

Houston Amendments to the *2021 International Fire Code*



Adopted by Ord. No. _____¹

Passed _____²

Effective _____³

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1. The City Secretary shall insert the number of the adopting ordinance.
 2. The City Secretary shall insert the date passage and approval of the adopting ordinance.
 3. The City Secretary shall insert the effective date of the adopting ordinance.

CHAPTER 1

SCOPE AND ADMINISTRATION

SECTION 101 SCOPE AND GENERAL REQUIREMENTS

[A] 101.1 Title. These regulations shall be known as the City of Houston Fire Code of [NAME OF JURISDICTION], hereinafter referred to as “this code.” and also known as the Fire Code.

The Construction Code collectively includes this volume and certain other codes, pamphlets, specifications and documents that are adopted in or by reference through the adopting ordinance, City of Houston Ordinance No. ⁴.

[A] 101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted. Appendices A, B, C, D, E, F, G, H, I, J, M and N are hereby adopted and made part of this code.

[A] 101.3 Purpose. The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations. The provisions of this code shall not apply to any activity for which local regulation is preempted by federal or state law.

[A] 101.3.1 Landlord/tenant. The terms of this code shall not be construed to alter the terms of any lease or other agreement between landlord and tenant or others relating to property that is the subject of this code; provided that no provision of any lease or other agreement shall be construed to excuse compliance with this code by any person, including the construction, maintenance, occupancy, or use of any property in violation of this code. It is the intent of this code to identify the parties this jurisdiction will hold responsible for compliance with and violations of this code, rather than to determine the rights and liabilities of persons under agreements to which this jurisdiction is not a party.

[A] 101.6 Standards. Copies of the Houston Fire Department Life Safety Bureau Standards that are referred to in this code have been placed on file in the city secretary's Office in connection with the code's adoption and shall constitute a part of this code. The standards may be inspected in the city secretary's Office or the Office of the Fire Prevention Bureau, and copies may be purchased at the fees prescribed by law.

SECTION 102 APPLICABILITY

4. The City Secretary shall insert the number of the adopting ordinance.

[A] 102.2 Administrative, operational and maintenance provisions. The administrative, operational and maintenance provisions of this code shall apply to:

1. Conditions and operations arising after the adoption of this code.
2. Existing conditions and operations not legally in existence at the time of adoption of this code.
3. Conditions that, in the opinion of the *fire code official*, constitute a distinct hazard to life or property.

This section shall be construed in a manner that is consistent with the *Existing Building Code*, Sections 102 and 114 of this code, and City of Houston Ordinance No. 78-2672.

[A] 102.2.1 Existing and annexed buildings. Buildings or structures in existence at the time of the adoption of this code may have their existing use or occupancy continued if the buildings or structures comply with the standards established in Chapter 10, Article IX, of the *City Code*, Section 102.6 of the *Building Code*, and the *Existing Building Code*. Determination of compliance shall be under the primary jurisdiction of the *building official*. Whenever the *fire code official* determines, pursuant to inspection of such a building or structure, that there exists therein a fire hazard that causes the building or structure to be dangerous to life, the *fire code official* shall initiate proceedings under Chapter 10, Article VIII, of the *City Code*, including the placarding of buildings as authorized therein. The *fire code official* shall notify the neighborhood protection official, and if the *building official* determines that the building or structure constitutes a dangerous building as defined in Chapter 10, Article IX, of the *City Code*, then the *building official* shall initiate dangerous building abatement proceedings before the hearing official or the Building and Standards Commission under the applicable provisions of Chapter 10 of the *City Code*.

[A] 102.10 Conflicting provisions. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall prevail be applicable. ~~Where, in a specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.~~ Where, in any specific instance, provisions of this code, including appendices and standards, specify different materials, different methods of construction, or other requirements that differ from those provided in the *City Code* or other volumes of the *Construction Code*, including adopted appendices, and the *building official* and the fire marshal are unable to mutually reconcile the requirements by issuing a written interpretation, then either of them may refer the matter to the General Appeals Board created under the *Building Code*, which shall conduct a review of the matter and issue a written code interpretation based upon the apparent intent of the codes involved. Notwithstanding any other provision, interpretations that are issued by the General Appeals board shall not be subject to any further appeal.

SECTION 103 CODE COMPLIANCE AGENCY

[A] 103.1 Creation of Agency. The ~~[INSERT THE NAME OF THE DEPARTMENT]~~ Life Safety and Fire Prevention Bureau of the Houston Fire Department is hereby created and the official in charge thereof shall be known as the *fire code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A] 103.2 Appointment. ~~The *fire code official* shall be appointed by the chief appointing authority of the fire department of the jurisdiction; and the *fire code official* shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the appointing authority.~~

[A] 103.3 Deputies. ~~In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the *fire code official* shall have the authority to appoint a deputy *fire code official*, other related technical officers, inspectors and other employees. Such employees shall have powers as delegated by the *fire code official*.~~

[A] 103.4.1 Legal defense. ~~Any suit or criminal complaint instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representatives of the jurisdiction until the final termination of the proceedings. The *fire code official* or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code; and any officer of the department of fire prevention, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith.~~

SECTION 104 DUTIES AND POWERS OF THE FIRE CODE OFFICIAL

[A] 104.1 General. ~~The~~ Consistent with the provisions of this code, the *fire code official* is hereby authorized to enforce the provisions of this code. The *fire code official* and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations standards in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations standards shall be in compliance with the intent and purpose of this code. Such policies, procedures, rules and regulations and shall not have the effect of waiving requirements specifically provided for in this code. A certified copy of the LSB standards shall be filed with the city secretary and additional copies shall be kept in the office of the Fire Prevention Bureau for inspection by the public. Copies shall be furnished at the fees provided by law.

The *fire code official* is authorized to enforce all ordinances of the jurisdiction and laws of the state pertaining to:

1. The prevention of fires;
2. The suppression or extinguishing 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 means, adequacy and maintenance of egress;
8. The investigation of the cause, origin and circumstances of fire and unauthorized releases of hazardous materials;

9. The posting of accurate certificates of occupancy and life safety certificates where required by the *Building Code*; and
10. The conducting of fire safety campaigns.

[A] 104.1.1 Standards. Throughout this code, the *fire code official* is authorized to grant approvals or permissions, promulgate standards, impose requirements, or exercise similar discretionary authorization over materials, personnel, activities or procedures; however, no specific standards or decision-making criteria are stated. It is intended that discretionary authorization be administered in a uniform manner, that authorizations not be unreasonably withheld, and that rules and standards be based upon the preservation of the public health, safety and welfare. The *fire code official* shall be guided by accepted principles of fire safety and shall look to this code and any standards that are adopted herein by reference for guidance. If an individual authorization is denied, the person requesting the authorization shall be advised of the reasons in writing and shall be entitled to a review of the decision by appeal to the Board of Appeals.

[A] 104.5 Notices and orders. The *As* may be required to enforce this code, the *fire code official* is authorized to issue and to serve such notices, or orders, and criminal citations, as well as administrative citations or summonses in the manner prescribed by Chapter 10, Article XVIII, of the *City Code* as are required to affect compliance with this code in accordance with Sections 112.1 and 112.2.

[A] 104.7 Liability. The *fire code official*, member of the board of appeals, officer or employee charged with the enforcement of this code, while acting for the jurisdiction, in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered civilly or criminally liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission in the discharge of official duties. Except as otherwise provided by law, the *fire code official* shall not personally be liable in damages for any act or omission arising out of any official action taken to implement and enforce the provisions of this code. Additionally, except as otherwise provided by law, the *fire code official* shall not personally be liable in damages for any act or omission taken in the course and scope of employment. Where and to the extent consistent with the provisions of Chapter 2, Article X of the *City Code*, this jurisdiction shall provide legal representation and indemnification for any suit or claim brought against the *fire code official* or any deputies because of acts or omissions performed in the implementation or enforcement of this code.

This code shall not be construed to relieve from or lessen the responsibility of any person owning, operating, or controlling any building, structure or system or any other construction for any damages to persons or property caused by defects, nor shall the Houston Fire Department Life Safety Bureau or the jurisdiction be held as assuming any such liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

[A] 104.11.1 Assistance from other agencies. Police and other enforcement agencies shall have authority to render necessary assistance in the investigation of fires and in enforcing the provisions of this code when requested to do so by the *fire code official*.

SECTION 105

PERMITS

[A] 105.1.1 Permits required. ~~A property owner or owner's authorized agent who intends to conduct an operation or business, or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the *fire code official* and obtain the required permit. Permits required by this code shall be obtained from the Fire Permit Office. The property owner or authorized agent shall obtain a permit prior to engaging in any activities, operations, practices, or functions regulated by this code and requiring a permit as listed in Section 105.5, and shall pay permit fees, as required, prior to receiving issuance of the permit. Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the *fire code official*. It shall be unlawful for any person to engage in any activities, operations, practices or functions listed in Section 105.5 for any reason without holding a current and valid permit for the activity, operation, practice or function as issued by the Fire Permit Office.~~

[A] 105.1.2 Types of permits. There shall be two types of permits as follows:

1. Operational permit, issued by the Fire Department. An operational permit allows the applicant to conduct an operation or a business for which a permit is required by Section 105.5 for either:
 - 1.1. A prescribed period.
 - 1.2. Until renewed or revoked.
2. Construction permit, issued by the *building official* in accordance with the *Building Code*. A construction permit allows the applicant to install or modify systems and equipment for which a permit is required by and in accordance with the *Building Code* Section 105.6.

[A] 105.2.2 Inspection authorized. Before a new operational permit is *approved*, the *fire code official* is authorized, but not required, to inspect the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used to determine compliance with this code or any operational constraints required. In instances where laws or regulations are enforceable by departments of the jurisdiction other than the fire department, joint approval shall be obtained from all departments concerned.

[A] 105.2.3 Time limitation of application. An application for which no permit is issued within 180 days following the date of application shall become inactive, and plans and other data submitted for review thereafter shall be returned to the applicant or destroyed by the *fire code official*. The *fire code official* is authorized to grant one or more extensions of time for additional periods not to exceed 180 days each, for a maximum of two years from the date of the original application, upon written request and justifiable cause demonstrated by the applicant. If an application for permit does not result in a permit within two years after the date of original application, the permit application shall expire. In order to renew action on an application after expiration, the applicant shall submit a new permit application and plans and shall pay a new plan review fee. ~~An application for a permit for any proposed work or operation shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been diligently prosecuted or a permit shall have been issued; except that the *fire code official* is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.~~

[A] 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 automatically become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work recommences, a new permit shall be first obtained and the fee to recommence work, if any, shall be one half the amount required for a new permit for such work, provided that changes have not been made and will not be made in the original construction documents for such work, and provided further that such suspension or abandonment has not exceeded one year. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.~~

[A] 105.3.3 Occupancy prohibited before approval. The building or structure shall not be occupied prior to the ~~fire code~~ building official issuing a permit and ~~conducting associated inspections indicating the applicable provisions of this code have been met~~ certificate of occupancy in accordance with the *Building Code* and the *Residential Code*.

Exceptions:

1. The *building official* is authorized to issue a temporary certificate of occupancy in accordance with the *Building Code* and the *Residential Code*.
2. The *fire code official*, with the joint approval of the *building official*, is authorized to permit the temporary occupancy of a building, or portion thereof, when standby personnel are provided in accordance with Section 115.

[A] 105.3.8 Validity of permit. The issuance or granting of a permit or approval of plans and specifications shall not be construed to be a *permit* for, or an approval of, any violation of any of the provisions of this code or of any other applicable laws, or any other ordinances of the jurisdiction. *Permits* presuming to give authority to violate or cancel the provisions of this code or other ordinances of the *jurisdiction* shall not be valid.

The issuance of a *permit* based on *construction documents*, operational documents, specifications, and other data shall not prevent the *fire code official* from thereafter requiring the correction of errors in the *construction documents*, operation documents, specifications, and or other data, or from preventing construction, occupancy or use of a structure when in violation of this code or of any other applicable law.

A permit and all its privileges are issued to the owner of the property for which the permit is issued, regardless of who submits the application or pays the permit fees. A permit shall be valid only for the person listed on the application as performing the work and for the scope of work identified on the permit.

A name change on an application or the existing permit must be obtained if the person performing the work listed on the application or existing permit is no longer responsible for the work performed. Provided that a refund has not been issued, the property owner has not changed, and written authority for the name change has been provided by the property owner to the *building official* and/or *fire code official*, who shall issue an amended permit. A name change fee and an administrative fee shall be charged as provided in Section 118.1 of the *Building Code* and the *city fee schedule*.

In the case of the death or dissolution of the original property owner or person performing the work listed on the existing permit, pursuant to a timely name change request within 45

calendar days after such death or dissolution, the permit will be transferred to the new property owner or amended to include the name of the new person performing the work at no fee except for the administrative fee established in Section 118.1.1. of the *Building Code* and the *city fee schedule*. Failure to apply for a name change within the requisite 45 calendar days shall subject the property owner to applicable permit fees established in Section 118 of the *Building Code* and the *city fee schedule* based on the scope of work for all remaining construction and uninspected work.

[A] 105.4 Revocation. ~~The fire code official is authorized to revoke a permit issued under the provisions of this code where it is found by inspection or otherwise~~ A permit issued under the provisions of this code may be revoked as provided herein after a hearing conducted by the Section 105 hearing official, if that hearing official finds from a preponderance of evidence cited at such hearing that there has been a false statement or misrepresentation as to the material facts in the application or *construction documents* on which the permit or approval was based, or a violation of the terms and conditions as set forth in this code, including, but not limited to, any one of the following:

1. The permit is used for a location or establishment other than that for which it was issued.
2. The permit is used for a condition or activity other than that listed in the permit.
3. Conditions and limitations for the permit, as set forth in the permit this code, have been violated.
4. There have been any false statements or misrepresentations as to the material fact in the application for permit or plans submitted or a condition of the permit.
5. The permit is used by a different person or firm than the name for which it was issued.
6. The permittee failed, refused or neglected to comply with orders or notices duly served in accordance with the provisions of this code within the time provided therein.
7. The permit was issued in error or in violation of an ordinance, regulation or this code.

[A] 105.4.1 Notice of hearing. Not later than 14 days prior to the date set for the revocation hearing by the Section 105 hearing official, the permit holder shall be given a written notice by the fire code official, which shall set forth:

1. The grounds on which the fire code official will seek revocation of the permit;
2. That a hearing has been scheduled thereon before the Section 105 hearing official and the time, date and place of the hearing; and
3. That the permit holder may appear, may be represented by counsel, may present evidence and may cross examine any witness presented by the fire code official.

[A] 105.4.2 Hearing. Except for hearings related to orders issued under Section 105.4.3, all hearings under this Section 105 shall be conducted by a Section 105 hearing official. In rendering a decision, the Section 105 hearing official shall consider only the evidence presented at the hearing. A decision of the Section 105 hearing official shall be set forth in writing, copies of which shall be served upon each party in the same manner as the notice of a right to a hearing.

[A] 105.4.3 Emergency revocation of permit. If the revocation of a permit issued under this code reasonably appears to be necessary to abate or improve a serious and immediate fire or life safety hazard, the fire code official may revoke the permit without prior notice or hearing. In such circumstance, however, the fire code official must provide the permit holder with an

opportunity for a post-revocation hearing in the manner prescribed by Chapter 10, Article IX, Division 8, of the *City Code*.

TABLE 105.5
SCHEDULE OF FIRE PERMITS

<u>SECTION REFERENCE NUMBER</u>	<u>PERMIT DESCRIPTION</u>	<u>AMOUNT OR QUANTITY</u>
<u>105.5.1</u>	<u>Additive Manufacturing</u>	
<u>105.5.2</u>	<u>Aerosol products</u>	
<u>105.5.3</u>	<u>Apparatus access, road access-control gates</u>	One Two or more
<u>105.5.4</u>	<u>Aviation facilities</u>	<u>Aircraft refueling vehicles:</u> First one Each additional Maximum <u>Aircraft service or repair occupancy</u>
<u>105.5.5</u>	<u>Carnivals, festivals, trade show exhibitions and fairs</u>	
<u>105.5.6</u>	<u>Cellulose nitrate film</u>	
<u>105.5.7</u>	<u>Combustible dust- producing operations</u>	
<u>105.5.8</u>	<u>Combustible fibers</u>	Tier 1: <u>Loose fiber storage > 100 and < 500 cu. ft.</u> <u>Baled fiber storage > 100 and < 1,000 cu. ft.</u> Tier 2: <u>Amounts greater than for Tier 1</u>
<u>105.5.9</u>	<u>Compressed gases</u>	Tier 1: <u>Carbon dioxide used in carbon dioxide enrichments systems: 875 cu. ft at NTP (100 lb)</u> <u>Carbon dioxide used in insulated liquid carbon dioxide beverage dispensing applications: 875 cu. ft at NTP (100 lb)</u> <u>Corrosive: > 200 cu. ft. and ≤1,620 cu. ft. at NTP</u> <u>Flammable (except cryogenic fluids and liquified petroleum gases): >200 cu. ft. and ≤ 2,000 cu. ft. at NTP</u> <u>Highly toxic: up to 40 cu. ft. at NTP</u> <u>Inert & simple asphyxiant: no limit > 6,000 cu. ft. at NTP (no limit, always Tier 1)</u> <u>Oxidizing (including oxygen): > 504 cu. ft. and ≤ 3,000 cu. ft. at NTP</u> <u>Pyrophoric > 100 cu. ft. at NTP</u>

<u>SECTION REFERENCE NUMBER</u>	<u>PERMIT DESCRIPTION</u>	<u>AMOUNT OR QUANTITY</u>
		<u>Toxic: up to 1,620 cu. ft. at NTP</u> <u>Tier 2:</u> <u>Amounts greater than for Tier 1</u>
<u>105.5.10</u>	<u>Covered and open mall buildings</u>	<u>Includes partial cost of Life Safety Inspection</u>
<u>105.5.11</u>	<u>Cryogenic fluids</u>	<u>Tier 1: Flammable:</u> <u>> 1 gal. and ≤ 90 gal. (inside bldg.)</u> <u>> 60 gal. and ≤ 90 gal. (outside bldg.)</u> <u>Inert:</u> <u>> 60 gal. (inside bldg.) no limit, always Tier 1</u> <u>> 500 gal. (outside bldg.) no limit, always Tier 1</u> <u>Oxidizing (includes oxygen):</u> <u>> 10 gal. and ≤ 90 gal. (inside bldg.)</u> <u>> 50 gal. and ≤ 90 gal. (outside bldg.)</u> <u>Physical or health hazard not included above: no</u> <u>limit, always Tier 1</u> <u>Tier 2:</u> <u>Amounts greater than for Tier 1</u>
<u>105.5.12</u>	<u>Cutting and welding</u>	
<u>105.5.13</u>	<u>Dry cleaning</u>	
<u>105.5.14</u>	<u>Energy storage systems</u>	
<u>105.5.15</u>	<u>Exhibits and trade shows</u>	
<u>105.5.16</u>	<u>Explosives, fireworks, and pyrotechnics</u>	
<u>105.5.17</u>	<u>Fire depository, key boxes</u>	<u>One</u> <u>Two or more</u>
<u>105.5.18</u>	<u>Flammable and combustible liquids</u>	<u>Parts 1-5, 7, 8: Tier 1</u> <u>Class IA:</u> <u>> 5 gal. and ≤ 60 gal. (inside bldg.)</u> <u>> 10 gal. and ≤ 60 gal. (outside bldg.)</u> <u>Class IB:</u> <u>> 5 gal. and ≤ 120 gal. (inside bldg.)</u> <u>> 10 gal. and ≤ 120 gal. (outside bldg.)</u> <u>Class IC:</u> <u>> 5 gal. and ≤ 180 gal. (inside bldg.)</u> <u>> 10 gal. and ≤ 180 gal. (outside bldg.)</u> <u>Class IA, IB, or IC combined amounts:</u> <u>> 5 gal. and ≤ 240 gal. (inside bldg.)</u> <u>> 10 gal. and ≤ 240 gal. (outside bldg.)</u> <u>Class II:</u> <u>> 25 gal. and ≤ 240 gal. (inside bldg.)</u>

<u>SECTION REFERENCE NUMBER</u>	<u>PERMIT DESCRIPTION</u>	<u>AMOUNT OR QUANTITY</u>
		<u>> 60 gal. and ≤ 240 gal. (outside bldg.)</u> <u>Class IIIA:</u> <u>> 25 gal. and ≤ 660 gal. (inside bldg.)</u> <u>> 60 gal. and ≤ 660 gal. (outside bldg.)</u> <u>Class IIIB:</u> <u>> 60 gal. no limit; always Tier 1 (in a tank or vessel)</u> <u>Parts 1-5, 7, 8: Tier 2</u> <u>Amounts greater than for Tier 1</u> <u>Part 6: Tank removal, installation, disposal or abandonment</u> <u>One</u> <u>Two</u> <u>Three or more</u>
<u>105.5.19</u>	<u>Floor finishing</u>	
<u>105.5.20</u>	<u>Fruit and crop ripening</u>	
<u>105.5.21</u>	<u>Fumigation and thermal insecticidal fogging</u>	
<u>105.5.22</u>	<u>Hazardous materials</u>	<u>Tier 1:</u> <u>Corrosive liquid > 55 gal. and ≤ 1,000 gal.</u> <u>Corrosive solid > 1,000 lbs. and ≤ 10,000 lbs.</u> <u>Flammable solids > 100 lbs. and ≤ 250 lbs.</u> <u>Highly toxic liquids or solids up to 20 lbs.</u> <u>Oxidizing material, Class 1:</u> <u>Liquids > 55 gal. and ≤ 8,000 lbs.</u> <u>Solids > 500 lbs. and ≤ 8,000 lbs.</u> <u>Oxidizing material, Class 2:</u> <u>Liquids > 10 gal. and ≤ 500 lbs.</u> <u>Solids > 100 lbs. and ≤ 500 lbs.</u> <u>Oxidizing material liquid or solid, Class 3:</u> <u>Liquids > 1 gal. and ≤ 20 lbs.</u> <u>Solids > 10 lbs. and ≤ 20 lbs.</u> <u>Oxidizing material, liquid or solid, Class 4: up to 2 lbs.</u> <u>Organic peroxides, liquid or solid, Class 1: up to 10 lbs.</u> <u>Organic peroxides, liquid or solid, Class 2: up to 100 lbs.</u> <u>Organic peroxides, Class 3:</u> <u>Liquid > 1 gal. and ≤ 250 lbs.</u> <u>Solid > 10 lbs. and ≤ 250 lbs.</u> <u>Organic peroxides, Class 4:</u> <u>2 gal. or 20 lbs. or more (no limit, always Tier 1)</u>

