

**ORDINANCE NO. 20051215-105**

**AN ORDINANCE AMENDING CHAPTER 25-12 TO REPEAL AND REPLACE ARTICLE 7 (FIRE CODE) TO ADOPT THE 2003 INTERNATIONAL FIRE CODE AND LOCAL AMENDMENTS.**

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

**PART 1.** Sections 25-12-171 and 25-12-172 of Article 7 of Chapter 25-12 of the City Code are repealed and replaced to read as follows:

***ARTICLE 7. FIRE CODE.***

**§ 25-12-171 FIRE CODE.**

- (A) The publication known as the 2003 Edition of the International Fire Code, including the appendices, published by the International Code Council, is adopted by reference as amended by this article.
- (B) The following provisions of the 2003 International Fire Code are deleted:

Sec. 101.1	Sec. 102.3	Sec. 102.4	Sec. 102.5
Sec. 102.6	Sec. 103.1	Sec 103.2	Sec. 103.3
Sec. 103.4	Sec. 103.4.1	Sec. 104.1	Sec. 104.8
Sec. 104.9	Sec. 105.3.1	Sec. 105.4.4	Sec. 105.6
Sec. 105.6.1 through 105.6.47		Sec. 105.7	Sec. 108.1
Sec. 109.2.2	Sec. 109.2.3	Sec. 302.1	Sec. 304.3.3
Sec.307.2	Sec. 307.3	Sec. 308.3.1	Sec. 401.3
Sec. 401.3.1	Sec. 401.3.2	Sec. 401.3.3	Sec. 503.1
Sec. 503.2.1	Sec. 503.3	Sec. 508.4	Sec. 508.5.1
Sec. 508.5.3	Sec. 901.5	Sec. 903.2.5	Sec. 903.3.5
Sec.903.3.5.2	Sec. 903.3.6	Sec. 904.9	Sec. 904.11
Sec. 905.1	Sec. 905.3.4.1	Sec. 905.5.3	Sec. 906.1
Sec. 907.2.8.2	Sec. 907.2.9	Sec. 907.3.2.3	Sec. 907.10.1.4
Sec. 907.15	Sec. 1002.1	Table 1004.1.2	Sec. 1004.2
Sec. 1004.3	Section 1005.1	Table 1005.1	Sec. 1008.1.3.4
Sec. 1008.1.9	Sec. 1025.2	Sec. 1025.2.1	Table 1804.2.1
Sec. 2201.1	Sec. 2701.2	Sec. 2701.5	Sec. 2701.5.1

Sec. 2701.5.2	Sec. 2703.3.1.4	Table 2703.1.1(3)	Table 2703.1.1(4)
Sec. 2703.9.8	Sec. 2704.2	Sec. 2704.2.1	Sec. 2704.2.2
Sec. 2704.2.2.1	Sec. 2704.2.2.2	Sec. 2704.2.2.3	Sec. 2704.2.2.4
Sec. 2704.2.2.5	Sec. 2704.2.2.6	Sec. 3104.2	Sec. 3104.2.1
Sec. 3104.2.2	Sec. 3204.3.1.1	Sec. 3301.2.4	Sec. 3307.5
Sec. 3403.4	Sec. 3404.2.9.5.1	Sec. 3404.2.10	Sec. 3404.2.10.1
Sec. 3404.2.11.2	Sec. 3404.11.3	Sec. 3801.1	Sec. 3801.2
Sec. 3804.2	Chapter 45, NFPA Standards		
Sec. 202, Overcrowding	Chapter 22, Title	Appendix A	
Appendix C	Appendix D	Appendix F	

(C) The City Clerk shall file a copy of the 2003 Edition of the International Fire Code and local amendments adopted in 25-12-172 with the official ordinances of the City.

(D) In the City Code, "Fire Code" means the 2003 International Fire Code as adopted by Section 25-12-171 and the local amendments to the 2003 International Fire Code adopted by 25-12-172. Fire Code sections may be cited simply by reference to the appropriate section as a section of the International Fire Code (e.g., IFC Section 101).

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

The following provisions are local amendments to the 2003 International Fire Code. Each provision in this section is a substitute for the identically numbered provision deleted by Section 25-12-171(A) (*Fire Code*) or is an addition to the 2003 International Fire Code.

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

**102.3 Change of use or occupancy.** The provisions of the *International Building Code* pertaining to existing buildings shall apply to all buildings undergoing a change of occupancy.

**102.4 Application of building code.** The design and construction of new structures shall comply with the *International Building Code*. Repairs, alterations and additions to existing structures shall comply with the *International Building Code, Chapter 34*.

**102.5 Historic buildings.** The construction, alteration, repair, enlargement, restoration, relocation or movement of existing buildings or structures that are designated as historic buildings when such buildings or structures do not constitute a distinct hazard to life or

property shall be in accordance with the provisions of the *International Building Code, Chapter 34*.

**102.6 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 45 and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. In the event of a conflict between referenced provisions of the International Mechanical Code and the Mechanical Code, the Mechanical Code prevails. In the event of a conflict between referenced provisions of the International Plumbing Code, the International Fuel Gas Code and the Plumbing Code, the Plumbing Code prevails. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

### **SECTION 103 FIRE PREVENTION**

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

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

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

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

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

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

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

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

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

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

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

The chief may require tests as proof of compliance with this code. The tests shall be made by an approved agency at the expense of the person requesting approval of the alternate material or method of construction.

