressure or because of heat from external fire. As a result, the degree of hazard assigned for the same material can vary when assessed by different people of equal competence.

The hazard rankings assigned to each class represent reasonable minimum hazard levels for a given class based on the use of criteria established by NFPA 704. Specific cases of use or storage may dictate the use of higher degrees of hazard in certain cases.

**PART 2.** This ordinance takes effect on September 16, 2013.

**PASSED AND APPROVED**

\_\_\_\_\_, June 6, 2013

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§  
§ \_\_\_\_\_  
Lee Leffingwell  
Mayor

**APPROVED:** \_\_\_\_\_  
Karen M. Kennard  
City Attorney

**ATTEST:** \_\_\_\_\_  
Jannette S. Goodall  
City Clerk