<u>SECTION REFERENCE NUMBER</u>	<u>PERMIT DESCRIPTION</u>	<u>AMOUNT OR QUANTITY</u>
		<u>Pyrophoric gases: up to 100 cu. ft.</u> <u>Pyrophoric liquid or solid: up to 8 lbs.</u> <u>Toxic liquid: > 10 gal. and ≤ 1,000 lbs.</u> <u>Toxic solid: >100 lbs. and ≤ 1,000 lbs.</u> <u>Unstable reactive, gas, Class 1: no limit (no limit, always Tier 1)</u> <u>Unstable reactive, gas, Class 2: up to 500 cu. ft.</u> <u>Unstable reactive, gas, Class 3: up to 100 cu. ft.</u> <u>Unstable reactive, gas, Class 4: up to 20 cu. ft.</u> <u>Unstable reactive, liquid & solid, Class 1:> 10 gal. or 100 lbs. (no limit, always Tier 1)</u> <u>Unstable reactive, Class 2:</u> <u>Liquid > 5 gal. and ≤100 lbs.</u> <u>Solid > 50 lbs. and ≤ 100 lbs.</u> <u>Unstable reactive, liquid & solid, Class 3: up to 10 lbs.</u> <u>Unstable reactive, liquid & solid, Class 4: up to 2 lbs.</u> <u>Water reactive, liquid & solid, Class 1: > 55 gal. or 500 lbs. (no limit, always Tier 1)</u> <u>Water reactive, Class 2:</u> <u>Liquid > 5 gal. and ≤ 100 lbs.</u> <u>Solid > 50 lbs. and ≤ 100 lbs.</u> <u>Water reactive, liquid & solid, Class 3: up to 10 lbs.</u> <u>Tier 2</u> <u>Amounts greater than for Tier 1</u> <u>Organic peroxides, liquid or solid, unclassified detonable</u>
<u>105.5.23</u>	<u>HPM facilities</u>	
<u>105.5.24</u>	<u>High-piled storage</u>	<u>Level 1: 2,500 - 20,000 sq. ft.</u> <u>Level 2: > 20,000 sq. ft.</u>
<u>105.5.25</u>	<u>Hot work operations</u>	
<u>105.5.26</u>	<u>Industrial ovens</u>	
<u>105.5.27</u>	<u>Lumber yards and woodworking plants</u>	
<u>105.5.28</u>	<u>Liquid- or gas-fueled vehicles or equipment in assembly buildings</u>	<u>One unit</u> <u>Two units</u> <u>Three or more units</u>
<u>105.5.29</u>	<u>LP-gas</u>	<u>Uses other than for mobile food units 125 gallons (473 L) aggregate water capacity</u> <u>For use on a mobile food unit</u>
<u>105.5.30</u>	<u>Magnesium</u>	<u>Tier 1:</u> <u>Storage, >10 lbs. and ≤ 250 lbs.</u>

<u>SECTION REFERENCE NUMBER</u>	<u>PERMIT DESCRIPTION</u>	<u>AMOUNT OR QUANTITY</u>
		<u>Open use, >10 lbs. and ≤ 25 lbs.</u> <u>Tier 2:</u> <u>Amount greater than for Tier 1</u>
<u>105.5.31</u>	<u>Miscellaneous combustible storage</u>	<u>One unit (50 ft³)</u> <u>Two or more units (> 50 ft³)</u>
<u>105.5.32</u>	<u>Mobile food preparation vehicles</u>	
<u>105.5.33</u>	<u>Motor fuel-dispensing facilities</u>	
<u>105.5.34</u>	<u>Open burning</u>	
<u>105.5.35</u>	<u>Reserved</u>	
<u>105.5.36</u>	<u>Open flames and candles</u>	
<u>105.5.37</u>	<u>Organic coatings</u>	<u>Tier 2 (no Tier 1):</u> <u>For operations producing > 1 gal. in one day</u>
<u>105.5.38</u>	<u>Outdoor assembly event</u>	
<u>105.5.39</u>	<u>Places of assembly</u>	<u>50-100 occupants (includes partial cost of Life Safety Inspection)</u> <u>101-299 occupants (includes partial cost of Life Safety Inspection)</u> <u>300+ occupants (includes partial cost of Life Safety Inspection)</u>
<u>105.5.40</u>	<u>Plant extraction systems</u>	
<u>105.5.41</u>	<u>Reserved</u>	
<u>105.5.42</u>	<u>Pyrotechnic special effects materials</u>	
<u>105.5.43</u>	<u>Pyroxylin plastics</u>	<u>Tier 2 (no Tier 1):</u> <u>To store or handle > 25 lbs. of pyroxylin</u>
<u>105.5.44</u>	<u>Refrigeration equipment</u>	
<u>105.5.45</u>	<u>Repair garages and motor fuel-dispensing facilities</u>	
<u>105.5.46</u>	<u>Rooftop heliports</u>	
<u>105.5.47</u>	<u>Spraying or dipping</u>	
<u>105.5.48</u>	<u>Storage of scrap tires and tire byproducts</u>	
<u>105.5.49</u>	<u>Temporary membrane structures, tents and canopies</u>	

<u>SECTION REFERENCE NUMBER</u>	<u>PERMIT DESCRIPTION</u>	<u>AMOUNT OR QUANTITY</u>
<u>105.5.50</u>	<u>Tire-rebuilding plants</u>	
<u>105.5.51</u>	<u>Waste handling</u>	
<u>105.5.52</u>	<u>Wood products</u>	
<u>105.5.53</u>	<u>Asphalt kettles and roof torching operations</u> <u>Asphalt kettles</u> <u>Ignited torches -</u> <u>(annual repair</u> <u>permit)</u> <u>Site specific permit</u>	<u>Asphalt kettles</u> <u>First one</u> <u>Each additional</u> <u>Maximum</u> <u>Ignited torches</u> <u>First one</u> <u>Each additional</u> <u>Maximum</u>
<u>105.5.54</u>	<u>Gas detection systems</u>	

[A] 105.5.3 Amusement buildings. ~~An operational permit is required to operate a special amusement building.~~ **Apparatus access, road access-control gates.** An operational permit is required to install or maintain an access-control gate on a fire apparatus access road.

[A] 105.5.5 Carnivals, festivals, trade shows, exhibitions, and fairs. An operational permit is required to conduct a carnival, festival, trade show, other exhibition, or fair. A site or floor plan showing dimensions and locations of the aisles, cooking booths, LP-gas storage, etc., shall be submitted with the permit application.

[A] 105.5.12 Cutting and welding. ~~An operational permit is required to conduct cutting or welding operations within the jurisdiction.~~ See Section 105.5.25.

[A] 105.5.15 Exhibits and trade shows. ~~An operational permit is required to operate exhibits and trade shows.~~ See Section 105.5.5.

[A] 105.5.16 Explosives, fireworks and pyrotechnics. An operational permit is required for the manufacture, storage, handling, sale or use of any quantity of *explosives*, *explosive materials*, fireworks or pyrotechnic special effects within the scope of Chapter 56.

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

[A] 105.5.17 Fire hydrants and valves. Fire depository, key boxes. An operational permit is required to install a key box or fire depository box. See Houston Fire Department LSB Standard No. 05, "Key Boxes" and LSB Standard No. 06, "Fire Depository Boxes." An operational permit is required to use or operate fire hydrants or valves intended for fire suppression purposes that are installed on water systems and accessible to a fire apparatus access road that is open to or generally used by the public.

Exception: A permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.

[EDITORIAL NOTE: TABLE 105.5.22 IS DELETED IN ITS ENTIRETY AND NOT ADOPTED BY THIS JURISDICTION.]

[A] 105.5.24 High-piled storage. An operational permit is required to use a building or portion thereof with more than ~~500–2500~~ square feet (~~46–232~~ m²), including isles, of *high-piled combustible storage*, as defined in Chapter 2. A floor plan showing the dimensions and locations of the stockpiles and aisles shall be submitted with the permit application in accordance with Chapter 2.

[A] 105.5.25 Hot work operations. An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.
2. Use of portable hot work equipment inside, or for cutting or welding in or on a building or a structure.

Exception: Work that is conducted under a construction permit.

3. Fixed-site hot work equipment, such as welding booths.
4. Hot work conducted within a hazardous fire wildfire-risk area.
5. Application of roof coverings with the use of an open-flame device.
6. ~~Where approved, the fire code official shall issue a permit to carry out a hot work program. This program allows approved personnel to regulate their facility's hot work operations. The approved personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in Chapter 35. These permits shall be issued only to their employees or hot work operations under their supervision.~~

[A] 105.5.29 LP-gas. An operational permit is required for:

1. ~~Storage and use of LP-gas: to install or maintain any LP-gas container of 125 gallons (473 L) aggregate water capacity or more or operate any tank vehicle that is used for the transportation of LP-gas. An operational permit is required to use any amount of LP-gas for demonstrations, public exhibitions, portable heating (excluding R occupancies), temporary commercial cooking or on mobile food units. For a single container with a 500-gallon (1,893 L) water capacity or for one or more containers with an aggregate 2,000 gallons (7,572 L) water capacity or more, the installer shall submit construction documents for the permit. For operational permit requirements for LP-gas storage, handling, or use, see Chapter 61.~~

Exception: A permit is not required for individual containers with a 500-gallon (1,893 L) water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons (1,893 L), serving occupancies in Group R-3.

2. ~~Operation of cargo tankers that transport LP-gas.~~

[A] 105.5.31 Miscellaneous combustible storage. ~~An operational permit is required to store in any building or on any premises in excess of 2,500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, combustible pallets, rubber tires, rubber, cork or similar combustible material. An operational permit is required to store more than 50 cubic feet (1.4 m³) of uncompacted rubbish or combustible waste.~~

[A] 105.5.35 Reserved. Open flames and torches. ~~An operational permit is required to remove paint with a torch; or to use a torch or open flame device in a wildfire risk area.~~

[A] 105.5.41 Reserved. Private fire hydrants. ~~An operational permit is required for the removal from service, use or operation of private fire hydrants.~~

Exception: ~~A permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.~~

[A] 105.5.49 Temporary membrane structures, and tents and canopies. ~~An operational permit is required to operate an air-supported temporary membrane structure, a temporary *special event structure* or a tent having an area in excess of 400-1,200 square feet (37-112 m²) or more.~~

Exceptions:

- ~~4. Tents used exclusively for recreational camping purposes.~~
- ~~2. Tents open on all sides, which comply with all of the following:~~
 - ~~2.1. Individual tents having a maximum size of 700 square feet (65 m²).~~
 - ~~2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 12 feet (3,658 mm) shall not exceed 700 square feet (65 m²) total.~~
 - ~~2.3. A minimum clearance of 12 feet (3,658 mm) to structures and other tents shall be provided.~~

[A] 105.5.53 Asphalt kettles and roof torching operations. ~~A permit is required in accordance with Sections 303 and Chapters 33 and 35.~~

[A] 105.5.54 Gas detection systems. ~~A construction permit is required for the installation of or modification to gas detection systems. Maintenance performed in accordance with this code is not considered a modification and shall not require a permit.~~

[A] 105.6 Reserved. Required construction permits. ~~The fire code official is authorized to issue construction permits for work as set forth in Sections 105.6.1 through 105.6.24.~~

[EDITORIAL NOTE: PROVISIONS OF SECTION 105.6.1 THROUGH 105.6.4 NOT SHOWN ARE DELETED IN THEIR ENTIRETY AND ARE NOT ADOPTED BY THIS JURISDICTION.]

SECTION 106 CONSTRUCTION DOCUMENTS

[A] 106.2.2 Fire protection system shop drawings. Shop drawings for the fire protection system(s) shall be submitted to indicate compliance with this code and the *construction documents*, and shall be *approved* prior to the start of installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.

Exception: With approved engineered drawings, a “go to work permit” can be issued prior to shop drawing review and approval.

106.2.5 Priority inspection. Whenever an inspection is required by the *fire code official* or whenever a person requests that the jurisdiction conduct an inspection or perform other duties specified in this code at a specific time rather than at the convenience of the jurisdiction, the service shall be scheduled outside regular working hours, or on a weekend or a holiday observed by the jurisdiction, so that the service will not interfere with the regular duties of jurisdiction personnel or cause an undue burden on jurisdiction personnel.

[A] 106.4 Retention of construction documents. One set of *construction documents* shall may be retained by the *fire code official* for a period of not less than 180 days from the date of completion of the permitted work, or as required by state or local laws. One set of *approved construction documents* shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

SECTION 107 FEES

[A] 107.1 Fees. A permit shall not be issued until the fees have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid. Fees for permits, inspections and other services under this code shall be assessed in the amounts set forth in the city fee schedule and payable to the jurisdiction. Fees are annual unless otherwise provided in this code or by regulation of the fire code official.

107.1.1 Permits. Except for permits and inspections under Section 107.1.3.2, the fee for a permit includes an initial inspection and one follow-up inspection if a follow-up inspection is deemed necessary in the judgment of the inspector.

107.1.2 Special inspection provisions.

107.1.2.1 Inspections not related to permits. Fees for inspection or other services not specified in this code and not in connection with a permit required under this code shall be based on the time expended as set forth in the *city fee schedule* for this provision.

A deposit in the full amount of the anticipated fee shall be required prior to the commencement of the inspection. Examples of the types of inspections covered by this section include, but are not limited to, inspections requested by persons who are applying for state or federal permits that have provisions for a fire inspection and compliance inspections requested in connection with real estate transactions. This fee shall be in addition to all other fees required by this code.

107.1.2.2 Priority inspections at a specific time. Fees for priority inspections or other services specified in this code at a scheduled, specific time, rather than at the convenience of the jurisdiction, shall be based on the time expended as set forth in the *city fee schedule* for this provision. This fee shall be in addition to all other fees required by this code.

107.1.3 Reinspections.

107.1.3.1 Reinspection fee. Whenever it becomes necessary to make a reinspection (after the initial inspection and one follow-up inspection under Section 107.1.1 or after the initial inspection under Section 107.1.3.2) because of faulty material, faulty workmanship, or incomplete work, or for any other reason, the permit holder shall pay for each reinspection a fee in the amount stated in the *city fee schedule*, unless a greater fee is specifically required by this code. This fee shall be in addition to all other fees required by this code.

107.1.3.2 Retesting and reinspection fees for fire protection systems and underground fuel storage tank permits. Fees for permits, inspections, and testing for fire alarm, sprinkler, and other fire protection systems under Sections 901.5 (fire alarm, sprinkler and other fire protection systems) and 5704.2.12.2 (underground fuel storage tanks) include one-time inspection and testing. If a fire protection system or underground fuel storage tank fails testing or inspection or approved plans are not on site at the time of the scheduled test, the permit holder shall pay a retest fee in the amount set forth in the *city fee schedule* for retesting and reinspection.

107.1.3.3 Inspection cancellation fee. A fee in the amount stated in the *city fee schedule* shall be assessed to the permit holder and payable to the jurisdiction if a scheduled test or inspection of a fire protection system pursuant to Section 901.5 or underground fuel storage tank pursuant to Section 5704.2.12.2 is cancelled by the permit holder at any time during the four hours prior to the time scheduled for the test or inspection.

107.1.4 Other fees.

107.1.4.1 Administrative fee. The administrative fee stated in the *city fee schedule* shall be charged upon the preparation of each permit or license issued by the fire department. This fee shall apply regardless of whether the permit or license is issued pursuant to this code or the *City Code*, and it shall be payable in addition to all other applicable fees for the permit or license. The foregoing administrative fee shall not be applicable if no other fee is provided by law for the permit or license.

107.1.4.2 Receipt. The administrative receipt fee stated in the *city fee schedule* shall be charged upon the preparation of each fee or deposit receipt issued by the Houston Permitting Center. This fee shall apply regardless of whether the fee or deposit is payable pursuant to this code or the *City Code*. This fee shall be in addition to all other applicable fees or deposits. When paid for a deposit or fee receipt, this fee shall neither constitute nor be refundable as a part of the deposit. This fee shall not apply when a permit or license is issued, and the fee specified in Section 113.1.1 above is imposed.

107.1.4.3 Correction fee. The correction fee stated in the *city fee schedule* shall be charged for correction of any license or permit in those instances where the license or permit is initially issued with an error caused by incorrect information having been furnished by the applicant. A reinspection fee shall also be imposed as provided in Section 113.1.3 when the error causes a reinspection to be required.

107.1.4.4 Replacement fee. The replacement fee stated in the *city fee schedule* shall be charged for replacement of any permit that is lost or requires replacement for other reasons, such as a change of the permit holder's name.

[A] 107.2 Schedule of permit fees. Where a permit is required, a fee for each permit or service shall be paid as required, in accordance with the *city fee schedule* as established by the applicable governing authority.

[A] 107.6 Refunds. ~~The applicable governing authority is authorized to establish a refund policy. The fire code official or building official, as applicable, may authorize a refund of any fee paid hereunder that was erroneously paid or collected due to an error by a jurisdiction employee. This provision shall not be applicable if the error occurred because of incorrect information provided by the applicant.~~

~~The fire code official or building official, as applicable, may authorize a refund of not more than 90 percent of the amount in excess of the minimum permit fee paid when no inspection has been performed under a permit issued in accordance with this code. If an inspection has been performed under the permit, no refund shall be authorized. The originally paid administrative fee shall be nonrefundable.~~

~~The fire code official or building official, as applicable, shall not authorize a refund of any fee paid except on written application filed by the original permit holder not later than 180 calendar days after the date of fee payment.~~

107.7 Exemption from permits and fees. To the extent that the state and the federal government are exempt as a matter of law from compliance with this code, neither the state nor the federal government shall be required to obtain a permit for work undertaken for, by or on the premises of either of them. However, the fees set forth in this code shall be applicable to the extent that the state or the federal government elects to obtain a permit for exempt work.

~~Except for work undertaken for, by or on the premises of the state or the federal government, permits shall be required for work undertaken for, by or on the premises of any political subdivision or unit of government (including, but not limited to, the jurisdiction) in the same manner and to the same extent as for work performed by or for other persons. The fees prescribed in this code shall be applicable to all permits issued to or for governmental agencies except counties and the jurisdiction. The jurisdiction and counties are exempted from the payment of fees. The exemption for the jurisdiction and for counties shall extend only to work to be undertaken for, by or on the premises of the jurisdiction or a county itself as a body corporate and politic. Furthermore, the exemption for a county shall not extend to work undertaken for, by or on the premises of units of government that, although affiliated with a county, have separate governmental existence from the county, including but not limited to, hospital districts and flood control districts.~~

107.8 Annual fee increase. Notwithstanding any maximum fee established by this section, the fees established in this code, as adjusted according to this provision, shall be automatically increased on the first day of each subsequent calendar year as provided in Section 1-13 of the *City Code*.

SECTION 108 INSPECTIONS

108.2.3 Requested inspections. Whenever a person requests that an inspector make an inspection or a plan analyst review plans at times other than during regular working hours, or on jurisdiction-observed holidays or weekends, the *building official* shall provide such plan analyst or inspector upon payment of all applicable fees if such would not interfere with the regular duties of the plan analyst or inspector or create an undue burden on such plan analyst or inspector. The fees for inspections and plan reviews at times outside regular working hours are stated for this provision in the *city fee schedule* and are payable in addition to all other fees required by this code.

108.2.4 Priority inspection. Whenever a person requests that an inspector be present at a site at a specific time, the jurisdiction shall provide such inspector upon payment of all applicable fees if doing so would not interfere with the regular duties of the inspector and would not cause a delay in the inspection of other work. The fee, per day, for specially requested inspections conducted during regular working hours is stated for this provision in the *city fee schedule* and is payable in addition to all other fees required by this code. A full day's fee must be paid unless the *building official* finds that the request was made as a result of an unforeseeable emergency.

108.5 Inspections of Facilities Having Hazardous Materials Processes, Piping, and Storage. All tanks and piping associated with a hazardous, combustible, flammable liquids or gases shall be maintained in a safe operation condition. Tanks and piping shall be maintained, inspected, and tested in accordance with their listing, manufacturing recommendations, or national recognized standard. Tanks, valves, and piping shall be visually inspected monthly for rust, deterioration or leakage. Documentation must be provided to the AHJ upon request.