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

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

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

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

**Permits Required.**

**105.6 Required operational permits.** The fire department is authorized to issue operational permits for the operations, practices, and functions set forth in Sections 105.6.1 through 105.6.47.

**105.6.1. Not Used.**

**105.6.2. Not Used.**

**105.6.3. Not Used.**

**105.6.4. Not Used.**

**105.6.5. Not Used.**

**105.6.6. Not Used.**

**105.6.7. Not Used.**

**105.6.8. Not Used.**

**105.6.9. Not Used.**

**105.6.10. Not Used.**

**105.6.11. Not Used.**

**105.6.12. Not Used.**

**105.6.13. Not Used.**

**105.6.14. Not Used.**

**105.6.15. Blasting.** An operational permit is required to use explosives or blasting agents at a named location for a named period. See also Chapter 33.

1. Class A: 45 days

2. Class B: 120 days

3. Class C: 1 year

4. Class D: 10 days

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

**105.6.16. Not Used.**

**105.6.17. Not Used.**

**105.6.18. Not Used.**

**105.6.19. Not Used.**

**105.6.20. Not Used.**

**105.6.21. Hazardous materials.**

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

**105.6. 21.1.1.** Materials with a toxicity rating of 2 or more, as defined in Appendix F.

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

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

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

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

## MINIMUM AGGREGATE

Flammability	RATING	QUANTITY
4	Extreme	5 Gallons
3	High	10 Gallons
2	Moderate	120 Gallons
Toxicity	RATING	QUANTITY
4	Extreme	0.35 oz. or 0.3 fl. oz.
3	High	10 lbs. or 1 gal.
2	Moderate	110 lbs. or 55 gal.
Reactivity	RATING	QUANTITY
4	Extreme	0.35 oz. or 0.3 fl. oz.
3	High	2.2 lbs or 0.26 gal.
2	Moderate	110 lbs. or 55 gal.
Compressed gases, and liquefied compressed gases		100 Cu. Ft. at NTP
Cryogenic fluids		1 gallon

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

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

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



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

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

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

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

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

**NFPA 704**

<b>Material</b>	<b>Rating</b>	<b>Quantity</b>
Corrosives (i.e. Muriatic Acid)	3-0-0	4 gallons
Class 2 Oxidizers Trichloro-s-triazinetriene (trichloroisocyanuric acid)	3-0-2	150 pounds
Class 3 Oxidizers Calcium hypochlorite (HTH, Hy-chlor)	3-0-2	110 pounds
Air Conditioning Refrigerant	2-0-0	2-30 pound cylinders

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

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

**105.6.21.6.7.** Radioactive material(s) regulated by the State of Texas under Chapter 401, Health and Safety Code or under Federal regulations must be listed in a permit

application, but will not require a permit nor be considered in setting the amount for a permit fee.

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

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

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

**105.6.22.** Not used.

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

**105.6.24.** Not used.

**105.6.25.** Not used.

**105.6.26.** Not used.

**105.6.27.** Not used.

**105.6.28.** Not used.

**105.6.29.** Not used.

**105.6.30.** Not used.

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

**105.6.32.** Not used.

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

**105.6.34. Not used.**

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

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

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

**105.6.36. Not used.**

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

**105.6.38. Not used.**

**105.6.39. Not used.**

**105.6.40. Not used.**

**105.6.41. Not used.**

**105.6.42. Not used.**

**105.6.43. Not used.**

**105.6.44 Temporary membrane structures, tents and canopies.** An operational permit is required to operate an air-supported temporary membrane structure or a tent having an area in excess of 200 square feet (19m<sup>2</sup>), or a canopy in excess of 400 square feet (37m<sup>2</sup>).

**Exceptions:**

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies open on all sides which comply with all of the following:
  - 2.1 Individual canopies having a maximum size of 700 square feet (65m<sup>2</sup>).
  - 2.2 The aggregate area of multiple canopies placed side by side without a firebreak clearance of not less than 12 feet (3658mm) shall not exceed 700 square feet (65m<sup>2</sup>) total.

**105.6.45. Not used.**

**105.6.46. Not used.**

**105.6.47. Not used.**

**107.2.3 Reinspections.** When previously identified violations have not been corrected, a fee shall be assessed for a construction related reinspection requested by the applicant or contractor. The reinspection fee shall be in an amount set by a separate ordinance. No subsequent inspections shall be made until the required fees have been paid and required documentation submitted.

**108.1 Appeals.** Appeals shall be handled under the provisions of Chapter 2-1 of the City Code.

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

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

**109.2.2.1 Removal and destruction of notices or orders.** A notice, order, sign or tag posted or affixed by the chief shall not be mutilated or destroyed, nor shall it be removed without authorization by the chief.

**109.2.3 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.

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

## **SECTION 202 GENERAL DEFINITIONS**

**ACCESS ROADWAY:** Any roads providing access around the perimeter of any building, to or from that building and a public street to or from the building and a required fire hydrant or fire department connection.

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

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

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

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

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

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

**FIRE ZONE AND FIRE LANE:** An off-street area designated in accordance with this Code that is to remain free and clear of parked and standing vehicles for access to buildings, processes, storage areas or fire appliances in case of fire or other emergency.

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

**OVERCROWDING.** A condition that exists when either there are more people in a building, structure or portion thereof than have been authorized or posted by either the chief or the building official, or when the chief determines that a threat exists to the

safety of the occupants due to persons sitting and/or standing in locations that may obstruct or impede the use of aisles, passages, corridors, stairways, exits or other components of the means of egress.

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

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

**302.1 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

**BONFIRE.** An outdoor fire utilized for ceremonial purposes.

**HI-BOY.** A cart used to transport hot roofing materials on a roof.

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

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

**OPEN BURNING.** The burning of materials wherein products of combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. Open burning does not include road flares, smudge pots and similar devices associated with safety or occupational uses typically considered open flames or recreational fires. For the purpose of this definition, a chamber shall be regarded as enclosed when, during the time combustion occurs, only apertures, ducts, stacks, flues or chimneys necessary to provide combustion air and permit the escape of exhaust gas are open.

**POWERED INDUSTRIAL TRUCK.** A forklift, tractor, platform lift truck or motorized hand truck powered by an electrical motor or internal combustion engine. Powered industrial trucks do not include farm vehicles or automotive vehicles for highway use.

**RECREATIONAL FIRE.** An outdoor fire burning materials other than rubbish where the fuel being burned is not contained in an incinerator, outdoor fireplace, barbeque grill or barbeque pit and has a total fuel area of 3 feet (914 mm) or less in diameter and 2 feet

(610 mm) or less in height for pleasure, religious, ceremonial, cooking, warmth or similar purposes.

**304.3.3 Capacity exceeding 1.5 cubic yards.** Dumpsters and containers with an individual capacity of 1.5 cubic yards (40.5 cubic feet) (1.15 m<sup>3</sup>) or more shall not be stored in buildings or placed within 10 feet (1524 mm) of combustible walls, openings or combustible roof eave lines.

**Exceptions:**

1. Dumpsters or containers in areas protected by an approved automatic sprinkler system complying with Chapter 9.
2. Storage in a structure shall not be prohibited where the structure is of Type I or Type IIA construction, located not less than 10 feet (3048 mm) from other buildings and used exclusively for dumpster or container storage.

**307.2 Permit required.** A permit shall be obtained from the fire department, emergency prevention division in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, a warming fire, a rubbish fire, or a bonfire. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled. Rubbish includes waste material from the construction or demolition of buildings. For additional requirements concerning trench burning, see Section 308.7. For mobile incinerators, see Section 308.8. For agricultural burning see Section 308.9.

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

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

**Exceptions:**

1. Fires in approved containers that are not less than 15 feet (4572 mm) from a structure.
2. Operation of a trench burner shall be in accordance with Section 308.7.
3. Operation of a mobile incinerator shall be in accordance with Section 308.8
4. Open burning for agricultural purposes may be approved by the Chief in accordance with Section 308.9

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

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

### **308.7 Trench burners.**

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

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

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



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

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

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

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

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

5. Every trench burner must be attended when in operation. The trench burner shall be completely extinguished before being left unattended.

**308.7.5. Permit application.** The permit application must contain the following:

1. The name, address, and phone number of the individual or entity that owns the trench burner unit.
2. The name, address, and phone number of the individual or entity responsible for the operation of the trench burner unit.
3. A description of the site to be cleared, and the name, address and telephone number of owner of the property.
4. An operating schedule including initial date of operation and expected number of weeks of operation.
5. A copy of the Texas Commission on Environmental Quality permit issued for the construction of the unit, if a permit is required.
6. A statement from the applicant confirming the applicant will inform the Drainage Utility Department, or its successor department, of the dates the trench burner will be operating.
7. A description of the type and quantity of petroleum product utilized to ignite the trench burner. If this is to be stored at the site, then the manner of storage and quantity to be stored must be described. The method of igniting the trench burner must be described.
8. Proof that the applicant has current liability insurance in the amount of \$1,000,000 for personal injuries, and \$500,000 for property damage any time the trench burner is in use.
9. The payment of the permit fee as established by the City Council.
10. Certification from the Watershed Protection and Development Review Department, or its successor department, as required by Article 308.7.6 of this Code.
11. A construction permit from the Texas Natural Resource Conservation Commission must be obtained if required by Commission rule. If the trench burner is exempt from the Commission permit requirements all conditions of the exemption must be complied with.

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

1. The bottom of the trench is located at a minimum distance of 50 feet from the water table;
2. No fissures are located inside or adjacent to the trench;
3. Ignition fuel shall be limited to combustible liquids, as defined by this Code. Approval shall also be granted where an alternative to the use of combustible liquids is used to ignite the trench;
4. The method of igniting the trench ensures no amount of combustible liquid greater than necessary to ignite the trench will be used; and,
5. The manner of storage of the product at the site is designed to prevent any leak or accidental discharge, and where applicable, the hazardous materials storage and registration requirements are met.
6. An environmental review shall be conducted of the watershed of Lake Austin, Lake Travis, or with the aquifer-related watershed of Barton, Williamson, Slaughter, Big Bear, Little Bear and Onion Creek, including the Edwards Aquifer recharge zone North and South of the Colorado River, all as shown on the hazardous materials storage and registration map on file in the offices of the City Clerk.