SECTION 111 MEANS OF APPEALS

[A] 111.1 Board of appeals established. In order to hear and decide appeals of orders, from decisions or determinations made by of the *fire code official* relative to the application and interpretation of this code, as to the suitability of alternate materials and types of construction and to provide for reasonable interpretations of the provisions of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the mayor, subject to confirmation by the city council applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *fire code official*. See Appendix A.

[A] 111.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent method of protection or better form of construction safety is proposed. The board shall not have authority to waive requirements of this code or interpret the administration of this code. The *fire code official* shall take action in accordance with the decision of the board.

[A] 111.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to this code hazards of fire, explosions, hazardous conditions or fire protection systems and are not employees of the jurisdiction.

SECTION 112 VIOLATIONS

[A] 112.3 Notice of violation. Where the *fire code official* finds a building, premises, vehicle, storage facility or outdoor area that is in violation of this code, the *fire code official* is authorized to prepare a written notice of violation (“NOV”) describing the conditions deemed unsafe and, where compliance is not immediate, specifying a time for reinspection. The NOV advises the recipient of the existence of a violation of this code but does not initiate a judicial or administrative proceeding. Service of a NOV is not required prior to service of a citation or summons or to other action to enforce this code.

[A] 112.3.1 Service of NOV. The *fire code official* may serve (by personal service or by certified mail, return receipt requested) an NOV upon such person(s) as the *fire code official* reasonably believes should be notified of the violation. A notice of violation issued pursuant to this code shall be served upon the owner, the owner’s authorized agent, operator, occupant or other person responsible for the condition or violation, either by personal service, mail or by delivering the same to, and leaving it with, some person of responsibility on the premises. For unattended or abandoned locations, a copy of the NOV may such notice of violation shall be posted on the premises in a conspicuous place at or near the entrance to such premises, in which case a copy of the NOV and the notice of violation shall be mailed by certified mail, with return receipt requested or a certificate of mailing, to the owner of the property at the owner’s last known address, according to the records of the appraisal district in which the property is located of the owner, the owner’s authorized agent, or occupant.

[A] 112.3.3 Prosecution of violations. If the notice of violation is not complied with promptly, the *fire code official* is authorized to request the legal counsel of the jurisdiction 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. If a person owning, operating, or maintaining an occupancy, property, or vehicle subject to this code allows a violation of this code to exist or fails to take immediate action to abate a violation when ordered to do so by the *fire code official*, the *fire code official* is authorized to take any action authorized by this code or other applicable law.

[A] 112.4 General penalty; continuing violations. Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the *fire code official*, or of a permit or certificate used under provisions of this code, shall be guilty of a [SPECIFY OFFENSE], punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense. When in this code an act is prohibited or is made or declared to be unlawful or an offense

or misdemeanor, or wherever in this code the doing of any act is required or the failure to do any act is declared to be unlawful, and no specific penalty is provided therefor, the violation of any such provision of this code shall be punished by a fine of not less than \$500.00, nor more than \$2000.00; provided, however, that no penalty shall be greater or lesser than the penalty provided for the same offense under the laws of the state. Each day any violation of this code shall continue shall constitute a separate offense. In prosecutions under this code, the various provisions hereof that are designated as exceptions shall not be treated as exceptions within the meaning of Section 2.02 of the *Texas Penal Code*, and instead, they shall constitute defenses to prosecution within the meaning of Section 2.03 of the *Texas Penal Code*.

[A] 112.4.1 Abatement of violation. ~~In addition to the imposition of the penalties herein described, the *fire code official* is authorized to institute appropriate action to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises.~~ **License suspension/revocation.** The suspension, revocation, cancellation or denial of any license, permit or certificate by the jurisdiction shall not prohibit the imposition of any civil or criminal penalty. The imposition of a civil or criminal penalty by the jurisdiction shall not prohibit the suspension, revocation, cancellation or denial of any license, permit or certificate.

112.4.2 Enforced removal or abatement. The application of the foregoing penalty shall not be held to prevent the enforced removal or abatement of any prohibited condition.

112.4.3 Administrative adjudication of unlawful parking or stopping of vehicle. The provisions of Chapter 16, Article IV, of the *City Code* shall be applicable to the adjudication of any offense arising under this code that involves the parking or stopping of a vehicle. The fines for parking or stopping of a vehicle shall be as otherwise provided in this section or other provisions of this code as applicable, but the citation shall be issued and adjudicated in all respects as provided in Chapter 16, Article IV, of the *City Code*.

112.4.4 Referral to city attorney. In addition to other remedies authorized by this code or other applicable law, the *fire code official* may refer a violation to the city attorney for appropriate legal action to abate or restrain an activity, condition, or occupancy constituting or resulting from a violation of this code.

SECTION 113 STOP WORK ORDER

[A] 113.4 Failure to comply. ~~It shall be unlawful to fail to comply with any stop work order. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to fines established by the authority having jurisdiction.~~

SECTION 114 UNSAFE STRUCTURES OR EQUIPMENT

[A] 114.1 General authority. ~~If during the inspection of a premises, a structure, or any building system, in whole or in part, constitutes a clear and inimical threat to human life, safety or health,~~

~~the fire code official shall issue such notice or orders to remove or remedy the conditions as shall be deemed necessary in accordance with this section, and shall refer the building to the building official for any repairs, alterations, remodeling, removing or demolition required. If all or part of a property or structure violates this code and constitutes a threat to public health or safety, the fire code official shall issue such notices or orders to abate the threat as are reasonable under the circumstances. Such notices may include one or more placards posted conspicuously at the property stating that the property is a threat to public health or safety, that the fire marshal may order an evacuation of the structure or take other action against the property, and that persons who continue to use the building do so at their own risk. The wording of the placard shall be factually accurate, but no particular wording is prescribed.~~

~~[A] 114.1.2 Structural hazards. Administrative hearing under City Code. Where an apparent structural hazard is caused by the faulty installation, operation or malfunction of any of the items or devices governed by this code, the fire code official shall immediately notify the building code official in accordance with Section 114.1. The fire code official may schedule a public hearing before a hearing officer as provided by Chapter 10, Article IX, Division 2, of the City Code and request any relief authorized by the said Article IX.~~

~~[A] 114.7 Summary abatement. Where conditions exist that are deemed hazardous to life and property, the fire code official or fire department official in charge of the incident is authorized to abate summarily such hazardous conditions that are in violation of this code. If all or part of a property or structure constitutes a serious and immediate fire hazard, the fire code official or a fire department official in charge of an incident may abate or otherwise remedy the said hazard without prior notice or hearing. In such a circumstance, however, the fire code official must provide each owner, lienholder, and mortgagee of the subject property with an opportunity for a post-abatement hearing in the manner prescribed by Chapter 10, Article IX, Division 8, of the City Code.~~

SECTION 115

STANDBY PERSONNEL

115.1 General. ~~The fire code official is authorized to require that standby inspectors be provided when deemed necessary to ensure public safety due to the number of persons present, or the nature of a performance, exhibition, display, contest or activity. The fire code official is also authorized to require standby personnel as a condition for:~~

- ~~1. The approval of any permit required in Section 105.~~
- ~~2. The issuance of a temporary certificate of occupancy by the building official.~~
- ~~3. The maintenance of exits and keeping watch for fires and other safety hazards.~~
- ~~4. The use of a building where required fire protection or life safety systems are impaired or out of service, in accordance with Section 901.7.~~
- ~~5. The use of a temporary membrane structure, tent or canopy, as provided for in Section 3107.17.~~

115.2 Standby inspectors. When required by the *fire code official*, standby inspectors shall be provided to ensure compliance with this code and/or other laws, including ordinances of the jurisdiction. Standby inspectors shall be classified state-certified fire inspectors who are promoted to the Fire Prevention Bureau of the Houston Fire Department. Fees for standby inspectors shall be in accordance with the *city fee schedule*.

CHAPTER 2

DEFINITIONS

SECTION 201 GENERAL

201.3 Specific construction and terms defined in other codes. Where specific construction or terms are not addressed or defined in this code and are addressed or defined by the *City Code* or another volume of the *Construction Code* in the *International Building Code*, *International Fuel Gas Code*, *International Mechanical Code* or *International Plumbing Code*, such terms or specific constructions shall have the meanings ascribed to them as in those codes or other volumes, as applicable to the construction and proposed scope of work hereunder.

SECTION 202 GENERAL DEFINITIONS

[EDITORIAL NOTE: ALL PORTIONS OF SECTION 202 NOT SHOWN REMAIN AS SET FORTH IN THE 2021 IFC.]

ALLEY. A public or private right-of-way that is not used primarily for through traffic and that provides vehicular access to rear entrances to buildings or properties that front on an adjacent street.

AUTHORITY HAVING JURISDICTION. The City of Houston, Texas. This definition shall include the City of Houston's duly authorized representatives and shall specifically include the fire chief as the chief fire code official over the Fire Code.

BUILDING CODE. The City of Houston Building Code, as adopted and amended by this jurisdiction.

[A] BUILDING OFFICIAL. The officer or other designated authority charged with the administration and enforcement of the International Building Code director of Houston Public Works or a the duly authorized representative designated by the director to act as the chief construction code enforcement official of the jurisdiction. The term also includes the Houston Airport Systems building official who may be designated by the building official to perform Construction Code permitting and enforcement activities on Houston Airport Systems premises.

CERTIFICATE OF COMPLIANCE. A certificate stating that materials and products meet specified standards or that the scope of work under a specific permit was done in compliance with approved construction documents. Any reference in the Construction Code to a "CC", certificate of completion, or a certificate of inspection issued by this jurisdiction, is a reference to a certificate of compliance as defined herein.

CITY CODE. The Code of Ordinances, City of Houston, Texas.

CITY FEE SCHEDULE. The schedule of fees charged by the city for various permits, licenses, authorizations and services, which is maintained on the city's website.

CODE OFFICIAL. The Houston Fire Department and Building Code Enforcement employees, including but not limited to, plan analysts, field inspectors, and other technical staff charged with the administration and enforcement of this code as specifically delegated by the *Authority Having Jurisdiction*. The *code official* is authorized to approve designs, construction, equipment, materials, installations, processes, procedures, practices, and other duties necessary to administer, verify and document compliance with the *Houston Construction Code*, ordinances, and other laws and policies as specifically delegated by *fire chief*, and the *Authority Having Jurisdiction*.

[BG] CONGREGATE LIVING FACILITIES. A building or part thereof that contains ~~sleeping units where residents share bathroom and/or kitchen facilities~~ for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate living facility may be a shelter, convent, monastery, dormitory, fraternity house, or sorority house, but does not include jails, hospitals, nursing homes, hotels or boarding houses.

CONSTRUCTION CODE. Has the meaning ascribed in Section 1-2 of the *City Code*.

[BS] DANGEROUS BUILDING. Has the meaning ascribed in Section 10-371 of the *City Code*.

ELECTRICAL CODE. The *City of Houston Electrical Code*, as adopted and amended by this jurisdiction.

ENTERPRISE. A use or activity on, or of, a tract of land or within a building or structure, in whole or in part, that includes inside and outside storage or use of hazardous materials exceeding the maximum allowable quantity limits (MAQs) per control area that constitutes a Group H-1, H-2 or H-3 occupancy as described in Section 307 of the *Building Code*. The term also includes any Group H-4 occupancy, in whole or in part, that includes storage (both interior and exterior) of hazardous materials exceeding the MAQs per control area as described in the previously identified *Building Code* Section 307 if any highly toxic material is manufactured, processed, generated, stored or used. Otherwise, Group H-4 occupancies are not included. The term also does not include:

1. Any public water or wastewater treatment facility that is being operated under regulations promulgated by state or federal agencies, including but not limited to the United States Environmental Protection Agency and the Texas Commission on Environmental Quality;
2. Areas or spaces up to 500 square feet each in research labs operated under the authority of a hospital, college, or university, and classified as H-2, H-3 or H-4, with an aggregate maximum area of ten percent on each floor; or
3. Any area or space containing fuel storage for generators, fire pumps, above or underground fuel storage associated with motor fuel-dispensing facilities.

ENTERPRISE PERMIT. A current and valid license or document issued by the jurisdiction's director of planning and development authorizing the holder to operate an enterprise issued under Chapter 28, Article VII, of the *City Code*. Except where specific reference is made to a restricted permit or an unrestricted permit, the term "permit" includes a registration of a nonconforming enterprise prior to the effective date of the most current ordinance update.

EXISTING BUILDING CODE. The City of Houston Existing Building Code, as adopted and amended by this jurisdiction.

FIRE CHIEF. The chief office of the fire department serving the jurisdiction, or a duly authorized representative. Has the meaning ascribed in Section 34-53 of the City Code.

FIRE CODE. The City of Houston Fire Code, as adopted and amended by this jurisdiction.

FIRE CODE OFFICIAL. The fire chief or other designated authority. The jurisdiction's fire marshal, who is charged with the administration and enforcement of the this code, or a duly authorized representative.

[BG] HIGH-RISE BUILDING. A building with an occupied floors located more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access.

Exception: For the purpose of establishing a building as a high-rise, the uppermost floor located more than 75 feet above the lowest level of fire department access used for housing building systems mechanical equipment is exempt.

INTERNATIONAL BUILDING CODE. The City of Houston Building Code, as adopted and amended by this jurisdiction.

INTERNATIONAL ENERGY CONSERVATION CODE. The City of Houston Residential Energy Conservation Code or the City of Houston Commercial Energy Conservation Code, both as adopted and amended by this jurisdiction.

INTERNATIONAL EXISTING BUILDING CODE. The City of Houston Existing Building Code, as adopted and amended by this jurisdiction.

INTERNATIONAL FIRE CODE. The City of Houston Fire Code, as adopted and amended by this jurisdiction.

INTERNATIONAL FUEL GAS CODE. The City of Houston Plumbing Code, as adopted and amended by this jurisdiction.

INTERNATIONAL MECHANICAL CODE. The City of Houston Mechanical Code, as adopted and amended by this jurisdiction.

INTERNATIONAL PLUMBING CODE. The City of Houston Plumbing Code, as adopted and amended by this jurisdiction.

INTERNATIONAL PROPERTY MAINTENANCE CODE. Any reference herein to the International Property Maintenance Code shall be construed as referring to Chapter 10, Article IX, of the City Code, which is also known as the Houston Building Standards Code.

INTERNATIONAL RESIDENTIAL CODE. The City of Houston Residential Code adopted and amended by this jurisdiction.

INTERNATIONAL SWIMMING POOL AND SPA CODE. Any reference herein to the International Swimming Pool and Spa Code shall be construed as referring to the City of Houston Swimming Pool and Spa Code, as adopted and amended by this jurisdiction.

[A] JURISDICTION. The City of Houston. ~~The governmental unit that has adopted this code under due legislative authority.~~

MECHANICAL CODE. The City of Houston Mechanical Code, as adopted and amended by this jurisdiction.

MOBILE FOOD PREPARATION VEHICLES. Vehicles that contain cooking equipment that produce smoke or grease-laden vapors for the purpose of preparing and serving food to the public, including mobile food units as defined in Chapter 20 of the City Code. For the purpose of this code, ~~V~~vehicles intended for private recreation shall not be considered a mobile food unit or mobile food preparation vehicles.

MOBILE FOOD UNIT. Has the meaning ascribed in Section 20-18 of the City Code.

MULTI-FAMILY RESIDENTIAL STRUCTURE. A structure, including a townhouse structure, that is constructed with three or more attached single-family residences, dwelling units, apartments or condominiums.

OCCUPANCY CLASSIFICATION. For the purposes of this code, certain occupancies are defined as follows:

[EDITORIAL NOTE: PORTIONS OF THIS DEFINITION NOT SHOWN SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

[BG] Educational Group E. Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by six or more persons at any one time for educational purposes through the 12th grade.

[BG] Accessory to places of religious worship. Religious educational rooms and religious auditoriums, which are accessory to places of religious worship in accordance with Section 303.1.4 of the *International Building Code* and have *occupant loads* of less than 100 per room or space shall be classified as Group A-3 occupancies.

[BG] Group E, day care facilities. This group includes buildings and structures or portions thereof occupied by more than five children older than 2½ years of age who receive educational, supervision or *personal care services* for less than 24 hours per day.

[BG] Five or fewer children. A facility having five or fewer children receiving such care shall be classified as part of the primary occupancy.

[BG] Five or fewer children in a dwelling unit. A facility such as the above within a *dwelling unit* and having five or fewer children receiving such care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

[BG] Within places of worship. Rooms and spaces within places of worship providing such care during religious functions shall be classified as part of the primary occupancy.

Specific requirements. Daycare and educational occupancies shall not allow children of second grade or lower above the level of exit discharge unless the following provisions are met:

1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1; and

2. When children above the second grade are located on the same level, the children of the second grade or lower shall have at least two means of egress to the exterior for the exclusive use of those children.

Group H, High-hazard. High-hazard Group H occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or *health hazard* in quantities in excess of those allowed in *control areas* complying with Section 5003.8.3, based on the maximum allowable quantity limits ~~for~~ *per control areas* set forth in Tables 5003.1.1(1) and 5003.1.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this code and the requirements of Section 415 of the *International Building Code*. Hazardous materials stored or used on top of roofs or canopies shall be classified as outdoor storage or use and shall comply with this code.

Uses other than Group H. The storage, use or handling of hazardous materials as described in one or more of the following items shall not cause the occupancy to be classified as Group H, but it shall be classified as the occupancy that it most nearly resembles:

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Chapter 24 of this code and Section 416 of the *International Building Code*.
2. Wholesale and retail sales and storage of *flammable* and *combustible liquids* in mercantile occupancies conforming to Chapter 57.
3. Closed piping system containing *flammable* or *combustible liquids* or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize *combustible liquid* solvents having a *flash point* of 140°F (60°C) or higher in *closed systems* employing equipment *listed* by an *approved* testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour *fire barriers* in accordance with Section 707 of the *International Building Code* or 1-hour *horizontal assemblies* in accordance with Section 711 of the *International Building Code*, or both.
5. Cleaning establishments that utilize a liquid solvent having a *flash point* at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries systems installed in accordance with Section 1207.
10. *Corrosive* personal or household products in their original packaging used in retail display.
11. Commonly used *corrosive* building materials.
12. Buildings and structures occupied for aerosol product storage, aerosol cooking spray products or plastic aerosol 3 products shall be classified as Group S-1, provided that such buildings conform to the requirements of Chapter 51.

13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the *maximum allowable quantity per control area* in Group M or S occupancies complying with Section 5003.8.3.5.1.
14. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided that such storage conforms to the quantity limits and requirements of this code.
15. Stationary fuel cell power systems installed in accordance with this code.
16. *Capacitor energy storage systems* in accordance with this code.
17. Group B higher education laboratory occupancies complying with Section 428 of the *International Building Code* and Chapter 38 of this code.
18. Distilling or brewing of beverages conforming to the requirements of this code.
19. The storage of beer, distilled spirits and wines in barrels and casks conforming to the requirements of this code.
20. Any building owned by the jurisdiction, located on any city airport, that is leased and used by a certificated air carrier for the in-transit storage of hazardous materials for a period of time that does not exceed 72 hours from the time such hazardous material is placed in the building until it is permanently removed.

NOTES:

1. Certificated air carrier is defined as: a U.S. or foreign airline operating scheduled or non-scheduled commercial services pursuant to certificates or exemptions issued by the United States Department of Transportation pursuant to 49 USC Sections 40109, 41102, 41103, or 41302, and certificates or exemptions issued by the United States Federal Aviation Administration pursuant to 14 CFR Parts 121, 125, 129 or 135.
2. City airport is defined in Chapter 9 of the *City Code*.
3. In-transit storage is defined as: the storage of materials which will be on-loaded onto or off-loaded from an aircraft owned, leased or operated by a certificated air carrier.

[BG] Institutional Group I-4, day care facilities. Institutional Group I-4 shall include buildings and structures occupied by more than five persons of any age who receive custodial care for less than 24 hours by persons other than parents or guardians, relatives 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

[BG] Classification as Group E. A child day care facility that provides care for more than five but not more than 100 children 2½ 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 be classified as Group E.

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

[BG] Five or fewer occupants receiving care. A facility having five or fewer persons receiving custodial care shall be classified as part of the primary occupancy.

[BG] Within a place of religious worship. Rooms and spaces within places of religious worship providing such care during religious functions shall be classified as part of the primary occupancy.

Specific requirements. Daycare and educational occupancies shall not allow children of second grade or lower above the *level of exit discharge* unless the following provisions are met:

1. The building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1; and
2. When children above the second grade are located on the same level, the children of the second grade or lower shall have at least two means of egress to the exterior for the exclusive use of those children.

[BG] Residential Group R-3. Residential Group R-3 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*

Care facilities that provide accommodations for five or fewer persons receiving care

Congregate living facilities (nontransient) with 16 or fewer occupants

Boarding houses (nontransient) with 16 or fewer occupants

Convents

Dormitories

Fraternities and sororities

Monasteries

Congregate living facilities (transient) with 10 or fewer occupants

Boarding houses (transient) with 10 or fewer occupants

Lodging houses (transient) with five or fewer *guest rooms* and ~~10 or fewer occupants~~

[BG] Care facilities within a dwelling. Care facilities for five or fewer persons receiving care, including licensed and registered in home day cares, that are within a single-family dwelling are permitted to comply with the *International Residential Code* provided ~~an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or Section P2904 of the *International Residential Code*.~~

[BG] Lodging houses. Owner-occupied *lodging houses* with five or fewer guest rooms and 10 or fewer total occupants shall be permitted to be constructed in accordance with the *International Residential Code* ~~provided that an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or Section P2904 of the *International Residential Code*.~~

ONE- AND TWO-FAMILY DWELLING. An individual free-standing structure containing not more than two *dwelling units*, also referred to as a *dwelling*, duplex or *single-family dwelling* depending on the number of *dwelling units* within.