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

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

1. Engineered and constructed of material and of a gauge to withstand normal operating temperature of 1200° F or higher without deformation.
2. Chimneys serving mobile incinerators must terminate into a spark arrester having an area not less than four times the net free area of the chimney. Openings shall not permit the passage of spheres having a diameter larger than ½ inch nor block the passage of spheres having a diameter smaller than 3/8 inch.
3. The exterior wall of the mobile incinerator must be of double wall construction. The incinerator must be designed that the temperature rise above ambient temperature (750° F + 5° F) of any portion of the incinerator accessible to the

operator shall not exceed 150° F. Insulation must be installed or adequate airspace provided between the external casing and the inner wall as required to meet this temperature limitation.

4. Mobile incinerators must be constructed with a dual combustion chamber of which the secondary chamber must maintain a temperature of 1200° F or higher at all times waste material is being reduced by oxidation caused by heat of combustion.
5. The secondary chamber must be provided with a thermocouple connected to a temperature display for monitoring the temperature.
6. Any design not in compliance with the criteria and appropriate nationally recognized standards must have the construction reviewed and submitted as an alternative method under the seal of a registered professional engineer or a recognized testing laboratory.

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

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

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

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

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

1. Suitable fire protection must be present within a distance of 20 feet at all times of operation. Suitable fire protection consists of an approved water extinguisher having a minimum rating of 10-A, and one dry chemical portable fire extinguisher with at least a 2A-10BC rating.
2. Material to be incinerated may not be stored within 10 linear feet of any surface of the mobile incinerator's combustion chamber, chimney or hot ashes.
3. The mobile incinerator must be enclosed by a portable security fence of a minimum of four feet, or other equivalent approved barrier, which completely surrounds the mobile incinerator providing a clear space of five feet at all times when the unit is in operation. The fencing may not be removed until the incinerator is cool to the touch.
4. The mobile incinerator must not be moving and must be in a fixed position when operational or cooling.
5. Every mobile incinerator must be attended when in operation. It shall be completely extinguished before being left unattended.

**308.8.5. Permit application.** The permit application must contain the following:

1. Name, address, and phone number of the individual or entity that owns the mobile incinerator.
2. Name, address, and phone number of the individual or entity responsible for the operation of the mobile incinerator.
3. Name, address, and phone number of the owner of the property where the mobile incinerator is to be operated.
4. Copy of the Texas Commission on Environmental Quality permit or exemption letter issued for the use of the unit. (See Chapter 382, Health and Safety Code).
5. Proof that the applicant has in effect liability insurance in the amount of \$1,000,000 for personal injuries, and \$500,000 for property damage any time the mobile incinerator is in use.
6. Written permissions of the owner of the property where the mobile incinerator is to be operated.

7. Certification from the Watershed Protection and Development Review Department, or its successor department, as required by Article 308.8.6 of this Code.
8. The payment of the permit fee as established by City Council.

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

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

**308.9 Agricultural burning.**

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

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

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

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

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

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

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

**401.3 Emergency forces notification.** In the event an unwanted fire occurs or upon the discovery of a fire, explosion, deflagration, smoke or unauthorized release of flammable, toxic, or hazardous materials on any property, the owner or occupant shall immediately report such condition to the fire department. Building employees and tenants shall implement the appropriate emergency plans and procedures. No person shall, by verbal or written directive, require any delay in the reporting of a fire or unauthorized chemical release to the fire department.

**401.3.1 Making false report.** It shall be unlawful for a person to give, signal, or transmit a false alarm.

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

**401.3.3 Emergency evacuation drills.** Nothing in this section shall prohibit the sounding of a fire alarm signal for the carrying out of an emergency evacuation drill in accordance with the provisions of Section 405.

**401.3.4 Emergency response teams and fire brigades.** Facilities complying with Section 2703.9.1 by maintaining on-site emergency response teams (ERT) or industrial fire brigades that comply with the requirements of Occupational Safety and Health Administration (OSHA) regulations in 29 CFR 1910.120 or Subpart L may, on completion of an audit (audits may be performed during annual inspections by the Fire Department) of compliance by the Chief and contingent on continued ERT/fire brigade compliance, develop site-specific procedures for determining reporting requirements based on facility staffing and qualifications.

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

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

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

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

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

1. Airport traffic control towers in accordance with Section 412 of the 2003 *International Building Code*.
2. Open parking garages in accordance with Section 406.3 of the 2003 *International Building Code*.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the 2003 *International Building Code*.
4. Low-hazard special industrial occupancies in accordance with Section 503.1.2 of the 2003 *International Building Code*.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the 2003 *International Building Code*.

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

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

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

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

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

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

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

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 25 feet (7620 mm), except for approved security gates in accordance with



Section 503.6 and the Fire Protection Criteria Manual, and an unobstructed vertical clearance of not less than 14 feet (4267 mm).