OPEN BUILDING (For Chapter 9). A building having each perimeter wall at least 80 percent open.

PLUMBING CODE. The *City of Houston Plumbing Code*, as adopted and amended by this jurisdiction.

RESIDENTIAL CODE. The *City of Houston Residential Code*, as adopted and amended by this jurisdiction.

SECTION 105 HEARING OFFICIAL. The person or persons designated in writing by the mayor of the jurisdiction to consider (a) applications by the *fire code official* to revoke permits issued under authority of Section 105; (b) appeals of denials of permits authorized by Section 105; and (c) appeals of orders issued under authority of Section 105, ***except that*** appeals of orders issued under authority of Section 105.4.3 shall be considered as provided elsewhere in this code. A Section 105 hearing official may be an employee of the Houston Fire Department, except that no person who has taken part, directly or indirectly, in any decision, order, or investigation related to the subject of the hearing shall serve as a Section 105 hearing official. A Section 105 hearing official shall act without bias for or against any hearing participant, including the jurisdiction's fire department.

SERIOUS AND IMMEDIATE FIRE HAZARD. A condition that violates this code and that in the absence of immediate action by the *fire code official* or a fire department official in charge of an incident presents a reasonable likelihood of causing serious bodily injury to a human being.

SINGLE-FAMILY DWELLING. An individual free-standing residential structure intended to serve a single-family, or household, as a *dwelling* and/or other uses authorized by the *Building Code* and *Residential Code*.

SMOKE DETECTOR-:

A listed device that senses visible or invisible particles of combustion.

A smoke alarm with sealed 10-year lithium batteries.

A sealed long-life (10 years or more) battery smoke alarm.

STANDBY INSPECTOR. A state-certified fire inspector promoted by the *fire code official* as deemed necessary to ensure public safety and compliance with this code in accordance with Section 115.

TEXAS ACCESSIBILITY STANDARDS (TAS). The accessibility standard applicable to buildings and facilities constructed within the state of Texas as promulgated by the Texas Department of Licensing and Regulation pursuant to *Texas Government Code* Chapter 469.

[A] TOWNHOUSE. A *multi-family residential structure* constructed in a group of three or more attached single-family dwelling units constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space a yard or public way on and least not less than two sides, which may or may not include lot lines or property lines separating each dwelling unit.

TRADE SHOW. A temporary commercial exhibition or show for the purpose of display of manufactured products to prospective customers. See Section 105.5.5.

SECTION 203 **DISTRICTS OF LIMITATIONS**

203.1 General. The districts referred to in this code in which the storage of explosives and blasting agents, flammable and combustible liquids, compressed and liquefied natural gases, cryogenic fluids and LP-gases may be prohibited or restricted, are hereby established.

203.1.1 District of Limitations No. 1. Beginning at the intersection of US Highway 59 with Pierce Street; thence, northerly along US Highway 59 to the centerline of Buffalo Bayou; thence, westerly following the meanders of the centerline of Buffalo Bayou to Franklin Street; thence, westerly along Franklin Street to Interstate Highway 45; thence, southerly along Interstate Highway 45 to Pierce Street; thence, easterly along Pierce Street to U. S. Highway 59, the place of beginning.

203.1.2 District of Limitations No. 2. Beginning at the intersection of Main Street with Cambridge Street; thence, southerly along Main Street to Holcombe Boulevard; thence easterly along Holcombe Boulevard to Braeswood Boulevard; thence northerly along Braeswood Boulevard to North MacGregor Drive; thence northerly along North MacGregor Drive to Cambridge Street; thence westerly along Cambridge Street to Main Street, the place of beginning.

CHAPTER 3

GENERAL REQUIREMENTS

SECTION 301 GENERAL

301.2 Permits. Permits shall be required as set forth in Section 105.5, along with the permit fees required in Section 107, in the city fee schedule for the activities or uses regulated by Sections 303, 304, 306, 307, 308, 315 and 320.

SECTION 303 ASPHALT KETTLES

303.1 Transporting. Asphalt (tar) kettles shall not be transported over any highway, road or street when the heat source for the kettle is operating. Kettle lids shall be closed and latched while in transit. Kettle contents shall be cooled to a viscosity such that they cannot spill should the kettle overturn while in transit.

Exception: Asphalt (tar) kettles in the process of patching road surfaces.

303.2 Location. Asphalt (tar) kettles shall not be located within 20 feet (6,096 mm) of any combustible material, combustible building surface or any building opening and within a controlled area identified by the use of traffic cones, barriers or other *approved* means. Asphalt (tar) kettles and pots shall not be utilized inside ~~or on the roof of~~ a building or structure. Asphalt (tar) kettles shall not be used on the roof of a building or structure, except in accordance with Houston Fire Department LSB Standard No. 11, "Roofing Operations." Roofing kettles and operating asphalt (tar) kettles shall not block *means of egress*, gates, roadways or entrances.

303.3 Location of fuel containers. Fuel containers shall be located not less than 10 feet (3,048 mm) from the burner. All portable fuel containers shall be adequately secured to prevent containers from falling or being knocked over.

Exceptions:

1. Containers properly insulated from heat or flame are allowed to be within 2 feet (610 mm) of the burner.
2. LP-gas containers connected for use shall be kept a minimum of 15 feet (4,572 mm) from burners. LP-gas containers not connected for use shall be kept a minimum of 25 feet (7,620 mm) from burners.

SECTION 304 COMBUSTIBLE WASTE MATERIAL

304.3.3 Capacity exceeding 1.5 cubic yards. Dumpsters and containers with an individual capacity of between 1.5 cubic yards [40.5 cubic feet (1.15 m³)] and 15 cubic yards [405 cubic feet (12 m³)] or more shall not be stored in buildings or placed within 5 feet (1,524 mm) of combustible walls, metals walls, building openings or combustible roof eave lines. Dumpsters and containers 15 cubic yards [405 cubic feet (12 m³)] capacity, or more, shall be a minimum of 10 feet (3,048 mm) from combustible walls, metal walls, building openings, or roof eave lines. Dumpsters and containers shall not be placed on public sidewalks, streets, or other public property. No rubbish or combustible waste shall be placed, stored, or allowed to accumulate outside of dumpsters or containers. Lids of dumpsters shall be kept closed at all times.

Exceptions:

1. Dumpsters or containers ~~that are placed inside buildings~~ in areas protected by an *approved automatic sprinkler system* installed throughout in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Storage in a structure shall not be prohibited where the structure is of Type I or IIA construction, located not less than 10 feet (3,048 mm) from other buildings and used exclusively for dumpster or container storage.
3. Dumpsters or containers that are located adjacent to buildings where the exterior area is protected by an *approved automatic sprinkler system*.
4. Dumpsters placed in the street right-of-way by government authorities on a temporary basis for neighborhood clean-up campaigns, provided neither the roadway, nor fire apparatus access, nor fire hydrants are obstructed, and no other location is practicably available.
5. Dumpsters placed on a temporary basis for demolition or construction work under a valid building construction permit, provided neither the roadway, nor fire apparatus access, nor fire hydrants are obstructed, and no other location is practicably available.
6. Approved containers placed for collection on street right-of-way as authorized by Chapter 39 of the City Code.

304.4 Dumpster information required. The name of the dumpster company or responsible party and a contact telephone number shall be placed on dumpsters and other bulk containers as provided by Section 39-97 of the City Code.

SECTION 305 IGNITION SOURCES

305.1 Clearance from ignition sources. Clearance between ignition sources, such as luminaires, heaters, flame-producing devices and combustible materials, shall be maintained in an *approved* manner. The clearance between combustible materials and unit heaters, radiant heaters, duct furnaces, flues and other heat producing devices shall be in accordance with the clearance shown on the product listing, but in no case shall be less than 3 feet (914.4 mm) in all directions, except as provided for in the Building Code.

SECTION 307

OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES

307.1 General. A person shall not kindle or maintain or authorize to be kindled or maintained any open burning or recreational fire unless conducted and approved in accordance with Sections 307.1.1 through 307.5.

Exception: When approved by the fire code official, and where consistent with state, federal and local environmental laws and regulations, open burning shall be conducted in accordance with Houston Fire Department LSB Standard No. 16, "Open Burning and Recreational Fires." A permit is required for any fire authorized under this exception.

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

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

SECTION 311

VACANT PREMISES

311.1.1 Abandoned premises. Buildings, structures and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to the last known or registered address, which persistently or repeatedly become unprotected or unsecured, which have been occupied by unauthorized persons or for illegal purposes, or which present a danger of structural collapse or fire spread to adjacent properties shall be considered to be abandoned, declared unsafe and abated by demolition or rehabilitation in accordance with the *International Property Maintenance Code* and the *International Building Code* procedures set forth in Chapter 10, Articles VIII and IX, of the City Code.

SECTION 319

MOBILE FOOD UNITS AND OTHER MOBILE FOOD PREPARATION VEHICLES

319.1 General. Mobile food units and other mobile food preparation vehicles that are equipped with appliances that produce smoke or grease-laden vapors shall comply with this section, the provisions of the Houston Health Code and Chapter 20 of the City Code, whichever is more restrictive.

319.1.1 Filling. 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 code official.

319.1.2 Spacing. The operator of a mobile food unit in, on, or in conjunction with which any amount of LP-gas is used to prepare food shall not operate such unit within 25 feet of another mobile food unit.

319.1. Transport. The fire code official is authorized and directed to take action as may be reasonably necessary to protect the public health, safety and welfare where any operator of a mobile food unit engaged in the transportation of LP-gas within the city is suspected of violating any state or federal laws, rules and regulations, as amended from time to time, specifically Title 49, Part 173.6 of the Federal Code of Regulations.

319.2 Permit required. Permits shall be required as set forth in Section 105.5 and Chapter 20 of the City Code.

No permit for the use of LP-gas in connection with a mobile food unit shall be issued unless the operator provides to the fire department a detailed description of the means and methods by which the operator will secure the LP-gas container against shifting (bracing) and will protect the LP-gas container against damage (blocking) by third parties, which means and methods are approved by the fire code official, and pays the administrative and permit fees required in Section 113. In addition to complying with the applicable requirements of this chapter, the operator of a mobile food unit in, on, or in conjunction with which LP-gas is used to cook or otherwise prepare food shall obtain from the fire department a permit for the use of LP-gas and LP-gas equipment for each mobile food unit and shall make the permit available for inspection and/or copying upon the request of any peace officer, fire code official, or health officer.

SECTION 322 **ENERGY SYSTEMS**

322.1 General. Energy systems shall be installed in accordance with this code and NFPA 70, 111, 855.

CHAPTER 4

EMERGENCY PLANNING AND PREPAREDNESS

SECTION 403 **EMERGENCY PREPAREDNESS REQUIREMENTS**

403.2.1 Seating plan and permits. In addition to the requirements of Section 404.2, the fire safety and evacuation plans for assembly occupancies, including carnivals, festivals, fair grounds, and trade show exhibitions, shall be submitted when required by the fire code official. Plans shall include a detailed seating plan, occupant load and occupant load limit. Deviations from the approved plans shall be allowed when approved by the fire code official, provided that the occupant load limit for the occupancy is not exceeded and the aisles and exit accessways remain unobstructed. Permits and plans are required to operate a place of assembly, or a carnival, festival or fair, to use liquid- or gas-fueled vehicles or equipment for competition or display inside an assembly occupancy, to use an assembly area for trade show exhibition purposes, or to use candles or other open-flame devices in assembly areas.

403.4 Group E occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. Group E occupancies shall comply with

Sections 403.4.1 through 403.4.3, and Houston Fire Department LSB Standard No. 08, “Fire Drills.”

403.4.4 Emergency evacuation drill deferral. Drills are not required during periods of inclement weather or when state mandated educational assessment testing is being conducted.

403.7.1 Group I-1 occupancies. Group I-1 occupancies shall comply with Section 403.7.1.1 through 403.7.1.7, and Houston Fire Department LSB Standard No. 08, “Fire Drills.”

403.7.1.4 Drill frequency. Emergency evacuation drills shall be conducted in accordance with Houston Fire Department LSB Standard No. 08, “Fire Drills.” In addition to the evacuation drills required in Section 405.3, staff shall participate in drills an additional two times a year on each shift. Twelve drills with all occupants shall be conducted in the first year of operation.

403.7.2 Group I-2 occupancies. Group I-2 occupancies shall comply with Sections 403.7.2.1 through 403.7.2.4, and Houston Fire Department LSB Standard No. 08, “Fire Drills.”

403.7.4 Group I-4 occupancies. Group I-4 occupancies shall conform to Sections 401 through 406 and Houston Fire Department LSB Standard No. 08, “Fire Drills.”

403.9 Group R occupancies. Group R occupancies shall comply with Sections 403.9.1 through 403.9.3.4 and Houston Fire Department LSB Standard No. 08, “Fire Drills.”

403.9.1 Group R-1 occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R-1 occupancies. Group R-1 occupancies shall comply with Sections 403.9.1.1 through 403.9.1.3. High-Rise R-1 occupancies shall also be in accordance with Houston Fire Department LSB Standard No. 07, “High-Rise Fire Safety Plans.”

403.9.2 Group R-2 occupancies. Group R-2 occupancies shall comply with Sections 403.9.2.1 through 403.9.2.3, and Houston Fire Department LSB Standard No. 08, “Fire Drills.”

403.9.3 Group R-4 occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R-4 occupancies. Group R-4 occupancies shall comply with Sections 403.9.3.1 through 403.9.3.4, and Houston Fire Department LSB Standard No. 08, “Fire Drills.”

403.9.3.4 Drill frequency. Emergency evacuation drills shall be conducted in accordance with Houston Fire Department LSB Standard No. 08, “Fire Drills.” In addition to the evacuation drills required in Section 405.3, staff shall participate in drills an additional two times a year on each shift. Twelve drills with all occupants shall be conducted in the first year of operation.

403.10.1.3 Lease plan approval. The lease plan shall be submitted to the *fire code official* for approval, and shall be maintained on site by the owner for immediate reference by responding fire service personnel and be available upon request by the *fire code official*.

403.10.1.4 Lease plan revisions. The lease plans shall be revised annually or as often as necessary to keep them current. Modifications or changes in tenants or occupancies shall not be made without prior approval of the *fire code official* and building official.

403.10.1.5 Tenant identification. Tenant identification shall be provided for secondary *exits* from occupied tenant spaces that lead to an *exit corridor* or directly to the exterior of the building. Tenant identification, using letters and numbers of durable materials, at least 2 inches (50 mm) in height, shall be posted on the exterior side of the *exit* or *exit access door* and shall identify the business name and address using plainly legible letters and numbers that contrast with their background.

~~**Exception:** Tenant identification is not required for anchor stores.~~

SECTION 404 FIRE SAFETY, EVACUATION AND LOCKDOWN PLANS

404.1 General. ~~Where required by Section 403, fire safety, evacuation and lockdown plans shall comply with Sections 404.2 through 404.4.1. The *fire code official* is authorized to require that emergency plans, employee duty assignments, employee training and fire drills be provided in buildings of any occupancy type. When required, emergency plans, employee duty assignments, employee training and fire drills shall be conducted in accordance with this chapter and Houston Fire Department LSB Standard No. 08, "Fire Drills."~~

404.2.1 Fire evacuation plans. Fire evacuation plans shall include the following:

1. Emergency egress or escape routes, and alternate routes where available and whether evacuation of the building is to be complete by selected floors or areas only or with a defend-in-place response.
2. Procedures for building employees and security personnel who, when it is safe to do so, must remain to operate critical equipment before evacuating.
3. Procedures for the use of elevators to evacuate the building where occupant evacuation elevators complying with Section 3008 of the ~~*International Building Code*~~ are provided.
4. Procedures for assisted rescue for persons unable to use the general *means of egress* unassisted.
5. Procedures for accounting for employees and occupants after evacuation has been completed.
6. Identification and assignment of personnel responsible for rescue or emergency medical aid.
7. The preferred and any alternative means of notifying occupants of a fire or emergency.
8. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.
9. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.

10. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.
11. All high-rise building evacuation plans shall conform to the Houston Fire Department LSB Standard No. 7, "High-Rise Fire Safety Plans."

Exception: Group I high-rise occupancies.

404.3 Maintenance. ~~Fire safety and~~ Emergency evacuation and lockdown plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building.

Exception: In high-rise occupancies, the emergency plans within fire depository boxes shall be reviewed and updated every six months to verify mobility impaired persons lists, emergency keys and any other data, in accordance with Houston Fire Department LSB Standard No. 06, "Fire Depository Boxes."

SECTION 405 EMERGENCY EVACUATION DRILLS

405.1 General. Emergency fire and evacuation drills complying with Sections 405.3 through 405.10 shall be conducted in an occupancy when required by the *fire code official* in accordance with Houston Fire Department LSB Standard No. 08, "Fire Drills." Evacuation drills in high-rise buildings shall be conducted in accordance with Houston Fire Department LSB Standard No. 07, "High-Rise Fire Safety Plans." Lockdown plan drills shall be conducted in accordance with the approved plan. Such drills shall not be substituted for fire and evacuation drills required by Section 405.3. ~~not less than annually where fire safety and evacuation plans are required by Section 403 or where required by the *fire code official*. Lockdown plan drills shall be conducted in accordance with the approved plan.~~ Such drills shall not be substituted for fire and evacuation drills required by section 405.3. ~~Drills shall be designed in cooperation with the local authorities.~~

405.3-Frequency. Fire drill frequency shall be in accordance with the Houston Fire Department LSB Standard No. 08, "Fire Drills" unless superseded by other regulatory agencies. ~~Required emergency evacuation drills shall be held at the intervals specified in Table 405.3 or more frequently where necessary to familiarize all occupants with the drill procedure.~~

405.7 Notification. Where required by the *fire code official*, prior notification of emergency evacuation drills shall be given to the ~~*fire code official*~~ jurisdiction immediately prior to the drill by calling the Houston Fire Department Office of Emergency Communications, Telephone: (713) 884-3143, and to the building's fire alarm monitoring service. The Fire Department and the monitoring service shall be immediately notified at the conclusion of emergency evacuation drills, in accordance with Houston Fire Department LSB Standard No. 08, "Fire Drills."

CHAPTER 5

FIRE SERVICE FEATURES

SECTION 501 GENERAL

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter.

Exception: Group R-2 occupancies when in accordance with Chapter 42 of the *City Code* for those items addressed therein. Items not specifically addressed in Chapter 42 of the *City Code* for multi-family residential developments shall be as required by this chapter or elsewhere in this code.

SECTION 503 FIRE APPARATUS ACCESS ROAD

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8 and Houston Fire Department LSB Standard No. 03, "Fire Department Access."

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6,096 mm), exclusive of shoulders, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4,115 mm).

Exceptions:

1. When approved by the *fire code official*, vertical clearance may be reduced, provided the reduction does not impair access by fire apparatus and *approved* signs are installed and maintained indicating the established vertical clearance.
2. When approved by the *fire code official*, existing access roads may have an unobstructed width of not less than 15 feet (4,572 mm), when the reduction in width will not impair access by fire department equipment, or when, for access roads in existence on June 15, 1976, the designation of a greater width would necessitate structural changes to the building.

503.3 Marking. Where required by the *fire code official*, *approved* signs or other *approved* notices or markings that include the words "NO PARKING—FIRE LANE" shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Marking of fire apparatus access roads shall be in accordance with Section 503.3 and Houston Fire Department LSB Standard No. 03, "Fire Department Access." ~~The means by which *fire lanes* are designated~~ Signs or notices shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

503.3.1 Alteration, defacing or signs unlawful. A person commits an offense if the person intentionally alters, defaces, injures, knocks down, or removes, or attempts to alter, deface, injure, knock down, or remove, any sign required under the terms of this code.

503.4 Obstruction of fire apparatus access roads. ~~Fire~~ The required width of a fire apparatus access roads, private drive, private street, or private access easement utilized for fire apparatus access shall not be obstructed in any manner, including the parking of vehicles. The minimum required widths and clearances established in Section 503.2.1 and 503.2.2 shall be maintained at all times.

Exceptions:

1. Access control gates installed in accordance with Houston Fire Department LSB Standard No. 04, "Access Control Gates." See Section 105.6 for permits.
2. Parking shall not include a vehicle that has a licensed vehicle operator in constant attendance in the vehicle, provided that the licensed operator has the ability to immediately remove the vehicle in case of an emergency.

~~**503.4.1 Traffic calming devices.** Traffic calming devices shall be prohibited unless approved by the fire code official.~~ **Removal of vehicles and obstructions.** Vehicles parked and obstructions placed in violation of this code may be removed at the vehicle owner's expense by or at the direction of the fire chief, any peace officer or the property owner in accordance with applicable provisions of the City Code and state law.

503.4.2 Presumption of ownership. In any prosecution arising under this code that relates to the unlawful parking, standing, or stopping of a motor vehicle, it shall be presumed that the person who is the registered owner of the motor vehicle is the person who parked or stopped the vehicle at the date and time of the offense charged.

503.5 Required gates or barricades. The *fire code official* is authorized to require the installation and maintenance of gates or other *approved* barricades across fire apparatus access roads, trails or other accessways, not including public streets, alleys or highways. Access control gates and barriers shall be installed and maintained in accordance with Houston Fire Department LSB Standard No. 04, "Access Control Gates." For required permits see Section 105.5.3. Electric gate operators, where provided, shall be *listed* in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be *approved* by the *fire code official* in accordance with Houston Fire Department LSB Standard No. 04, "Access Control Gates." Where security gates are installed, they shall have an *approved* means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times, or secured in the open position. Repairs shall be in accordance with original specifications and approvals. Electric gate operators, where provided, shall be *listed* in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

**SECTION 504
ACCESS TO BUILDING OPENINGS AND ROOFS**

504.1.1 Key box required. When required by the *fire code official*, security gates and barriers on access walkways shall be provided with *approved* “9-1-1” key boxes to facilitate emergency access into the property or building where emergency access is not readily available because of property or building design or because of distances from *approved* access roadways or drives to the building entrance. Key boxes shall be installed in accordance with Houston Fire Department LSB Standard No. 05, “Key Boxes.” See Section 105.5 for required permit. The key box shall be of an *approved* type listed in accordance with UL 1037.

504.3 Stairway access to roof. New buildings four or more stories ~~above-grade plane in height~~, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3-percent slope), shall be provided with a *stairway* to the roof. *Stairway* access to the roof shall be in accordance with Section 1011.12. Such *stairway* shall be marked at street and floor levels with a sign indicating that the *stairway* continues to the roof. Where roofs are used for landscaped roofs or for other purposes, *stairways* shall be provided as required for such occupancy classification. See Appendix H for stairway identification sign requirements.

SECTION 505 PREMISES IDENTIFICATION

505.1 Address identification. New and existing buildings, and occupancies therein under construction, shall be provided with *approved* address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) high with a minimum stroke width of ½ inch (12.7 mm). Where required by the *fire code official*, address identification shall be provided in additional *approved* locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained. All new and existing buildings are required to be numbered as provided in Chapter 10, Article V, of the City Code.

SECTION 506 KEY BOXES

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the *fire code official* is authorized to require a key box or a fire depository box to be installed in an *approved* location. The key box shall be of an *approved* type *listed* in accordance with UL 1037, and shall contain keys to gain necessary access as required by the *fire code official*. Key boxes shall be provided in accordance with Houston Fire Department LSB Standard No. 05, “Key Boxes” and LSB Standard No. 6, “Fire Depository Boxes.”

506.1.1 Locks. An *approved* lock shall be installed on gates or similar barriers where required by the *fire code official*. Key boxes shall be provided in accordance with Houston Fire Department LSB Standard No. 05, “Key Boxes.”

506.1.2 Key boxes for nonstandardized fire service elevator keys. Fire depository boxes for all high-rise buildings and as required by the fire code official shall be installed and

maintained in accordance with Houston Fire Department LSB Standard No. 06, "Fire Depository Boxes" as required by the fire marshal. Key boxes provided for nonstandardized fire service elevator keys shall comply with Section 506.1 and all of the following:

1. The key box shall be compatible with an existing rapid entry key box system in use in the jurisdiction and *approved by the fire code official*.
2. The front cover shall be permanently labeled with the words "FIRE DEPARTMENT USE ONLY – ELEVATOR KEYS."
3. The key box shall be mounted at each elevator bank at the lobby nearest to the lowest level of fire department access.
4. The key box shall be mounted 5 feet 6 inches (1676 mm) above the finished floor to the right side of the elevator bank.
5. Contents of the key box are limited to fire service elevator keys. Additional elevator access tools, keys and information pertinent to emergency planning or elevator access shall be permitted where authorized by the *fire code official*.
6. In building with two or more elevator banks, a single key box shall be permitted to be used where such elevator banks are separated by not more than 30 feet (9144 mm). Additional key boxes shall be provided for each individual elevator or elevator bank separated by more than 30 feet (9144 mm).

Exception: A single key box shall be permitted to be located adjacent to a *fire command center* or the nonstandard fire service elevator key shall be permitted to be secured in a key box used for other purposes and located in accordance with Section 506.1.

506.3 Fire depository box. A fire depository box shall be provided within all high-rise occupancies, as defined in the *Building Code*, or other facilities as may be required by the *fire code official*. Fire depository boxes shall be installed and maintained in accordance with Houston Fire Department LSB Standard No. 06, "Fire Depository Boxes."

506.4 Permit required. A permit is required to install and maintain a key box and/or fire depository box. See Section 105.5.

SECTION 507 FIRE PROTECTION WATER SUPPLIES

507.1.1 Adequacy of Water Supply. Where the public water supply is not adequate to meet the flow and pressure requirements for fire flow calculated in accordance with Section 507.3 and Appendix B, an alternative water supply shall be provided in accordance with Section 507.2.

507.4.1 Hose lay advancement access. The *fire code official* may require an unobstructed 5 feet by 10 feet (1,524 mm × 3,048 mm) minimum clearance along the perimeter of any building, structure or appurtenance. The clearance shall allow adequate access and coverage during emergency operations for firefighters to deploy and advance fire hose lines.

507.5 Fire hydrant systems. Fire hydrant systems shall comply with Section 507.5.1 through 507.5.6, and the Houston Fire Department LSB Standard No. 09, "Marking of Fire Hydrants."

507.5.7 Removal of vehicles parked near fire hydrants. Vehicles parked within 15 feet (4,572 mm) of a fire hydrant in violation of a state law or ordinance may be removed at the vehicle owner's expense by or at the direction of the fire chief, *fire code official* or any peace officer in accordance with applicable provisions of the *City Code* and state law.

SECTION 508 FIRE COMMAND CENTER

508.1.1 Location and access. The location and access to the *fire command center* shall be approved by the *fire code official*. The *fire command center* room shall be on the building floor having street access. Access to the room shall be either directly from the exterior, through an entrance lobby, or through a 1-hour rated corridor leading directly to the exterior.

508.1.6 Required features. The *fire command center* shall comply with NFPA 72 and shall contain the following features:

[EDITORIAL NOTE: ITEMS 1-18 SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

19. A means to automatically switch an alarm signal to an *approved* central station.
20. Two handsets per each 10 stories in building height.
21. A dry erase board, minimum size 36x60 inch, must be provided in fire command centers. A dry erase maker shall be provided.

SECTION 510 EMERGENCY RESPONDER COMMUNICATION COVERAGE (ERCC)

510.1.1 Compliance verification. New buildings require compliance verification testing by a City of Houston registered ERCC third-party special inspector. A copy of the compliance verification special inspection report shall be submitted to the *building official* for review and archiving to the project records prior to the project final approval or issuance of a *Certificate of Occupancy*.

Exception: Buildings without basements and three stories or less in height with an aggregate total building area of 50,000 square feet or less.

NOTE: ERCC special inspection reports shall be submitted by email directly to the Customer Assistance & Code Development Office of the Houston Permitting Center at: HPC-RA@houstontx.gov.

510.3 Permit required. A construction permit, when required, shall be issued by the *building official* for the installation of or modification to an ERCC system in accordance with the Construction Code for the installation of or modification to in-building, two-way emergency responder communication coverage systems and related equipment is required as specified in Section 105.6.4. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

510.4 Technical requirements. Equipment required to provide in-building, two-way emergency responder communication coverage shall be *listed* in accordance with UL 2524. Systems, components and equipment required to provide in-building, two-way emergency responder communication coverage system shall comply with Sections 510.4.1 through 510.4.2.98.

510.4.2.1 Amplification systems and components. Buildings and structures that cannot support the required level of in-building, two-way emergency responder communication coverage shall be equipped with an internal multiple system with FCC Type Accepted Bi-Directional Amplifiers as required to encompass the frequency ranges as specified in Section 510.1, or as subsequently established by the City of Houston and be equipped with systems and components to enhance the radio signals and achieve the required level of in-building, two-way emergency responder communication coverage specified in Sections 510.4.1 through 510.4.1.3. In-building, two-way emergency responder communication systems utilizing radio-frequency-emitting devices and cabling shall be *approved* by the *fire code official*. Prior to installation, all RF-emitting devices shall have the certification of the radio licensing authority and be suitable for public safety use. Donor antennas, when utilized, shall be optimized for directional reception from a single transmitter site.

510.4.2.4 Signal booster requirements. If used, signal boosters shall meet the following requirements:

1. All signal booster components shall be contained in a National Electrical Manufacturer's Association (NEMA) 4-type waterproof cabinet.
2. Battery systems used for the emergency power source shall be contained in a NEMA-3R or higher-rated cabinet.
3. Equipment shall have FCC or other radio licensing authority certification and be suitable for public safety use prior to installation.
4. Where a donor antenna exists, isolation shall be maintained between the donor antenna and all inside antennas to not less than 20dB greater than the system gain under all operating conditions. Donor antennas shall be omnidirectional to take advantage of the City of Houston simulcast radio architecture.
5. Active RF-emitting devices used for in-building, two-way emergency responder communication coverage systems shall have built-in oscillation detection and control circuitry. Devices will need to be a bandpass or able to hand 42 downlink and 42 uplink channels with room for expansion. For required frequencies, the installer will need to contact the City of Houston Radio Communication Services.

NOTE: Contact City of Houston HITS – Radio Communications Services for specific frequencies of specific project locations.

City of Houston HITS – Radio Communications Services
2318 Greens Road, Houston, Texas 77032

Attn: NOC
Office: 832-393-0399
Email: RCSNETWORKOPS@houstontx.gov

6. The installation of amplification systems or system that operate on or provide the means to cause interference on any in-building, two-way emergency responder communication coverage network shall be coordinated and *approved* by the *fire code official*.

510.4.2.9 Minimum qualifications of designer. An amplification system shall be designed, sealed, signed and dated by a registered professional engineer licensed by the State of Texas.

510.5.3 Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:

1. A valid, current FCC-issued general radio operators license “GROL”.
2. Certification of in-building system training issued by an *approved* organization or *approved* school, or a certificate issued by the manufacturer of the equipment being installed.

These qualifications shall not be required where demonstration of adequate skills and experience satisfactory to the *fire code official* is provided.

510.5.4 Acceptance test procedure. Where an in-building, two-way emergency responder communication coverage system is required, and upon completion of installation, the building *owner* shall have the radio system tested to verify that two-way coverage on each floor of the building is not less than 95 percent. Testing shall be conducted by personnel with minimum qualifications as specified in Section 510.5.3. The building owner shall retain copies of all test records at the inspected premises. A photocopy of the test inspection report shall be submitted to the *building official*. If the building coverage fails to comply with the minimum requirements of this code, repairs shall be made and additional testing conducted until the minimum requirements have been met. The test procedure shall be conducted as follows:

1. Each floor of the building shall be divided into a grid of 20 approximately equal test areas.
2. The test shall be conducted using a calibrated, and approved, portable radio of the latest brand and model used by the *agency* talking through the *agency's* radio communications system or equipment approved by the *fire code official*.
3. Failure of more than one test area shall result in failure of the test.
4. In the event that two of the test areas fail the test, in order to be more statistically accurate, the floor shall be permitted to be divided into 40 equal test areas. Failure of not more than two nonadjacent test areas shall not result in failure of the test. If the system fails the 40-area test, the system shall be altered to meet the 95-percent coverage requirement.
5. A test location approximately in the center of each test area shall be selected for the test, with the radio enabled to verify two-way communications to and from the outside of the building through the public *agency's* radio communications system. Once the test location has been selected, that location shall represent the entire test area. Failure in the selected test location shall be considered to be a failure of that test area. Additional test locations shall not be permitted.

6. The gain values of all amplifiers shall be measured and the test measurement results shall be kept on file with the building *owner* so that the measurements can be verified during annual tests. In the event that the measurements results become lost, the building *owner* shall be required to rerun the acceptance test to reestablish the gain values.
7. As part of the installation a spectrum analyzer or other suitable test equipment, calibrated within the previous 12 months, shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at the time of installation and subsequent annual inspections.
8. Systems shall be tested using two portable radios simultaneously conducting subjective voice quality checks. One portable radio shall be positioned not greater than 10 feet (3048 mm) from the indoor antenna. The second portable radio shall be positioned at a distance that represents the farthest distance from any indoor antenna. With both portable radios simultaneously keyed up on different frequencies within the same band, subjective audio testing shall be conducted and comply with DAQ levels as specified in Sections 510.4.1.1 and 510.4.1.2.

Exception: The minimum coverage of each floor may be reduced from 95 to 90 percent where the stairwells and elevator lobbies are included in the 90-percent coverage area.

510.6 Maintenance. The in-building two-way emergency responder communication coverage system shall be maintained operational at all times in accordance with Sections 510.6.1 through 510.6.4 and shall be replaced or repaired where defective. The property owners shall be responsible for necessary repairs, replacement, and/or upgrades to the system as directed by the fire code official.

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

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

At the conclusion of the special inspection testing, a photocopy of the report, which shall verify compliance with Section 510.5.4, shall be electronically submitted to the Customer Assistance & Code Development Office of the Houston Permitting Center at: HPC-RA@houstontx.gov. The original shall be kept on site and available for review upon request by the fire code official.

CHAPTER 6

BUILDING SERVICES AND SYSTEMS

SECTION 603 ELECTRICAL EQUIPMENT, WIRING AND HAZARDS

603.11 Protection of lighting fixtures and devices. All permanent or temporary lighting fixtures and devices used in mechanical spaces, service areas, exit accessways, stairways, and parking garages shall be provided with an approved protective device designed to prevent accidental breakage, contact with readily ignitable materials, or creation of electrical shock hazard.

Exceptions:

1. Listed devices approved for use in hazardous locations in accordance with the Electrical Code.
2. Listed incandescent bulbs or fluorescent tubes provided with approved shatter- or break-resistive protective coatings.
3. Listed devices for exterior use, with approved weather resistant bulbs.
4. Fixtures so located as to be suitably protected from accidental damage or breakage.

SECTION 604 ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS

[BE] 604.4 Emergency signs. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall read: IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS. The lettering shall be at least ½ inch (13 mm) block letters on a background of contrasting color so that the lettering is clearly visible.

Exceptions:

1. The emergency sign shall not be required for elevators that are part of an accessible means of egress complying with Section 1009.4.
2. The emergency sign shall not be required for elevators that are used for occupant self-evacuation in accordance with Section 3008 of the International Building Code.

604.6.1 Elevator key location. Keys for the elevator car doors and fire-fighter service keys shall be kept in an approved location in accordance with Houston Fire Department LSB Standard No. 06, "Fire Depository Boxes" for immediate use by the fire department.

604.6.2 Standardized fire service elevator keys. Buildings with elevators equipped with Phase I emergency recall, Phase II emergency in-car operation, or a fire service access elevator shall be equipped to operate with a standardized fire service elevator key approved by the fire code official, or a standardized key in accordance with ASME A17.1/CSA B44 Houston Fire Department LSB Standard No. 06, "Fire Depository Boxes." See Section 506.1.

The *approved* fire service elevator key shall be available for immediate use by the fire department.

Exception: The *owner* shall be permitted to place the building's nonstandardized fire service elevator keys in a key box installed in accordance with Section 506.1.2.

SECTION 605 FUEL-FIRED APPLIANCES

605.4.2.5 Installation. Tanks and piping systems shall be installed in accordance with NFPA 37 and UL 2200 standards ~~Section 915 and Chapter 13, both of the *International Mechanical Code*~~, as applicable.

605.9 Gas meters and piping.

605.9.1 Protection of meters and piping. Above-ground gas meters, regulators and piping subject to damage shall be protected by a barrier complying with Section 312 or otherwise protected in an *approved* manner.

605.9.2 Testing of piping and systems.

605.9.2.1 Routine testing. All gas piping systems in Groups A, E, I, R-1 and R-2 occupancies shall be tested in accordance with the *Plumbing Code* at least every five years. The owner shall maintain a written record onsite at a location designated by the *fire code official* and it shall be made available upon request.

605.9.2.2 Testing for leaks. The *fire code official* is authorized to require a test of the gas piping system in any building or structure, of any occupancy type, when there is reason to believe a leak may exist in the system.

SECTION 608 MECHANICAL REFRIGERATION

608.10 Remote controls. Where flammable refrigerants are used and compliance with ~~Section 4406 Chapter 11~~ of the *International Mechanical Code* is required, remote control of the mechanical equipment and appliances located in the machinery room as required by Sections 608.10.1 and 608.10.2 shall be provided at an *approved* location immediately outside the machinery room and adjacent to its principal entrance.

608.17 Electrical equipment. Where refrigerants of Groups A2, A3, B2 and B3, as defined in the *International Mechanical Code*, are used, refrigeration machinery rooms shall conform to the Class I, Division 2 hazardous location classification requirements of NFPA 70.

Exception:

1. Ammonia machinery rooms that are provided with ventilation in accordance with ~~Section 4404.4.2~~ 1102.2 of the *International Mechanical Code*.
2. Machinery rooms for systems containing Group A2L refrigerants that are provided with ventilation in accordance with Section 608.18.

CHAPTER 7

FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 DOOR AND WINDOW OPENINGS

705.2.6 Testing. Horizontal and vertical sliding and rolling *fire doors* shall be inspected and tested annually to confirm proper operation and full closure. Fire doors, fire dampers, and other similar equipment shall be inspected and tested in accordance with Houston Fire Department LSB Standard No. 02, "Inspection and Testing of Fire Protection and Life-Safety Equipment." The owner shall maintain Records of inspections and testing onsite at a location designated by the *fire code official* shall be maintained.

SECTION 707 CONCEALED SPACES

707.1 Fireblocking and draftstopping. Required *fireblocking* and draftstopping in combustible concealed spaces shall be maintained to provide continuity and integrity of the construction. Including attics in existing Group R-2 apartments, the *fire code official* is authorized to require installation of draftstops in Group R-2 occupancies in accordance with Section 718 of the *Building Code* that do not exceed four stories in height in any building undergoing roof work that involves replacement of more than 25 percent of the roof sheathing. The attic space shall be subdivided by draftstops into areas not exceeding 3,000 square feet (279 m²) or above every two dwelling units whichever is smaller.

CHAPTER 9

FIRE PROTECTION SYSTEMS

SECTION 901 GENERAL

901.1 Scope. The provisions of this chapter and the Building Code shall specify where *fire protection* and *life safety systems* are required and shall apply to the design, installation, inspection, operation, testing and maintenance of all *fire protection* and *life safety systems*.

901.2 Construction documents. The *fire code official* shall have the authority to require *construction documents* and calculations for ~~all *fire protection* and *life safety systems*~~ and to ~~require permits be issued~~ for the installation, rehabilitation or modification of any *fire protection* and *life safety systems*. *Construction documents* for *fire protection* and *life safety systems* shall be submitted for review and approval in accordance with the *Building Code* prior to system installation.

901.3 Permits. Permits shall be required as set forth in Sections 105.5 and 105.6 of the *Building Code*.

901.4.6 Appearance of equipment. Any device that has the physical appearance of life safety or fire protection equipment but that does not perform that life safety or fire protection function shall be prohibited. Systems or devices that are permanently out of service or any non-required life safety system or fire protection system that no longer functions as originally installed shall be removed or the appearance changed so as not to be mistaken for functioning life safety or fire protection equipment.

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

The location of all fire department connections shall be *approved* by the *fire code official*. Inspection of fire-extinguishing systems shall be conducted by the *fire code official*, upon payment of all applicable fees stated in the *city fee schedule*. The inspection and reports shall be forwarded to the *building official* for posting to occupancy records. No building or structure requiring a fire-extinguishing system shall be permanently occupied without first obtaining the *fire code official's* approval.

901.5.1 Occupancy. It shall be unlawful to occupy any portion of a building or structure until the required *fire protection* and *life safety systems* have been tested and *approved*.

Exception: The *building official* shall have the authority to issue a temporary certificate of occupancy for the use of a portion or portions of a building prior to the completion of the entire structure.

901.6.1 Standards. *Fire protection systems* shall be inspected, tested and maintained in accordance with the referenced standards *listed* in Table 901.6.1 and in accordance with

Houston Fire Department LSB Standard No. 02, "Inspection and Testing of Fire Protection and Life-Safety Equipment" and LSB Standard No. 01, "Installation and Maintenance of Portable Fire Extinguishers".

901.7 Systems out of service. Where a required life safety or fire protection system is out of service, the fire department and the *fire code official* shall be notified immediately in accordance with Section 901.12 and, where required by the *fire code official*, either the building shall be either evacuated or an approved fire watch, or one or more standby inspectors, in accordance with Section 115, shall be provided for all occupants left unprotected by the shutdown until the life safety or fire protection system has been returned to service.

Where utilized, fire watches shall be provided with not less than one *approved* means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

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

901.11 Outside sprinkler control valve. Outside control in the form of a wall post indicator valve or post indicator valve shall be provided for each sprinkler system. An indicating-type gate valve shall be required when sprinkler systems are supplied by the standpipe system.

901.12 Notification of fire department. The Houston Fire Department Office of Emergency Communications shall be immediately notified by telephone, at (713) 884-3143, whenever the required *fire protection* or *life safety system* is placed out of service for emergency or non-schedule repairs, replacements, or service. The Fire Department shall be provided with the following information:

1. Correct street address and name of the building or structure.
2. The caller's name and contact phone number.
3. The identity of system that is impaired or shut down, and if known, the nature of the impairment or failure.
4. Estimated length of time system is to be out of service for repairs.

The Fire Department Office of Emergency Communications shall again be notified when the system is restored to normal operational status.

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

903.1.2 Standby Personnel. In other than Group H occupancies, in lieu of an *automatic sprinkler system* for a temporary use occupancy, the applicant may agree to provide a fire watch program under which one or more fire inspectors of this jurisdiction will be present on the premises at all times when the occupancy is open for use. The *fire code official* shall promulgate regulations regarding the qualifications, deployment and numbers of fire inspectors, which regulations shall be predicated upon public safety for the purpose of

preventing fires and allowing safe egress in the event of a fire. The jurisdiction shall not be obligated to provide fire inspectors for this purpose. Fees for standby inspectors shall be in accordance with the *city fee schedule*.