**Exceptions:**

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

**503.3 Designation, location, and maintenance of fire zones official records.** All fire apparatus access roads required by Sections 503.1.1 and 2306.6, and that are out of the public right-of-way, are designated as fire zones, to maintain the required unobstructed clearance in accordance with Section 503.2.1 as amended.

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

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

**503.3.2 Signs and Identification Markers Designating Fire Zones/Fire Lanes.** After designation of a fire zone under this article, the Chief shall give notice of the designation to the owner of the property, directing the owner to cause, at the expense of the owner,

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

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

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

**508.5.1 Where required.** Where any portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, additional public hydrants and/or on-site fire hydrants and mains shall be provided where required by the fire code official.

**Exceptions:**

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

**508.5.3 Private fire service mains and water tanks.** Private fire service mains, including private fire hydrants, and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25 and American Water Works Association

(AWWA) Manual M-17, Installation, Field Testing and Maintenance of Fire Hydrants at the following intervals:

1. Private fire hydrants (all types): Inspection annually and after each operation; flow test and maintenance annually to ensure proper functioning in accordance with the following:
  - a. Private fire hydrants shall be flushed annually. Chlorine residual tests will be performed on all private hydrant systems not separated from potable water uses by an approved back-flow prevention device. The unseparated hydrants shall be flushed until the free chlorine residual meets or exceeds the 0.2 mg/l minimum established by the Texas Commission on Environmental Quality in section 290.46(f)(1) of the Rules and regulations for Public Water Systems. Chlorine residual shall be determined using the N,N-diethyl-p-phenylenediamine (DPD) method.
  - b. Static testing shall be performed in accordance with AWWA Manual M-17, Installation, Field Testing and Maintenance of Fire Hydrants, chapter 4.
  - c. Flow tests shall be conducted in accordance with Manual M-17, Installation, Field Testing and Maintenance of Fire Hydrants, chapter 6.
2. Fire service main piping: Inspection of exposed, annually; flow test every 5 years.
3. Fire service main piping strainers: Inspection and maintenance after each use.

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

All fire hydrants shall be painted in accordance with City of Austin Standard Specifications. With the approval of the Chief, private hydrants may be painted an alternate reflective color; multi-colored hydrants are prohibited.

When required by the chief, hydrant locations shall be identified by the installation of reflective markers.

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

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

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

**508.6.1 Special inspections.** The City of Austin Water & Wastewater Department shall inspect private property to identify each existing private fire hydrant connected to the City's potable water distribution system. The owner of the property or the water service customer shall bear the costs and the responsibility to provide a flushing and maintenance program in accordance with Section 508.5.3 or to provide backflow prevention protection in accordance with Chapter 18-5 of the City Code.

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

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

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

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

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

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

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

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

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

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

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

**904.11 Commercial cooking systems.** The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Each pre-engineered automatic dry- and wet-chemical extinguishing system shall be tested in accordance with UL 300 and listed and labeled for its intended application. Other types of extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Automatic fire suppression systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:

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

**Exception 1:** Factory-built commercial cooking recirculating systems that are tested in accordance with UL 197, and listed and installed in accordance with Section 304.1 of the International Mechanical Code.

**Exception 2:** With the concurrence of the Building Official, commercial cooking equipment used intermittently for periods which total less than 6 hours per week may be

served by a Class 2 ventilation hood without fixed fire suppression. A portable fire extinguisher rated for commercial cooking applications shall be provided.

**905.1 General.** Standpipe systems shall be provided in new buildings and structures in accordance with this section. Fire hose threads used in connection with new fire standpipe systems shall be approved and shall be National Standard Hose Thread. Except as otherwise approved by the Chief, existing standpipe fire hose threads shall be national standard hose thread. The location of fire department hose connections shall be approved. In buildings used for high-piled combustible storage, fire protection shall be in accordance with Chapter 23.

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

**905.3.4.1 Hose and cabinet.** If hose is installed, the 1.5-inch (38 mm) hose connections shall be equipped with sufficient lengths of 1.5-inch (38 mm) hose to provide fire protection for the stage area. Hose connections provided with hose shall be equipped with an approved adjustable fog nozzle and the hose and nozzle shall be mounted in a cabinet or on a rack.

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

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

1. In all Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.
2. Within 30 feet (9144 mm) of commercial cooking equipment.
3. In areas where flammable or combustible liquids are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 1415.1.
5. Where required by the sections indicated in Table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the chief.

**907.2.1.3 Electrical shunt for amplified sound conditions.** For venues with amplified music or sound systems, in Group A occupancies having an occupant load of 300 or

more, electrical shunts shall be provided to de-energize the music or sound systems upon alarm activation as necessary to demonstrate compliance with the audibility requirements of NFPA 72.

#### **907.2.3.1 Common areas within day care occupancies.**

Except when housed in a single room, day care occupancies shall be protected by a smoke detection system in accordance with this Code and associated standards. Detectors must be placed on each story in front of doors to the stairways and at no greater spacing than the detector's listed spacing in the corridors of all floors containing the day care facility. Detectors must also be installed in lounges, recreation areas and sleeping rooms in the day care occupancy and as required by the Building Code. Alarms shall be visible and audible throughout the day care facility.