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

Exceptions:

1. Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or not less than 2-hour *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both.
2. In other than Group H occupancies, an *automatic sprinkler system* shall not be required in *open buildings*.

903.2.1.6 Assembly occupancies on roofs. Where an occupied roof has an assembly occupancy with an *occupant load* exceeding 100 for Group A-2 and 300 for other Group A occupancies, all floors between the occupied roof and the *level of exit discharge* shall be equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.

Exception: ~~Open parking garages of Type I or Type II construction.~~

903.2.5 Group H. *Automatic sprinkler systems* shall be provided in high-hazard occupancies as required in Sections 903.2.5.1 through 903.2.5.3.

Exception: *Hazardous materials storage* canopies complying with the provisions of Section 414.6.1 of the *Building Code* for weather protection.

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 Condition 1 facilities.
2. An *automatic sprinkler system* is not required where Group I-4 day care facilities are at the *level of exit discharge* and where every room where care is provided has not fewer than one exterior *exit door*.
3. ~~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, all floors between the level of care and the *level of exit discharge* and all floors below the *level of exit discharge* other than areas classified as an open parking garage.~~

903.2.8 Group R. An *automatic sprinkler system* installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R *fire area*.

Exception: One- or two-family dwellings not greater than three stories in height.

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

1. A room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. A room or space where sprinklers are considered undesirable because of the nature of the contents, where *approved* by the ~~fire code~~ *building official*.
3. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a *fire-resistance rating* of not less than 2 hours.
4. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.
5. Fire service access elevator machine rooms and machinery spaces.
6. Machine rooms, machinery spaces, control rooms and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the ~~International Building Code~~.

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

1. Four stories or fewer above *grade plane*.
2. For other than Group R-2 occupancies, the floor level of the highest story is 30 feet (9144 mm) or less above the lowest level of fire department vehicle access.
3. For Group R-2 occupancies, the roof assembly is less than 45 feet (13 716 mm) above the lowest level of fire department vehicle access. The height of the roof assembly shall be determined by measuring the distance from the lowest required fire vehicle access road surface adjacent to the building to the eave of the highest pitched roof, the intersection of the highest roof to the exterior wall, or the top of the highest parapet, whichever yields the greatest distance.
34. The floor level of the lowest *story* is 30 feet (9144 mm) or less below the lowest level of fire department vehicle access.

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

903.3.6 Hose threads. Fire hose threads and fittings used in connection with *automatic sprinkler systems* shall be as ~~prescribed by the fire code official~~ National Hose Standard hose threads.

903.3.7 Fire department connections. Fire department connections for *automatic sprinkler systems* shall be installed in accordance with section 912. Fire department connections shall

have 2½-inch (64 mm) hose connections. Fire department connections shall be located on the street side of the building, unobstructed, fully visible, and recognizable from the street or nearest point of fire department vehicle access or as otherwise *approved* by the *fire code official*.

SECTION 904 ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS

904.13 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. Preengineered automatic dry- and wet-chemical extinguishing systems shall be tested in accordance with UL 300 and *listed* and *labeled* for the intended application. Other types of automatic fire-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, NFPA 96, its listing and the manufacturer's installation instructions. Automatic fire-extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:

EDITORIAL NOTE: THE PORTION OF THE TEXT BETWEEN THIS SECTION NUMBER AND THE EXCEPTION SHALL REMAIN AS SET FORTH IN THE 2021 IFC.

Exception: Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B and *listed*, *labeled* and installed in accordance with Section ~~304.4~~ 303.1 and 516.0 of the *International Mechanical Code*.

SECTION 905 STANDPIPE SYSTEMS

905.2.1 Two-way standpipe connections. Class I and Class III standpipe systems shall be equipped with a two-way fire department inlet connection. Systems with three or more standpipes shall be provided with not less than two two-way fire department inlet connections.

905.3.2 Group A. Class I automatic wet standpipes shall be provided in nonsprinklered Group A buildings having an *occupant load* exceeding 1,000 persons.

Exceptions:

1. Open-air-seating spaces without enclosed spaces.
2. ~~Class I automatic dry and semiautomatic dry standpipes or manual wet standpipes are allowed in buildings that are not high-rise buildings.~~

905.3.4 Stages. Stages greater than 1,000 square feet (93 m²) in area shall be equipped with a Class III wet stand-pipe system with 1½-inch and 2½-inch (38 mm and 64 mm) hose connections on each side of the stage.

Exception: Where the building or area is equipped throughout with an *automatic sprinkler system*, a 1½-inch (38 mm) hose connection shall be installed in accordance with NFPA 13 or in accordance with NFPA 14 for Class II or III standpipes.

905.3.5 Underground buildings. Underground buildings shall be equipped throughout with a Class I automatic wet or manual wet standpipe system.

905.8 Dry standpipes. Dry standpipes shall not be installed.

Exception: ~~Where subject to freezing and in accordance with NFPA 14.~~

905.13 Design pressure. Design pressure at the uppermost valve for a Class II standpipe system shall be 35 psi (241.317 kPa).

SECTION 906 PORTABLE FIRE EXTINGUISHERS

906.2 General requirements. Portable fire extinguishers shall be selected, installed and maintained in accordance with this section, ~~and NFPA 10 and Houston Fire Department LSB Standard No. 01, "Installation and Maintenance of Portable Fire Extinguishers."~~

[EDITORIAL NOTE: THE REMAINDER OF THIS SECTION SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

SECTION 907 FIRE ALARM AND DETECTION SYSTEMS

907.2 Where required—new buildings and structures. An *approved* 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 Section 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.

Not fewer than 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 waterflow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.

Exceptions:

1. The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.
2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the *fire code official* to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is open to the public.
3. In other than Group H occupancies, a fire alarm system shall not be required in *open buildings*.

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

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

Exception: Manual In other than high-rise buildings, manual fire alarm boxes are not required where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

907.2.3 Group E. A manual and automatic fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

[EDITORIAL NOTE: THE REMAINDER OF THIS SECTION SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

907.2.3.1 Group E educational. Smoke detectors shall be installed in any interior corridor serving as an exit and in storerooms, mechanical rooms, janitorial rooms and similar areas. Smoke detectors shall not be required in toilet rooms, classrooms or offices.

Exception: Approved heat detectors may be installed in lieu of smoke detectors with fire marshal approval.

907.2.3.2 Group E child day care facilities. Unless a fire alarm system is provided meeting the requirements of Section 907.2.3, a smoke alarm shall be provided in accordance with 907.2.11.8.

907.2.6.4 Group I-4. Group I-4 occupancies shall have a manual fire alarm and an automatic fire detection system installed in accordance with 907.2.3.

907.2.11.8 Group E child day care facilities. Unless a fire alarm system is provided meeting the requirements of Section 907.2.3, a smoke alarm shall be provided in each occupiable area of child day care facilities with an *occupant load* of less than 30. Where more than one smoke alarm is required, the smoke alarm interconnection and power source shall be in accordance with Section 907.2.11.5 and 907.2.11.6, and smoke alarms installed in such a manner that activation of one alarm shall activate all the alarms.

907.2.11.8.1 Detector Spacing. The distance between smoke detectors shall not exceed a nominal spacing of 30 feet (9144 mm) and there shall be detectors within a distance of one-half the nominal spacing, measured at right angles from all walls or partitions extending upward to within the top 15 percent of the ceiling height.

907.4.2.4 Signs. ~~Where fire alarm systems are not monitored by an approved supervising station in accordance with Section 907.6.6, an approved permanent sign shall be installed adjacent to each manual fire alarm box that reads: WHEN ALARM SOUNDS CALL FIRE DEPARTMENT.~~

Exception: ~~Where the manufacturer has permanently provided this information on the manual fire alarm box.~~

SECTION 909 SMOKE CONTROL SYSTEMS

909.12.2 Wiring. In addition to meeting requirements of NFPA 70 the *Electrical Code*, all mechanical smoke control wiring, regardless of voltage, shall be fully enclosed within continuous raceways. The requirement of this section shall apply only to wiring extending from the fire alarm system control unit that activates any required smoke control system component such as relays, fans, dampers, or stair pressurization systems.

909.13.1 Materials. Control air tubing shall be hard drawn copper, Type L, ACR in accordance with ASTM B42, ASTM B43, ASTM B68/B68M, ASTM B88, ASTM B251 and ASTM B280. Fittings shall be wrought copper or brass, solder type, in accordance with ASME B16.18 or ASME B16.22. Changes in direction shall be made with appropriate tool bends. Brass compression-type fittings shall be used at final connection to devices; other joints shall be brazed using a BCuP5 brazing alloy with solidus above 1,100°F (593°C) and liquidus below 1,500°F (816°C). Brazing flux shall be used on copper-to-brass joints only.

Exception: Nonmetallic tubing used within control panels and at the final connection to devices, provided that all of the following conditions are met:

1. Tubing shall comply with the requirements of Section 602.2.31.3 of the *International Mechanical Code*.

[EDITORIAL NOTE: THE REMAINDER OF SECTION 909.13.1 SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

SECTION 912 FIRE DEPARTMENT CONNECTIONS

912.3 Fire hose threads. Fire hose threads used in connection with standpipe systems shall be *approved* and shall be compatible with ~~fire department~~ National Hose Standard hose threads.

912.7 Inspection, testing and maintenance. Fire department connections shall be periodically inspected, tested and maintained in accordance with NFPA 25 and Houston Fire Department LSB Standard No. 02, "Inspection and Testing of Fire Protection and Life-Safety Equipment." The owner shall maintain a written Records of inspections, testing and maintenance onsite at a location designated by the fire code official, and it shall be made available upon request maintained.

SECTION 913 FIRE PUMPS

913.1.1 Listing Fire pumps shall be listed by FM Global, UL Solutions or other approved agency and shall not deliver less than the required flow and pressure in accordance with the listing.

913.1.2 Automatic Operation. Fire pumps shall be automatic operation. (See the Electrical Code for additional requirements.)

913.4 Valve supervision. Where provided, the fire pump suction, discharge and bypass valves, and isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods:

1. Central-station, proprietary or remote-station signaling service.
2. Local signaling service that will cause the sounding of an audible signal at a *constantly attended location*.
3. ~~Locking valves open.~~
4. ~~Sealing of valves and approved weekly recorded inspection where valves are located within fenced enclosures under the control of the owner.~~

913.6 Minimum Suction pressure. Fire pumps taking direct suction from the city water supply shall be designed such that the city water pressure does not drop to less than 20 psi at 150 percent of rated capacity of the selected pump. Where the public water supply is not adequate to meet the minimum suction pressure requirements, an alternative water supply shall be provided in accordance with Section 507.2. The tank size cannot be less than the full fire protection demand without the refill rate included unless it meets the requirements of a break tank per NFPA 22.

CHAPTER 10

MEANS OF EGRESS

SECTION 1001 ADMINISTRATION

1001.1.1 Accessory Stairs, Ramps, Doors and Landings. Unless specifically address in this code, accessory stairs, ramps, doors and landings that are not components of a *means of egress* system shall meet the appropriate provisions of the *building code* for the application and scope of work proposed.

SECTION 1008 MEANS OF EGRESS ILLUMINATION

1008.4 Testing and maintenance. The equipment providing emergency power for *means of egress* illumination and *exit signs* shall be maintained in an operable condition and in accordance with Houston Fire Department LSB Standard No. 02, "Inspection and Testing of Fire Protection and Life-Safety Equipment."

SECTION 1011

STAIRWAYS

[BE] 1011.16 Ladders. Permanent ladders shall not serve as a part of the *means of egress* from occupied spaces within a building. Permanent ladders shall be constructed in accordance with Section ~~306.5~~ 304.3.1.2 of the ~~*International Mechanical Code*~~ and designed for the live loads indicated in Section 1607.17 of the ~~*International Building Code*~~. Permanent ladders shall be permitted to provide access to the following areas:

1. Spaces frequented only by personnel for maintenance, repair or monitoring of equipment.
2. Nonoccupiable spaces accessed only by catwalks, crawl spaces, freight elevators or very narrow passageways.
3. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands.
4. Elevated levels in Group U not open to the general public.
5. Nonoccupied roofs that are not required to have *stairway* access in accordance with Section 1011.12.1.
6. Where permitted to access equipment and appliances in accordance with Section ~~306.5~~ 304.3.1.2 of the ~~*International Mechanical Code*~~.

SECTION 1023 INTERIOR EXIT STAIRWAYS AND RAMPS

[BE] 1023.9 Stairway identification signs. A sign shall be provided at each floor landing in an *interior exit stairway* and *ramp* connecting more than three stories designating the floor level, the terminus of the top and bottom of the *interior exit stairway* and *ramp* and the identification of the *stairway* or *ramp*. The signage shall state the story of, and the direction to, the *exit discharge* and the availability of roof access from the *interior exit stairway* and *ramp* for the fire department. The bottom of the sign shall be located not less than 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. See Appendix H of this code for sign installation requirements.

Exception: Buildings with previously *approved* signs may retain those signs until the signs are replaced. The replacement signs shall be installed in accordance with Appendix H of this code.

1023.9.2 Signs on occupancy side of stairway doors. *Approved* stairway identification signs shall be located at each floor level on the occupancy side of all interior vertical exit enclosures, regardless of height of the building. See Appendix H for installation requirements.

Exception: Buildings with previously *approved* signs may retain those signs until the signs are replaced. The replacement signs shall be installed in accordance with Appendix H.

SECTION 1030 ASSEMBLY

[BE] 1030.9.6.1 Assembly aisle obstructions. There shall not be obstructions in the minimum width or required capacity of *aisles*. Where required by the *fire code official*, *approved* methods of identification and maintenance of aisles shall be provided to prohibit their obstruction.

Exception: *Handrails* are permitted to project into the required width of stepped *aisles* and ramped *aisles* in accordance with Section 1014.8.

CHAPTER 11

CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

SECTION 1103

FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS

1103.2 Emergency responder communication coverage in existing buildings. Existing buildings other than Group R-3, that do not have *approved* in-building, two-way emergency response communication coverage for emergency responders in the building based on existing coverage levels of the public safety communication systems, shall be equipped with such coverage according to one of the following:

1. Where an existing wired communication system cannot be repaired or is being replaced, or where not *approved* in accordance with Section 510.1, Exception 1, an ERCC system shall be installed to comply with this code.
2. Where an existing building is found to be in violation of the provisions of Section 510, the owner shall be responsible for correcting those deficiencies in a timely manner. The owner shall submit appropriate plans to obtain building permit(s) for the installation of necessary equipment Wwithin the a time frame established by the fire code official-adopting authority.
3. In facilities where emergency responder communication coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency responder communication coverage system.

Exception: Where it is determined by the *fire code official* that the in-building, two-way emergency responder communication coverage system is not needed.

1103.2.1 Compliance verification. Alterations to existing buildings require compliance verification testing by a City of Houston registered ERCC third-party special inspector. A copy of the compliance verification special inspection report shall be submitted to the building official for review and archiving to the project records prior to the project final approval or issuance of a Certificate of Compliance or Certificate of Occupancy.

Exception: Buildings without basements and three stories or less in height with an aggregate total building area of 50,000 square feet or less.

NOTE: ERCC special inspection reports shall be submitted by email directly to the Customer Assistance & Code Development Office of the Houston Permitting Center at: HPC-RA@houstontx.gov.

1103.7.6 Group R-2. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing Group R-2 occupancies more than three stories in height or with more than 16 *dwelling or sleeping units*.

Exceptions:

1. Where each living unit is separated from other contiguous living units by *fire barriers* having a *fire-resistance rating* of not less than $\frac{3}{4}$ hour, and where each living unit has either its own independent *exit* or its own independent *stairway* or *ramp* discharging at grade.
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 1027.6, Exception 3.
4. A fire alarm system is not required in buildings that do not have interior *corridors* serving *dwelling units*, do not exceed three stories in height and comply with both of the following:
 - 4.1. Each *dwelling unit* is separated from other contiguous *dwelling units* by *fire barriers* having a *fire-resistance rating* of not less than $\frac{3}{4}$ hour.
 - 4.2. Each *dwelling unit* is provided with smoke alarms complying with the requirements of Section 907.2.11.
5. Condominiums, as defined by Chapter 82 of the *Texas Property Code*.

1103.8.1 Where required. Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Section 907.2.11. Interconnection and power sources shall be in accordance with Section 1103.8.2 and 1103.8.3, respectively. After January 1, 2017, as a battery-operated single-station alarm is replaced, that smoke alarm shall be replaced with a tamper-resistant battery-operated single-station smoke alarm. Provided, however, nothing in this section shall require an owner to replace an operational battery-operated single-station smoke alarm. For the purposes of this provision, a tamper-resistant battery-operated single-station smoke alarm shall mean a sealed, single-station smoke alarm with a long-life lithium or similar battery.

Exceptions:

1. Where the code that was in effect at the time of construction required smoke alarms and smoke alarms complying with those requirements are already provided.
2. Where smoke alarms have been installed in occupancies and dwellings that were not required to have them at the time of construction, additional smoke alarms shall not be required provided that the existing smoke alarms comply with requirements that were in effect at the time of installation.
3. Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.

SECTION 1104
MEANS OF EGRESS FOR EXISTING BUILDINGS

1104.16.7 Maintenance. Fire escape *stairways* shall be kept clear and unobstructed at all times and shall be maintained in good working order. Inspections, testing, and maintenance shall be in accordance with Houston Fire Department LSB Standard No. 02, "Inspection and Testing of Fire Protection and Life-Safety Equipment."

SECTION 1107
ENERGY STORAGE SYSTEMS

1107.1 Lithium-ion technology energy storage systems. The owner of an energy storage system (ESS) utilizing lithium-ion battery technology having capacities exceeding the values in Table 1207.1.1 and that was installed prior to the jurisdiction's adoption of the 2018 or later edition of the International Fire Code shall provide the *fire code official* a failure modes and effects analysis (FMEA) or other approved hazard mitigation analysis in accordance with Section 104.8.2 for review and approval.

Exception: Detached one- and two-family dwellings and townhouses

1107.1.1 Early Detection. In addition to the requirements of Section 1207.1.4.1 and 1207.1.4.2, the analysis shall include an assessment of the ability of the installed protection systems to provide for early detection and notification of a thermal runaway event in relation to the ability of emergency responders to safely mitigate the size and impact of a thermal runaway event.

1107.1.2 Corrective action plan. Where hazards are identified by the analysis, a plan that includes a timetable for corrective action shall be submitted to the *fire code official* for review and approval. The plan shall include actions and system improvements necessary for eliminating or mitigating any identified hazards, including listed methods for early detection and notification of a thermal runaway event.

CHAPTER 12

ENERGY SYSTEMS

SECTION 1203

EMERGENCY AND STANDBY POWER SYSTEMS

1203.4.2 Schedule. Inspection, testing and maintenance of emergency and standby power systems shall be in accordance with an *approved* schedule established upon completion and approval of the system installation and Houston Fire Department LSB Standard No. 02, "Inspection and Testing of Fire Protection and Life-Safety Equipment."

CHAPTER 21

DRY CLEANING

SECTION 2104 GENERAL REQUIREMENTS

2104.2.1 Ventilation. Ventilation shall be provided in accordance with Section ~~502~~ 505 of the ~~International Mechanical Code~~ and DOL 29 CFR Part 1910.1000, where applicable.

CHAPTER 23

MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

SECTION 2303 LOCATION OF DISPENSING DEVICES

2303.2 Emergency disconnect switches. An *approved* emergency disconnect switch shall be provided at an *approved* location to stop the transfer of fuel to the fuel dispensers in the event of a fuel spill or other emergency. The emergency disconnect switch for exterior fuel dispensers shall be provided with *ready access* and shall be located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from, the fuel dispensers. For interior fuel-dispensing operations, the emergency disconnect switch shall be provided with *ready access* and be installed at an *approved* location. Such devices shall be distinctly *labeled* as: "EMERGENCY FUEL SHUTOFF". The sign lettering shall be not less than 2 inches (50 mm) in height on a background of contrasting color so that the lettering is clearly visible. Signs shall be provided in *approved* locations.

SECTION 2306 FLAMMABLE AND COMBUSTIBLE LIQUID MOTOR FUEL-DISPENSING FACILITIES

2306.2.3 Above-ground tanks located outdoors, above grade. Above-ground tanks shall not be used for the storage of Class I, II or III liquid motor fuels, except as provided by this section and Houston Fire Department LSB Standard No. 13, "Outside Protected Aboveground Tanks for Generators and Fire Pumps."

[EDITORIAL NOTE: THE REMAINDER OF THIS SECTION SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

CHAPTER 24

FLAMMABLE FINISHES

SECTION 2404 SPRAY FINISHING

2404.2 Location of spray-finishing operations. Spray-finishing operations conducted in buildings used for Group A, E, I or R occupancies shall be located in a spray room protected with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 and separated vertically and horizontally from the remainder of the building by *fire barrier walls and horizontal assemblies* with not less than 1-hour *fire-resistance rating* in accordance with the ~~*International Building Code*~~. In other occupancies, spray-finishing operations shall be conducted in a spray room, spray booth or spraying space *approved* for such use. Outside spraying or spray-finishing operations in basements or sub-basements are prohibited except when *approved* by the *fire code official*.