Exception: An E-3 occupancy housed within and serving the students of an E-1, or E-2 occupancy, such as an after school program, summer program, or similar function, are permitted to comply with the alarm and detection requirements of the E-1 or E-2 occupancy it is housed within.

#### **907.2.6.3 Common areas within day care occupancies.**

Except when housed in a single room, day care occupancies shall be protected by a smoke detection system in accordance with this Code and associated standards. Detectors must be placed on each story in front of doors to the stairways and at no greater spacing than the detector's listed spacing in the corridors of all floors containing the day care facility. Detectors must also be installed in lounges, recreation areas and sleeping rooms in the day care occupancy and as required by the Building Code. Alarms shall be visible and audible throughout the day care facility.

**907.2.8.2 Automatic fire alarm system.** An approved automatic fire alarm system shall be installed throughout all group R-1 occupancies. Listed system-type automatic detector shall be installed within common areas such as recreational rooms, laundry rooms, furnace rooms, and similar areas within the same building containing guest rooms.

**Exception:** An automatic fire detection system is not required in buildings that do not have interior corridors serving guestrooms when each guestroom has a means of egress door opening directly to an exterior exit access that leads directly to an exit and recreational rooms, laundry rooms, furnace rooms, and similar areas are not located within the same building.

**907.2.9 Group R-2.** An approved manual and automatic fire alarm system shall be installed in Group R-2 occupancies where:

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

Listed system-type automatic detector shall be installed within common areas such as recreational rooms, laundry rooms, furnace rooms, and similar areas.

**Exceptions:**

1. A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, exit court or yard.
2. Manual fire alarm boxes are not required throughout the building when all the following conditions are met:
  - 2.1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or Section 903.3.1.2;
  - 2.2. The notification appliances will activate upon sprinkler flow; and
  - 2.3. At least one manual fire alarm box is installed at an approved location.
3. A separate fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Sections 903.3.1.1 or 903.3.1.2, provided that sprinkler system activation results in a local alarm designed to notify all occupants and dwelling units 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 1022.6, Exception 4.

**907.3.2.3 Power source.** In Group R occupancies, single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

**Exception:** Smoke alarms are permitted to be solely battery operated: in existing buildings where no construction is taking place; in buildings that are not served from a commercial power source; and in existing areas of buildings undergoing alterations or



repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure.

**907.10.1.4 Group R-2.** In Group R-2 occupancies required by Section 907 to have a fire alarm system, dwelling units and sleeping units shall be provided with visible alarm notification appliances or the capability to support such appliances in accordance with ICC A117.1 as required by Federal and State laws and regulations.

**907.15 Monitoring.** Where fire alarm systems are required by this chapter or by the *International Building Code*, such fire alarm systems shall be monitored by an approved central station, proprietary station or remote station service, or by a local alarm which gives audible and visual signals at a constantly attended location.

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

1. Single- and multiple-station smoke alarms required by Section 907.2.10.
2. Automatic sprinkler systems in one- and two-family dwellings.

**912.1.1 Number of hose connections.** Fire department connections (FDC's) shall include a minimum of two (2) 2 1/2 inch (63.5 mm) female National Standard Hose Thread (NST) inlet connections. Where system design flow rates exceed 500 gpm (1,893 lpm), a minimum of one FDC inlet connection shall be installed for each 250 gpm (946 lpm) or portion thereof.

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

**1002.1 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein. The definitions in the 2003 IFC are adopted as published except that the definitions for "STAIR" and "EXTERIOR STAIR" are amended as follows.

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

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

**1004.2 Increased occupant load.** The occupant load permitted in any building or portion thereof is permitted to be increased from that number established for the occupancies in Table 1004.1.2 provided that all other requirements of the code are also met based on such modified number and the overall occupant load shall not exceed one occupant per 7 square feet (0.65 m<sup>2</sup>) of occupiable floor space. Where required by the fire code official,

an approved aisle, seating or fixed equipment diagram substantiating any increase in occupant load shall be submitted. Where required by the fire code official, such diagram shall be posted.

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

**TABLE 1004.1.2  
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

<b>Occupancy</b>	<b>Floor Area in sq. ft. per Occupant</b>
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (standing room)	7 net
Queuing line	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross

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

**1005.1 Minimum required egress width.** The means of egress width shall not be less than required by this section. The total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by the 0.3 inches (7.62 mm) per occupant for stairways and 0.2 inches (5.08 mm) per occupant for all other means of egress and not less than specified elsewhere in this code. Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity to less than 50 percent of the required capacity. The maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.

**Exception:** Means of egress complying with Section 1024.

**1008.1.9 Panic and fire exit hardware.** Where panic and fire exit hardware is installed, it shall comply with the following:

1. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.
2. A maximum unlatching force of 15 pounds (67 N).

Each door in a means of egress from an occupancy of Group A or E having an occupant load of 50 or more and any occupancy of Group H-1, H-2, H-3 or H-5 shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

If balanced doors are used and panic hardware is required, the panic hardware shall be the push-pad type and the pad shall not extend more than one-half the width of the door measured from the latch side.

**1025.2 Minimum size.** Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet ( $0.53 \text{ m}^2$ ) and a minimum net clear openable width dimension in either direction of 24 inches (610 mm).

**1025.2.1 Minimum dimensions.** The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 24 inches (610 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

**1503.5 Mixing and blending area.** Mixing, blending, and similar operations involving less than 10 gallons of Class I or Class II liquids, outside of a room approved for inside use, dispensing and mixing in accordance with 3405.3.7, must be performed in an area meeting the following requirements:

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

**TABLE 1804.2.1**  
**QUANTITY LIMITS FOR HAZARDOUS MATERIALS IN A SINGLE**  
**FABRICATION AREA IN GROUP H-5a**

<b>HAZARD CATEGORY</b>	<b>SOLIDS</b> (pounds/square foot)	<b>LIQUIDS</b> (gallons/square foot)	<b>GAS</b> (cubic foot@NTP/square foot)
<b>PHYSICAL-HAZARD MATERIALS</b>			
Combustible dust	Note b	Not Applicable	Not Applicable
Combustible fiber			
Loose	Note b	Not Applicable	Not Applicable
Baled	Note b		
Combustible liquid			
Class II		0.01	
Class IIIA	Not	0.02	Not Applicable
Class IIIB	Applicable	Not Limited	
Combination Class I, II and IIIA		0.04	
Cryogenic gas			
Flammable	Not	Not Applicable	Note c
Oxidizing	Applicable		1.25
Explosives	Note b	Note b	Note b
Flammable gas			
Gaseous	Not	Not Applicable	Note c
Liquefied	Applicable		Note c
Flammable liquid			
Class IA		0.0025	
Class IB		0.025	
Class IC	Not	0.025	Not Applicable
Combination Class IA, IB and IC	Applicable	0.025	
Combination Class I, II and IIIA		0.04	
Flammable solid	0.001	Not Applicable	Not Applicable
Organic peroxide			
Unclassified detonable	Note b	Note b	
Class I	Note b	Note b	
Class II	0.025	0.025	Not Applicable
Class III	0.1	0.1	
Class IV	Not Limited	Not Limited	
Class V	Not Limited	Not Limited	
Oxidizing gas	Not	Not Applicable	

Gaseous	Applicable		1.25
Liquefied			1.25
Combination of Gaseous and Liquefied			1.25
Oxidizer			
Class 4	Note b	Note b	
Class 3	0.003	0.003	
Class 2	0.003	0.003	
Class 1	0.003	0.003	
Combination oxidizer	0.003	0.003	
Class 1, 2, 3			Not Applicable
Pyrophoric	Note b	0.00125	Notes c and d
Unstable reactive			
Class 4	Note b	Note b	Note b
Class 3	0.025	0.025	Note b
Class 2	0.1	0.1	Note b
Class 1	Not Limited	Not Limited	Not Limited
Water reactive			
Class 3	Note b	0.00125	
Class 2	0.25	0.025	Not Applicable
Class 1	Not Limited	Not Limited	
<b>HEALTH-HAZARD MATERIALS</b>			
Corrosives	Not Limited	Not Limited	Not Limited
Highly toxics	Not Limited	Not Limited	Note c
Toxics	Not Limited	Not Limited	Note c

For SI: 1 pound per square foot = 4.882 kg/m<sup>2</sup>, 1 gallon per square foot = 0.025 L/m<sup>2</sup>, 1 cubic foot @ NTP/square foot = 0.305 m<sup>3</sup> @NTP/m<sup>2</sup>,  
1 cubic foot = 0.02832 m<sup>3</sup>.

- Hazardous materials within piping shall not be included in the calculated quantities.
- Quantity of hazardous materials in a single fabrication shall not exceed the maximum allowable quantities per control area in Tables 2703.1.1(1) and 2703.1.1(2).
- The aggregate quantity of flammable, pyrophoric, toxic and highly toxic gases shall not exceed 9,000 cubic feet at NTP.
- The aggregate quantity of pyrophoric gases in the building shall not exceed the amounts set forth in Table 2703.8.2.

## **CHAPTER 22**

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

**2201.1 Scope.** Automotive motor fuel-dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities, automobile wrecking yards, and repair garages shall be in accordance with this chapter and the *International Building Code*, *International Fuel Gas Code* and the *International Mechanical Code*. Such operations shall include both operations that are accessible to the public and private operations.

#### **SECTION 2212**

#### **AUTOMOBILE WRECKING YARDS**

**2212.1 Scope.** Automobile wrecking yards shall comply with this section and the *International Building Code*. For rubbish handling operations, see Chapters 3 and 29.

**2212.2 Fire apparatus access roads.** Fire apparatus access roads shall be constructed and maintained throughout the site in accordance with Section 503.

**2212.3 Welding and cutting.** Welding and cutting operations shall be in accordance with Chapters 26 and 30.

**2212.4 Housekeeping.** Combustible rubbish accumulated on the site shall be collected and stored in approved containers, rooms or vaults of noncombustible materials. Combustible vegetation, cut or uncut, shall be removed when determined by the chief to be a fire hazard.

**2212.5 Fire protection.** Offices, storage buildings and vehicles used for site operations shall each be provided with at least one portable fire extinguisher with a rating of not less than 4-A:40-B:C. When required by the chief, additional portable fire extinguishers shall be provided in specific use areas in accordance with NFPA 10.