Exceptions:

1. Automobile undercoating spray operations and spray-on automotive lining operations conducted in areas with *approved* natural or mechanical ventilation shall be exempt from the provisions of Section 2404 when *approved* and where utilizing Class IIIA or IIIB *combustible liquids*.
2. In buildings other than Group A, E, I or R occupancies, *approved* limited spraying space in accordance with Section 2404.9.
3. Resin application areas used for manufacturing of reinforced plastics complying with Section 2409 shall not be required to be located in a spray room, spray booth or spraying space.

2404.7 Ventilation. Mechanical ventilation of flammable vapor areas shall be provided in accordance with Section ~~502.7~~ 505 of the ~~*International Mechanical Code*~~.

CHAPTER 31

TENTS, TEMPORARY SPECIAL EVENT STRUCTURES AND OTHER MEMBRANE STRUCTURES

SECTION 3103 TEMPORARY TENTS AND MEMBRANE STRUCTURES

3103.2 Approval required. *Tents, canopies, and membrane structures* having an area in excess of ~~400~~ 1,200 square feet (~~37~~ 112 m²), or an aggregate area in excess of 1,200 square feet (112 m²), shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the *fire code official*. See Houston Fire Department LSB Standard No. 22, "Tents and Other Membrane Structures."

Exceptions:

1. *Tents* used exclusively for recreational camping purposes.
2. ~~*Tents* open on all sides that comply with all of the following:~~
 - 2.1 ~~Individual *tents* having a maximum size of 700 square feet (65 m²).~~
 - 2.2 ~~The aggregate area of multiple *tents* placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m²) total.~~
 - 2.3 ~~A minimum clearance of 12 feet (3658 mm) to all structures and other *tents*.~~

3103.5 Use period. Temporary *tents, and* air-supported, air-inflated or tensioned *membrane structures* shall not be erected for a period of more than ~~179~~90 days within a 12-month period on a single premises.

SECTION 3105 TEMPORARY SPECIAL EVENT STRUCTURES

3105.2 Approval. Temporary special event structures in excess of ~~400~~ 1,200 square feet (~~37~~112 m²) shall not be erected, operated or maintained for any purpose without first obtaining approval and a permit from the *fire code official* and the building official.

SECTION 3107 OPERATIONAL REQUIREMENTS

3107.5 Fireworks. Fireworks shall not be used within 100 feet (30 480 mm) of *tents, canopies* or *membrane structures* except as approved by the fire code official.

CHAPTER 32

HIGH-PILED COMBUSTIBLE STORAGE

SECTION 3206

GENERAL FIRE PROTECTION AND LIFE SAFETY FEATURES

3206.7.8 Key box. Where fire department access doors are required, a key box shall be installed in accordance with Section 506.1 and LSB Standard 5. The key box shall contain keys or devices to allow for entry through the fire department access doors.

CHAPTER 33

FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

SECTION 3305 PRECAUTIONS AGAINST FIRE

3305.2.1 Combustible waste material accumulation. Combustible debris, rubbish and waste material shall not be accumulated within buildings or allowed to accumulate around or overflow from dumpsters.

3305.2.2 Combustible waste material removal. Combustible debris, rubbish and waste material shall be removed from buildings at the end of each shift of work. Combustible waste storage dumpsters shall be used and maintained in accordance with Section 304.

3305.3 Burning of combustible debris, rubbish and waste. Combustible debris, rubbish and waste material shall not be disposed of by burning on the site ~~unless approved.~~

SECTION 3311 ACCESS FOR FIRE FIGHTING AND E.M.S. OPERATIONS

3311.1 Required access. *Approved* vehicle access for fire fighting and emergency medical service shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30,480 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading as required by Section D102.1 of this code under all weather conditions up to the foundation of every structure on the site prior to the start of any vertical construction. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

SECTION 3314 STANDPIPES

3314.3 Detailed requirements. Standpipes shall be installed in accordance with the provisions of Section 905.

Exception: ~~Standpipes shall be either temporary or permanent in nature, and with or without a water supply, provided that such standpipes comply with the requirements of Section 905 as to capacity, outlets and materials.~~

3314.3.1 Temporary standpipes. Temporary standpipes may be provided in place of permanent systems if they are designed to furnish a minimum of 500 gallons (1,893 L) of

water per minute at 50 pounds per square inch (345 kPa) pressure with a standpipe size of not less than 4 inches (102 mm). All outlets shall be not less than 2½ inches (63.5 mm).

3314.3.2 Standpipe water supply. Pumping equipment sufficient to provide this pressure and volume shall be available at all times when the building reaches 150 feet (45,270 mm) above grade.

SECTION 3318 SAFEGUARDING ROOFING OPERATIONS

3318.2.1 Permits. Permits are required for the use of asphalt kettles and for torching operations. See Section 105.5.

3318.4 Torches and other flame-producing devices. Use of torches or other flame-producing devices for application of roofing membranes is prohibited.

Exception: When *approved by the fire code official*, roofing operations shall be conducted in accordance with Houston Fire Department LSB Standard No. 11, “Roofing Operations.”

CHAPTER 35

WELDING AND OTHER HOT WORK

SECTION 3503 GENERAL REQUIREMENTS

3503.7 Roofing operations utilizing flame-producing devices. Use of torches or other flame-producing devices for application of roofing membranes is prohibited. See Section 3318.4.

Exception: When *approved* by the *fire code official*, roofing operations shall be conducted in accordance with Houston Fire Department LSB Standard No. 11, “Roofing Operations.”

CHAPTER 37

COMBUSTIBLE FIBERS

SECTION 3703

GENERAL PRECAUTIONS

3703.5 Dust collection. Where located within a building, equipment or machinery that generates or emits *combustible fibers* shall be provided with an *approved* dust-collecting and exhaust system. Such systems shall comply with Chapter 22 of this code and Section ~~514~~ 506.6 of the *International Mechanical Code*.

CHAPTER 50

HAZARDOUS MATERIALS—GENERAL PROVISIONS

SECTION 5001 GENERAL

5001.7 Enterprise permit. Businesses and facilities storing or utilizing hazardous materials exceeding the maximum allowable quantity limits per control area identified in Tables 307.1(1) and 307.1(2) of the *Building Code* shall comply with Chapter 28, Article VII, of the *City Code* for a hazardous enterprise.

SECTION 5003 GENERAL REQUIREMENTS

5003.1 Scope. The storage, use and handling of all hazardous materials shall be in accordance with this section and the applicable provisions of the *Hazardous Enterprise Ordinance* of Chapter 28, Article VII, of the *City Code* for a hazardous enterprise.

CHAPTER 56

EXPLOSIVES AND FIREWORKS

SECTION 5601 GENERAL

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

Exceptions:

1. Storage and handling of fireworks as allowed in Section 5604.
- ~~2. Manufacture, assembly and testing of fireworks as allowed in Section 5605.~~
3. The use of fireworks for firework displays as allowed in Section 5608.
- ~~4. The possession, storage, sale, handling and use of specific types of Division 1.4G fireworks where allowed by applicable laws, ordinances and regulations, provided such fireworks and facilities comply with 2006 edition of NFPA 1124, CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, as applicable for consumer fireworks.~~
4. Fireworks being transported in international, intrastate, or interstate commerce through the jurisdiction between points of origin and destination outside of the jurisdiction in accordance with all applicable municipal or state laws, ordinances, and regulations, provided the fireworks comply with federal regulations CPSC 16 CFR Parts 1500-1507, and DOTn 49 CFR Parts 100-185, for consumer fireworks. The provisions of this exception shall extend only to bona fide commercial transportation and distribution of fireworks in commercial quantities among manufacturers, wholesalers and dealers. Transportation shall be by way of established hazardous materials transportation routes through and around the jurisdiction.

5601.1.3.1 Seizure of fireworks. The presence of any fireworks within this jurisdiction in violation of this chapter is hereby declared to be a common and public nuisance. The fire code official is directed and required to seize and cause to be safely destroyed any fireworks found in violation of this code. Any member of the Life Safety and Fire Prevention Bureau of the Houston Fire Department or any police officer of the jurisdiction is empowered to stop the transportation of and detain any fireworks found being transported illegally.

SECTION 5605 MANUFACTURE, ASSEMBLY AND TESTING OF EXPLOSIVES, EXPLOSIVE MATERIAL AND FIREWORKS

5605.1.1 Manufacturing of fireworks prohibited. The manufacturing of fireworks is prohibited, and no provision of this section shall be construed to authorize the manufacturing of fireworks within the jurisdiction.

CHAPTER 57

FLAMMABLE AND COMBUSTIBLE LIQUIDS

SECTION 5703 GENERAL REQUIREMENTS

5703.5.5 Security. When required by the *fire code official*, storage areas, tanks, piping, valves, regulating equipment and accessories shall be protected against tampering or trespassers by fencing or other control measures in accordance with Section 5003.9.2.

5703.6.9.2 Swing joints. Approved swing joints shall be installed on all underground liquid, vapor and vent piping where the piping leaves the dispensing island or location and just before where the pipe connects to any underground tank fittings. Swing joints shall also be installed on piping that is rigidly supported or connected between fixed points and that is subject to thermal expansion or differential movements. No pipe nipple used in connection with a double swing joint or where piping joins tanks shall exceed 12 inches (300 mm) in length.

Exception: Listed flexible connectors are allowed in lieu of swing joints when approved by the *fire code official*.

SECTION 5704 STORAGE

5704.1 General. The storage of *flammable* and *combustible liquids* in containers and tanks shall be in accordance with this section, API 653 for steel tanks, and the applicable sections of Chapter 50.

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 within the limits established by law as the limits of districts in which such storage is prohibited **[JURISDICTION TO SPECIFY]** in accordance with Section 203, unless approved by the *fire code official*. See Houston Fire Department LSB Standard No. 13, "Outside Protected Aboveground Tanks for Generators and Fire Pumps".

5704.2.12.3 Existing tanks and testing. The *fire code official* is authorized to require leak-testing for existing underground storage tanks and piping when there is reasonable cause to believe that a leak exists. The method of testing shall be approved by the *fire code official*.

5704.3.4.4 Special provisions for Liquids used for maintenance and operation of equipment. In all occupancies, quantities of *flammable* and *combustible liquids* in excess

of 10 gallons (38 L) used for maintenance purposes and the operation of equipment shall be stored in liquid storage cabinets in accordance with Section 5704.3.2. Quantities not exceeding 10 gallons (38 L) are allowed to be stored outside of a cabinet where in approved containers safety cans located in private garages or other approved locations.

In other than Group H occupancies, quantities of *flammable* and *combustible liquids* used for demonstration, treatment and laboratory work exceeding 10 gallons (38 L) shall be stored in storage cabinets in accordance with Section 5704.3.2. Quantities not exceeding 10 gallons (38 L) shall be stored in *approved* safety cans located in *approved* locations.

5704.4.8 Empty containers and tank storage. ~~The storage of e~~Empty tanks and containers previously used for the storage of *flammable* or *combustible liquids*, unless free from explosive vapors, shall be stored as required for filled containers and tanks. Tanks and containers when emptied shall have the covers or plugs immediately replaced in openings. Empty tanks and containers that have been rendered free of explosive vapors shall be visibly marked as EMPTY, or the area where containers are stored shall be marked with an *approved* sign indicating EMPTY CONTAINERS. Containers marked as EMPTY shall be separated from filled containers.

SECTION 5706 SPECIAL OPERATIONS

5706.2.4.4 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks is prohibited within the limits established by law as the limits of districts in which such storage is prohibited **[JURISDICTION TO SPECIFY]** in accordance with Section 203, unless *approved* by the *fire code official*. See Houston Fire Department LSB Standard No. 13, "Outside Protected Aboveground Tanks for Generators and Fire Pumps".

5706.5.4.5 Commercial, industrial, governmental or manufacturing. Dispensing of Class I, II, and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided that such dispensing operations are conducted in accordance with the following:

[EDITORIAL NOTE: REMAINDER OF SECTION REMAINS AS SET FORTH IN 2021 IFC.]

CHAPTER 60

HIGHLY TOXIC AND TOXIC MATERIALS

SECTION 6004

HIGHLY TOXIC AND TOXIC COMPRESSED GASES

6004.2.2.7 Treatment systems. The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, and local exhaust systems required in Sections 6004.2.2.4 and 6004.2.2.5 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Section 540 505 and 506 of the *International Mechanical Code*.

[EDITORIAL NOTE: REMAINDER OF SECTION 6004.2.2.7 REMAINS AS SET FORTH IN 2021 IFC.]

CHAPTER 61

LIQUEFIED PETROLEUM GASES

SECTION 6101

GENERAL

6101.2 Permits. Permits shall be required as set forth in Sections 105.5 and ~~405.6~~ to store, use, handle or dispense LP-gas, or to install or maintain any LP-gas container in excess of 125 gallons (473 L) aggregate water capacity. A permit is required to use any amount of LP-gas for demonstrations, public exhibitions, portable heating (excluding R occupancies) or temporary commercial cooking or on mobile food units. As used in this chapter, the term mobile food unit has the meaning set forth in Chapter 20 of the City Code.

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 code official*.

6101.3 Construction documents. Where a single LP-gas container is more than ~~2,000~~ 500 gallons (~~7570~~ 1893 L) in water capacity or the aggregate water capacity of LP-gas containers is more than ~~4,000~~ 2000 gallons (~~15140~~ 7570 L), the installer shall submit *construction documents* for such installation.

6103.2.1 Portable containers. Portable LP-gas containers, as defined in NFPA 58, shall not be used in buildings except as specified in NFPA 58, ~~and~~ Sections 6103.2.1.1 through 6103.2.1.79, and Houston Fire Department LSB Standards No. 10, "LP-Gas and Open Flame Use" and No. 11, "Roofing Operations."

6103.2.1.2 Construction and temporary heating. Portable LP-gas containers are allowed to be used in buildings or areas of buildings undergoing construction ~~or for temporary heating as set forth in Sections 622.4, 6.22.5, and 6.22.8 of NFPA 58 when attached to approved torches.~~ The aggregate capacity of LP-gas containers inside a building shall not exceed 250 pounds (113 kg) water capacity. Containers connected for use shall be promptly removed from the building when the torch is not in use. Containers not connected for use shall be stored outside the building in accordance with Table 6104.3. Portable LP-gas containers shall not be attached to temporary or portable heating appliances as set forth in Sections 6.20.4, 6.20.5 and 6.20.8 of NFPA 58.

6103.2.1.3 Group F occupancies. In Group F occupancies, portable LP-gas containers are allowed to be used to supply quantities necessary for processing, research or experimentation. Where manifolded, the aggregate water capacity of such containers shall not exceed 735 pounds (334 kg) per manifold. Where multiple manifolds of such containers are present in the same room, each manifold shall be separated from other manifolds by a distance of not less than 20 feet (6,096 mm). The aggregate capacity of LP-gas containers inside a building shall not exceed 250 pounds (113 kg) water capacity. Containers connected for use shall not be stored inside a building or structure unless stored within a room constructed in accordance with the requirements of Section 6109.10. Containers not connected for use shall be stored outside the building in accordance with Table 6104.3.

6103.2.1.7 Use for food preparation inside buildings. ~~Where approved, listed LP-gas commercial food service appliances are allowed to be used for food preparation within restaurants and in attended commercial food catering operations in accordance with the International Fuel Gas Code, the International Mechanical Code and NFPA 58. LP-gas containers shall not be used for residential or commercial food preparation inside of a building or structure.~~

Exception: When approved, listed LP-gas commercial food service appliances are allowed to be used for food preparation within restaurants and in attended commercial food catering operations, provided that an individual appliance shall not have more than two 10-oz (0.3 L), non-refillable LP-gas containers connected directly to the appliance any time. Containers shall comply with nationally recognized standards, have a maximum water capacity of 1.08 pounds (0.5 kg) per container and shall not be manifolded. The appliance's fuel containers shall be an integral part of the listed commercial food service device and shall be connected without the use of a rubber hose. The aggregate amount of LP-gas used or stored shall not exceed 60 pounds (27 kg) LP-gas capacity. In educational occupancies, portable LP-gas containers shall not be used or stored except as permitted by Sections 6103.2.1.5 and 6103.2.1.6.

6103.2.1.8 Use for food preparation outside buildings. When approved, LP-gas containers may be used for commercial cooking outside buildings or in the operation of a mobile food unit in accordance with Houston Fire Department LSB Standard No. 10, "LP-Gas and Open Flame Use." For permits, see Section 105.5.

6103.2.1.9 Group B and M occupancies. In Group B and M occupancies, portable LP-gas containers are allowed to be used to supply quantities necessary for minor repairs or minor fabrication work, when connected to an approved appliance. The containers shall not exceed a 2.7 pounds (1.2 kg) water capacity or as approved by NFPA 58. Containers not connected for use shall be stored outside the building in accordance with Table 6104.3.

6103.2.2 Industrial vehicles and floor maintenance machines. LP-gas containers on industrial vehicles and floor maintenance machines shall comply with Sections 11.11 and 11.12 of NFPA 58. Industrial lift trucks stored inside of buildings shall be kept in an *approved* area. LP-gas containers not attached for use shall be stored outside of the building in accordance with Table 6104.3.

SECTION 6104 LOCATION OF LP-GAS CONTAINERS

6104.2 Maximum capacity within established limits. Within the limits established by law restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons (7570 L) ~~[JURIDICITION TO SPECIFY]~~.

Exception: In particular installations, this capacity limit shall be determined by the *fire code official*, after consideration of special features such as topographical conditions, nature of occupancy, and proximity to buildings, capacity of proposed LP-gas containers, degree of fire protection to be provided and capabilities of the local fire department. See also Houston Fire Department LSB Standard No. 10, "LP-Gas and Open Flame Use."

CHAPTER 80 REFERENCED STANDARDS

NFPA

National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471

25—2023: Standard for the Inspection, Testing and Maintenance of Water-based Fire Protection Systems

507.5.3, Table 901.6.1, 901.7, 904.7.1, 912.7, 913.5

70—2023: National Electrical Code

309.2, 322.1, 603.1, 603.1.1, 603.2.1, 603.4, 603.4.1, 603.5, 603.8, 605.1.2, 605.1.6, 605.6.2, 607.6, 607.7, 608.17, 608.18, 904.3.1, 907.6.1, 909.12.2, 909.16.3, 910.4.6, 1006.2.2.4, 1010.2.9.2, 1201.2, 1203.1.3, 1205.1, 1206.4, 1206.14, 1207.4.1, 1207.4.2, 1207.4.8, 1207.5.3, 1207.10.6, 1207.10.7.4, 1207.11.5, 1207.11.10, 2006.3.4, 2104.2.3, 2108.2, 2203.4.1, 2203.5, Table 2205.1, 2301.5, 2305.4, 2308.8.1.2.4, 2309.2.3, 2311.3.1, 2311.8.10, 2403.2.1, 2403.2.1.1, 2403.2.1.4, 2403.2.5, 2404.6.1.2.2, 2404.9.4, 2504.5, 2603.2.1, 2703.7.1, 2703.7.2, 2703.7.3, 2803.4, 2904.1, 3103.12.6.1, 3106.6, 3107.12.7, 3305.7, 3506.4, 4003.3.3, 4003.4, 5003.8.7.1, 5003.9.4, 5303.7.6, 5303.8, 5303.16.11, 5303.16.14, 5503.6, 5503.6.2, 5703.1, Table 5703.1.1, 5703.1.3,

5704.2.8.12, 5704.2.8.17, 5706.2.8, 5803.1.5, 5803.1.5.1, 5807.1.10, 5906.5.5,
5906.5.6, 6109.15.1

855—23: Standard for the Installation of Stationary Energy Storage Systems

322.1

APPENDIX A

BOARD OF APPEALS

~~The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.~~

SECTION A101 GENERAL

A101.2 Application for appeal Organization. ~~Any person shall have the right to appeal a decision of the *fire code official* to the board. An application for appeal shall be based on a claim that the intent of this code or the rules legally adopted here under have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The application shall be filed on a form obtained from the *fire code official* within 20 days after the notice was served. There is hereby created a Board of Appeals, consisting of 11 members. Five members at a meeting shall constitute a quorum. The positions on the board shall be filled as follows:~~

- ~~Position 1. By a well-respected citizen of the jurisdiction.~~
- ~~Position 2. By the *fire code official* or the official's duly authorized representative, who shall provide a board secretary.~~
- ~~Position 3. By the fire chief or the chief's duly authorized representative.~~
- ~~Position 4. By the director of Houston Public Works or the director's duly authorized representative.~~
- ~~Position 5. By a well-respected citizen of the jurisdiction, who shall serve as chairman.~~
- ~~Position 6. By a professional engineer registered as such under the laws of Texas, who shall be actively engaged in the practice as a fire protection engineer.~~
- ~~Position 7. By a person who is a member of the Building Owners and Managers Association of Houston.~~
- ~~Position 8. By a person who is engaged or employed in the chemical or petroleum industry.~~
- ~~Position 9. By a person who is a member of the Houston Apartment Association.~~
- ~~Position 10. By a person who is fire protection contractor.~~
- ~~Position 11. By a person who is an architect registered by the State of Texas.~~

~~The legal department shall have an attorney present for each board meeting, who shall advise the board on legal matters relative to topics under board jurisdiction.~~

~~The *fire chief*, the *fire code official*, and director of Houston Public Works may each designate in writing a person under his supervision to act in his place as his duly authorized representative. The representative designation shall be filed in the minutes of the board.~~

~~With the exception of the *fire chief*, the *fire code official*, and the director of Houston Public Works, members of the board shall be appointed by the mayor, subject to confirmation by the city council, and shall serve for a term of two years. The terms of the appointees for Positions 1, 6, 7,~~

and 9 commence on January 1 of each odd-numbered year and end on December 31 of the following even-numbered year. The terms of the appointees for Positions 5, 8, 10, and 11 commence on January 1 of each even-numbered year and end on December 31 of the following odd-numbered year. Members shall hold over until a successor is appointed and qualified.

Whenever any position on the board becomes vacant by reason of death, resignation or removal, the vacancy shall be filled for the unexpired term of the member being replaced. Should a vacancy occur on the board, the mayor shall appoint, subject to confirmation by the city council, another qualified person to serve the unexpired term of the vacancy. Any member of the board may be removed at any time by the mayor without consent of the city council.

~~A101.2.1 Limitation of authority.~~ ~~The board shall not have authority to waive requirements of this code or interpret the administration of this code.~~

~~A101.2.2 Stays of enforcement.~~ ~~Appeals of notice and orders, other than Imminent Danger notices, shall stay the enforcement of the notice and order until the appeal is heard by the board.~~

~~A101.3 Membership of board Per diem.~~ ~~The board shall consist of five voting members appointed by the chief appointing authority of the jurisdiction. Each member shall serve for [NUMBER OF YEARS] years or until a successor has been appointed. The board member's terms shall be staggered at intervals, so as to provide continuity. The *fire code official* shall be an ex officio member of said board but shall not vote on any matter before the board. Each member of the board shall be compensated at the rate of \$50.00 per diem for each meeting the member attends at which a quorum is present; provided, however, no member shall be paid for more than three meetings in any one month. A jurisdiction employee who is a member of the board shall be paid only for those meetings that the employee attends at which a quorum is present and that are not held during, or that continue beyond, the employee's regular working hours.~~

~~A101.3.1 Qualifications.~~ ~~The board shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous conditions or *fire protection systems*, and are not employees of the jurisdiction.~~

~~A101.3.2 Alternate members.~~ ~~The chief appointing authority is authorized to appoint two alternate members who shall be called by the board chairperson to hear appeals during the absence or disqualification of a member. Alternate members shall possess the qualifications required for board membership, and shall be appointed for the same term or until a successor has been appointed.~~

~~A101.3.3 Vacancies.~~ ~~Vacancies shall be filled for an unexpired term in the same manner in which original appointments are required to be made.~~

~~A101.3.4 Chairperson.~~ ~~The board shall annually select one of its members to serve as chairperson.~~

~~A101.3.5 Secretary.~~ ~~The chief appointing authority shall designate a qualified clerk to serve as secretary to the board. The secretary shall file a detailed record of all proceedings, which shall set forth the reasons for the board's decision, the vote of each member, the absence of a member and any failure of a member to vote.~~

~~A101.3.6 Conflict of interest.~~ ~~A member with any personal, professional or financial interest in a matter before the board shall declare such interest and refrain from participating in discussions, deliberations and voting on such matters.~~

~~**A101.3.7 Compensation of members.** Compensation of members shall be determined by law.~~

~~**A101.3.8 Removal from the board.** A member shall be removed from the board prior to the end of their terms only for cause. Any member with continued absence from regular meetings of the board may be removed at the discretion of the chief appointing authority.~~

~~**A101.4 Rules and procedures Duties of the Board of Appeals.** The board shall establish policies and procedures necessary to carry out its duties consistent with the provisions of this code and applicable state law. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be presented. The duties of the board shall be to hear appeals from decisions of the *fire code official* as to the suitability of alternate materials and types of construction and to provide for reasonable interpretations of the provisions of this code. In cooperation with the *fire code official*, the board shall submit an annual report to the mayor and the city council containing a summary of the actions of the board during the preceding year. The board may make recommendations to the mayor for amendments to this code.~~

~~**A101.5 Notice of meetings Procedures.** The board shall meet upon notice from the chairperson within 10 days of the filing of an appeal or at stated periodic intervals. The board shall adopt reasonable rules and regulations for conduct of its duties. Petitions for hearings before the board shall be in writing, filed with the *fire code official*, and heard by the board within 30 days after the date that the petition was filed. A majority of the members present, constituting a quorum, shall conduct business of board. All decisions and findings shall be rendered in writing with copies to the *fire code official*, petitioner and all other parties to the hearing. Subject to compliance with Rule 12 of the city council's rules of procedure (see Section 2-2 of the *City Code*), any interested person who is aggrieved by a decision of the board may appeal to city council, provided that written notice to the city council for the appeal is delivered to the city secretary within 10 days after the date the board renders the decision. All appeals to the city council are subject to Rule 12 of the city council's rules of procedure. Parties wishing to preserve their right of appeal must comply with Rule 12.~~

~~**A101.5.1 Open hearing.** All hearings before the board shall be open to the public. The appellant, the appellant's representative, the *fire code official* and any person whose interests are affected shall be given an opportunity to be heard.~~

~~**A101.5.2 Quorum.** Three members of the board shall constitute a quorum.~~

~~**A101.5.3 Postponed hearing.** When five members are not present to hear an appeal, either the appellant or the appellant's representative shall have the right to request a postponement of the hearing.~~

~~**A101.6 Legal counsel Posting of agenda.** The jurisdiction shall furnish legal counsel to the board to provide members with general legal advice concerning matters before them for consideration. Members shall be represented by legal counsel at the jurisdiction's expense in all matters arising from service within the scope of their duties. The board shall prepare and post an agenda in compliance with the Texas Open Meeting Law.~~

~~**A101.7 Board decision.** The board shall only modify or reverse the decision of the *fire code official* by a concurring vote of three or more members.~~

~~A101.7.1 Resolution.~~ ~~The decision of the board shall be by resolution. Every decision shall be promptly filed in writing in the office of the *fire code official* within three days and shall be open to the public for inspection. A certified copy shall be furnished to the appellant or the appellant's representative and to the *fire code official*.~~

~~A101.7.2 Administration.~~ ~~The *fire code official* shall take immediate action in accordance with the decision of the board.~~

~~A101.8 Court review.~~ ~~Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.~~

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The provisions contained in this appendix are ~~not~~ mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

EDITORIAL NOTE: ALL OTHER PROVISIONS OF THIS APPENDIX SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

APPENDIX C

FIRE HYDRANT LOCATIONS AND DISTRIBUTION

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

**EDITORIAL NOTE: ALL OTHER PROVISIONS OF THIS APPENDIX SHALL REMAIN AS SET FORTH IN THE
2021 IFC.]**

APPENDIX D

FIRE APPARATUS ACCESS ROADS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

SECTION D101 GENERAL

D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the International Fire Code, as well as Houston Fire Department LSB Standards No. 03, "Fire Department Access" and No. 04, "Access Control Gates."

SECTION D102 REQUIRED ACCESS

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an asphalt, concrete or other *approved* driving surface capable of supporting the imposed load of fire apparatus weighing up to at least 75,000 90,000 pounds (34 050 40 850 kg).

SECTION D103 MINIMUM SPECIFICATIONS

D103.5 Fire apparatus access road gates. For fire apparatus access road gate requirements, refer to Houston Fire Department LSB Standard No. 04, "Access Control Gates." ~~Gates securing the fire apparatus access roads shall comply with all of the following criteria:~~

- ~~1. Where a single gate is provided, the gate width shall be not less than 20 feet (6,096 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet (3,658 mm).~~
- ~~2. Gates shall be of the horizontal swing, horizontal slide, vertical lift or vertical pivot type.~~
- ~~3. Construction of gates shall be of materials that allow manual operation by one person.~~
- ~~4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.~~
- ~~5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.~~
- ~~6. Methods of locking shall be submitted for approval by the fire code official.~~
- ~~7. Electric gate operators, where provided, shall be listed in accordance with UL 325.~~

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

~~**D103.6 Signs.** For fire apparatus access road/fire lane sign requirements, refer to Houston Fire Department LSB Standard No. 03, "Fire Department Access." Where required by the *fire code official*, fire apparatus access roads shall be marked with permanent NO PARKING FIRE LANE signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.~~

SECTION D105 AERIAL FIRE APPARATUS ACCESS ROADS

D105.1 Where Required. Where the vertical distance between the *grade plane* and the highest roof surface exceeds 30 feet (9144 mm), *approved* aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

~~**Exception:** Where *approved* by the *fire code official*, buildings of Type IA, Type IB or Type IIA construction equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 and having fire fighter access through an enclosed *stairway* with a Class I standpipe from the lowest level of fire department vehicle access to all roof surfaces.~~

APPENDIX F

HAZARD RANKING

The provisions contained in this appendix are ~~not~~ mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

EDITORIAL NOTE: ALL OTHER PROVISIONS OF THIS APPENDIX SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]

APPENDIX H

[EDITORIAL NOTE: ENTIRETY OF APPENDIX H IS DELETED AND REPLACE WITH THE FOLLOWING TEXT.]

STAIRWAY IDENTIFICATION

SECTION H101 **GENERAL**

H101.1 Signs in stairways. Standardized signs shall be provided in buildings at each floor landing in an interior exit *stairway* and ramp connecting more than three stories. The signs shall be installed in *stairways* to identify each stair, floor level number, roof access information, the upper and lower termination of the *stairway*, and reentry information. Signs within *stairways* shall be located above the floor landing in a position that is readily visible when the door is in the open or closed position and in accordance with the *Texas Accessibility Standards*. See also Chapter 10.

SECTION H102 **OCCUPANCY SIDE OF STAIRWAY DOORS**

H102.1 Signs on occupancy (tenant) side of stairway doors. Standardized identification signs shall be located at each level on the occupancy (tenant) side of all enclosed *stairways*, regardless of the height of the building.

H102.2 Details for signs installed on the occupancy (tenant) side of doors.

H102.2.1 Stairway identification. *Stairway* identification signs shall have an alphabetic letter or name identification. The name identification shall precede the word STAIR and any alphabetic letter shall follow the word STAIR, such as STAIR A or WEST STAIR, to be placed at the top of the sign in 1-inch (25 mm) high block lettering. Numerical and written numbers shall not be used for stairwell identification. See Section H105.

H102.2.2 Reentry. Where *stairway* doors are locked from the *stairway* side to prohibit reentry to a floor, NO REENTRY shall be placed at the bottom of the sign in 1-inch (25 mm) high block lettering.

SECTION H103 **SIGNS INSTALLED IN STAIRWAYS**

H103.1 Stairway identification. *Stairway* identification signs shall have an alphabetic letter or name identification. The name identification shall precede the word STAIR and any alphabetic letter shall follow the word STAIR, such as STAIR A or WEST STAIR, to be placed at the top of the sign in 1-inch (25 mm) high block lettering. Numerical and written numbers shall not be used for stairwell identification. See Section H105.

H103.2 Roof access. The roof access condition, such as ROOF ACCESS LOCKED or NO ROOF ACCESS, shall be placed under the *stairway* identification in 1-inch (25 mm) high block lettering.

H103.3 Floor level number. The floor level number shall be placed in the middle of the sign in 2-inch (50 mm) high block lettering. Mezzanine levels shall have the letter M preceding the floor number. Basement levels shall have the letter B preceding the floor number. No other designation for mezzanine and basement levels shall be used.

H103.4 Lower and upper terminus. The lower and upper terminus designation of the *stairway* shall be placed under the floor number in 1-inch (25 mm) high block lettering.

H103.5 Reentry. Where *stairway* doors are locked from the *stairway* side to prohibit reentry to a floor, NO REENTRY shall be placed under the lower and upper terminus designation in 1-inch (25 mm) high block lettering. Additionally, the nearest floor above and below where a person can reenter from the *stairway* shall be placed at the bottom of the sign in 1-inch (25 mm) high block lettering.

SECTION H104

COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS (TAS)

H104.1 Raised and braille characters/character portions. *Stairway* identification, floor level number and reentry information on signs shall comply with TAS requirements for raised and Braille characters. All other letters and numbers on the sign shall comply with TAS requirements for character proportions.

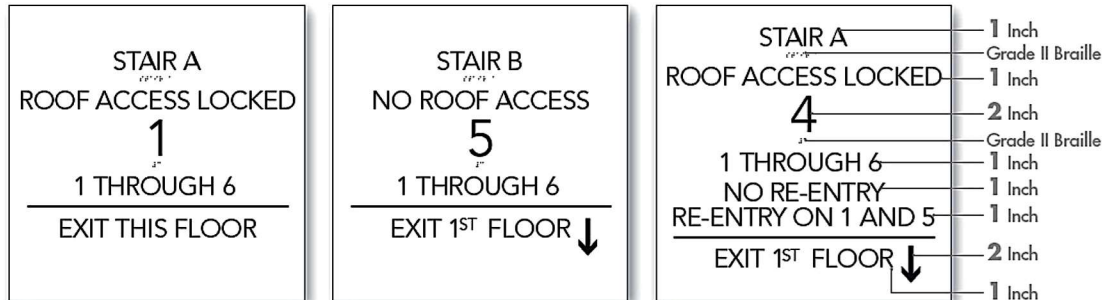
H104.2 Finish and contrast. All characters and backgrounds of signs shall comply with TAS requirements for finish and contrast.

H104.3 Mounting location and height. All signs shall comply with TAS requirements for mounting location and height.

SECTION H105

SIGN EXAMPLES

STAIRWELL INTERIOR SIGN TYPE



FLOOR OF EXIT DISCHARGE

Front Elevation

OPTION A

SCALE: 3"=1'

UNRESTRICTED RE-ENTRY

Front Elevation

OPTION B

SCALE: 3"=1'

RESTRICTED RE-ENTRY

Front Elevation

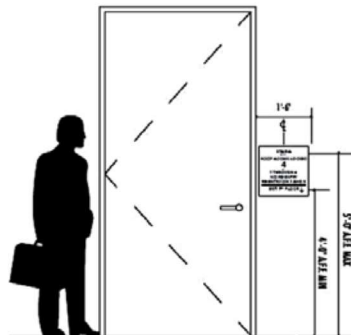
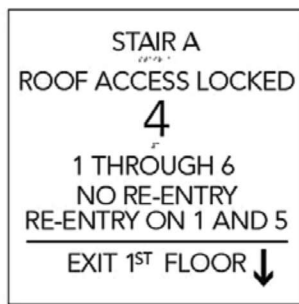
OPTION C

SCALE: 3"=1'

City of Houston
Stair Signage

05.09.13

STAIRWELL INTERIOR SIGN TYPE



RESTRICTED RE-ENTRY

Front Elevation

OPTION C

SCALE: 3"=1'

MOUNTING PLACEMENT

Location Elevation (2012 TAS Code Mounting Height)

OPTION C

SCALE: 1/2"=1'

City of Houston
Stair Signage

05.09.13

OCCUPANCY SIDE STAIR ID



RESTRICTED RE-ENTRY

Front Elevation

OPTION A

SCALE: 3"=1'

UNRESTRICTED RE-ENTRY

Front Elevation

OPTION B

SCALE: 3"=1'

APPENDIX I

[EDITORIAL NOTE: DELETE THE ENTIRETY OF APPENDIX I AND REPLACE WITH THE FOLLOWING TEXT.]

AUTOMATIC SPRINKLER SYSTEMS, FIRE ALARM AND DETECTION SYSTEMS IN EXISTING NON-HIGH-RISE ATRIUM BUILDINGS

SECTION I101 **GENERAL**

I101.1 Purpose. The purpose of this appendix chapter is to provide a reasonable degree of safety to persons occupying existing atrium buildings by providing for the installation of *automatic sprinkler systems* or fire alarm and detection systems in buildings that do not already have such systems in compliance with this appendix.

I101.2 Application. This appendix chapter shall apply to any atrium building annexed into the corporate limits.

Exception: The provisions of this appendix shall not apply to the following:

1. Atrium buildings built in accordance with the *Building Code*.
2. Existing high-rise buildings, as defined in Chapter 2.

SECTION I102 **DEFINITION**

I102.1 Definition. The following term, for the purposes of this appendix, shall have the meaning ascribed in Chapter 2:

ATRIUM.

TABLE I102.1
REFERENCED STANDARDS

<u>STANDARD ACRONYM</u>	<u>STANDARD NAME</u>	<u>SECTIONS HEREIN REFERENCED</u>
<u>NFPA 10—21</u>	<u>Portable Fire Extinguishers</u>	<u>I101.1</u>

<u>NFPA 25—23</u>	<u>Inspection, Testing and Maintenance of Water-based Fire Protection Systems</u>	<u>I101.1</u>
<u>NFPA 72—19</u>	<u>National Fire Alarm and Signaling Code</u>	<u>I101.1</u>

SECTION I103 **FIRE PROTECTION AND DETECTION SYSTEMS**

I103.1 Required. All existing atrium buildings shall be equipped with one of the following:

1. An automatic and manual fire alarm system in accordance with NFPA 72 and smoke detectors installed in every room exceeding 40 square feet as well as all common areas according to the compliance schedule set forth in Section I104.
2. An automatic sprinkler system with total coverage throughout the building in accordance with NFPA 13 and with the capability to alarm all occupants throughout the building using alarm notification appliances as required by Section 907. Such sprinkler system shall be installed according to the compliance schedule set forth in Section I104.

SECTION I104 **COMPLIANCE SCHEDULE**

I104.1 Letter of intent. Within six months after the date of annexation of the building into the jurisdiction, owners of existing atrium buildings shall provide the *fire code official* with a letter expressing the owner's intent to comply with this section.

I104.2 Compliance check points. Except as provided by this section, owners of existing atrium buildings shall comply with the following schedule:

1. If the owner chooses to install an alarm system and smoke detectors in accordance with subsection 1 of Section I103.1, the total square footage of the building shall be equipped with an operational automatic and manual fire alarm system and smoke detectors within two years after the date of annexation into the jurisdiction.
2. If the owner chooses to install a sprinkler system in accordance with subsection 2 of Section I103.1:
 - 2.1 Fifty percent of the building shall be equipped with an operational *automatic sprinkler system* with the capability to alarm all occupants throughout the building within five years after the date of annexation of the building into the jurisdiction.
 - 2.2 The total square footage of the building shall be equipped with an operational *automatic sprinkler system* with the capability to alarm all occupants throughout the building within seven years after the date of annexation of the building into the jurisdiction.

APPENDIX J

[EDITORIAL NOTE: ENTIRETY OF APPENDIX J IS DELETED AND REPLACED WITH THE FOLLOWING TEXT.]

AUTOMATIC SPRINKLER SYSTEMS IN EXISTING HIGH-RISE BUILDINGS

SECTION J101 **GENERAL**

J101.1 Purpose. The purpose of this appendix chapter is to provide a reasonable degree of safety to persons occupying existing high-rise buildings by providing for installation of *automatic sprinkler systems* in such buildings that do not already have such systems.

J101.2 Application. This appendix chapter shall apply to any high-rise building existing within the corporate limits of the city on December 31, 2005, and any high-rise building annexed into the corporate limits after that date.

Exception: The provisions of this appendix shall not apply to the following:

1. Airport traffic control towers in accordance with Sections 412 and 907.2.22 of the *Building Code*.
2. Open parking garages in accordance with Section 406.5 of the *Building Code*.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.6 of the *Building Code*.
4. Low-hazard special industrial occupancies in accordance with Section 503.1.1 of the *Building Code*.
5. Buildings with an occupancy in Group H in accordance with Section 415 of the *Building Code*.
6. Individually owned individual *dwelling units* in high-rise buildings.

SECTION J102 **DEFINITION**

J102.1 Definition. The following term, for the purposes of this appendix, shall have the meaning ascribed in Chapter 2:

HIGH-RISE BUILDING.

SECTION J103 **AUTOMATIC SPRINKLER SYSTEMS**

J103.1 Required. All existing high-rise buildings shall be equipped with an *automatic sprinkler system* in accordance with NFPA 13 according to the compliance schedule set forth in Section J104.

SECTION J104 **COMPLIANCE SCHEDULE**

J104.1 Letter of intent. On or before December 31, 2006, or within one year after the date of annexation of the building into the jurisdiction, owners of existing high-rise buildings shall provide the *fire code official* with a letter expressing the owner's intent to comply with this section.

J104.2 Compliance check points. Except as provided by this section, owners of existing high-rise buildings shall comply with the following schedule for installation of *automatic sprinkler systems*:

- 1.** On or before December 31, 2009, or within four years after the date of annexation of the building into the jurisdiction, a water supply in accordance with NFPA 13 shall be installed to all floors of the building, and the owner shall provide the *fire code official* with written plans for compliance with this appendix and schedules for completion of the work stated in the written plan.
- 2.** On or before December 31, 2014, or within nine years after the date of annexation of the building into the jurisdiction, a minimum of 50% of the floors shall be equipped with an operational *automatic sprinkler system*.
- 3.** On or before December 31, 2017, or within twelve years after the date of annexation of the building into the jurisdiction, the total square footage of the building shall be equipped with an operational *automatic sprinkler system*.

APPENDIX M

[EDITORIAL NOTE: THE ENTIRETY OF APPENDIX M IS DELETED AND REPLACED WITH THE FOLLOWING
TEXT.]

HOME DAY CARE—R-3 OCCUPANCY

SECTION M101 GENERAL

M101.1 General. This appendix shall apply to a home day care operated within a *dwelling*. Home day care facilities shall be in compliance with Appendix AM of the Houston *Residential Code*.

APPENDIX N

INDOOR TRADE SHOWS AND EXHIBITIONS

The provisions contained in this appendix are ~~not~~ mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

EDITORIAL NOTE: ALL PROVISIONS OF THIS APPENDIX SHALL REMAIN AS SET FORTH IN THE 2021 IFC.]