**2212.6 Tires.** Tires shall be stored on racks in an approved manner or shall be piled in accordance with Chapter 25.

**2212.7 Burning operations.** The burning of salvage vehicles and salvage or waste materials shall be in accordance with Chapter 3 and federal, state or local air quality control regulations.

**2212.8 Motor vehicle fluids and hazardous materials**

**2212.8.1 General.** The storage, use and handling of motor vehicle fluids and hazardous materials, such as those used to operate air bags and electrical systems, shall be in accordance with Section 2212, Section 2211, Chapter 27, and Chapter 34.

**2212.8.2 Motor vehicle fluids.** Motor vehicle fluids shall be drained from salvage vehicles when such fluids are leaking. Storage and handling of motor vehicle fluids shall be done in an approved manner. Flammable and combustible liquids shall be stored and handled in accordance with Section 2211, Chapter 27, and Chapter 34.

**2212.8.3 Mitigation for vehicle fluid leaks.** Supplies or equipment capable of mitigating leaks from fuel tanks, crankcases, brake systems and transmissions shall be kept available on site. Single- use plugging, diking and absorbent materials shall be disposed of as hazardous waste and removed from the site in a manner approved by federal, state or local requirements.

**2212.8.4 Air bag systems.** Removed air bag systems shall be handled and stored in accordance with Chapter 27.

**2212.8.5 Lead-acid batteries.** Lead-acid batteries shall be removed from salvage vehicles when such batteries are leaking. Lead-acid batteries that have been removed from vehicles shall be stored in an approved manner.

**2212.8.6. Container destruction.** Destruction of vehicle containers containing liquids or gases defined as flammable or combustible by this Code is prohibited unless the containers are properly drained and the by-product stored or disposed of in accordance with Chapter 27, are filled with an inert material or purged, and at the time of destruction, have a vapor content less than 25 percent of the by-product's lower explosive limit or an oxygen content of less than 10 percent.

**2701.1.2** This Article regulates the handling and storage of hazardous materials in aboveground storage facilities. Underground storage facilities are regulated by Chapter 14-3 of the Austin City Code of 1992, as amended.

**2701.2 Material classification.** Hazardous materials are those chemicals or substances defined as such in this code. Definitions of hazardous materials shall apply to all hazardous materials, including those materials regulated elsewhere in this code. For descriptions and examples of materials included in hazard categories, see Appendix E. For the purposes of interpreting the term "highly toxic", the Chief shall use the NFPA Standard No. 704 rating of 4. On written request of an permit applicant or permit holder, the Chief may substitute alternative specifications and guidelines for the standards normally used in determining hazard ratings as outlined in Section 105.6, provided the applicant or permit holder submits suitable evidence that the proposed alternative will meet or exceed the requirements of this Chapter.



**2701.2.3 Radioactive materials.** Storage of radioactive materials shall be in accordance with the provisions set forth by the Texas Department of Health, Bureau of Radiation Control. For the purposes of building design, occupancies using or storing radioactive materials, with the potential of being designated a "Radiation Area" under Federal or State law or regulations, shall comply with the construction requirements of a Group H, Division 4 occupancy unless more stringent requirements are imposed by Federal or State regulations.

**2701.5 Permits.** No person, firm, or corporation may store, dispense, use, or handle hazardous materials in more than the quantities named in Section 105.6 unless a valid permit has been issued under this Chapter.

When required by the Chief, permit holders shall apply for approval to permanently close a storage, use or handling facility. Such application shall be submitted at least 30 days prior to the termination of the storage, use or handling of hazardous materials. The Chief is authorized to require that the application be accompanied by an approved facility closure plan in accordance with Section 2701.6.3.

#### **2701.5.1 Hazardous materials management plan.**

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

1. Storage locations and use areas.
2. Maximum amount of each material stored or used in each area.
3. Range of container sizes.
4. Locations of emergency isolation and mitigation valves and devices.
5. Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines.
6. On and off positions of valves for valves that are of the self-indicating type.
7. Storage plan showing the intended storage arrangement, including the location and dimensions of aisles.
8. The location and type of emergency equipment. The plans shall be legible and drawn approximately to scale. Separate distribution systems are allowed to be shown on separate pages.

#### **2701.5.2 Hazardous materials inventory statement**

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

1. Manufacturer's name.
2. Chemical names, trade names, hazardous ingredients.
3. Hazard classifications including the NFPA 704 rating of each chemical.
4. United Nations (UN), North America (NA) and the Chemical Abstract Service (CAS) identification number (as applicable and as available).
5. Maximum quantity stored or used on-site at one time.
6. Storage conditions related to the storage type, temperature and pressure.

**2701.7 Permit procedure.** A hazardous materials permit shall be granted after:

1. The applicant has filed with the Fire Department a completed hazardous materials permit application, in accordance with 2701.5 and this section; and
2. The applicant has paid the application fee as established by the City Council.

**2701.7.1 Application.** A Hazardous Materials Permit Application shall include the following:

1. General information including the name, address, and telephone number of the facility, the number of employees, hours of operation, and a name and emergency telephone number of the primary emergency contact person;
2. An HMMP in accordance with 2701.5.1 which includes a facility site plan and a storage map. The storage map shall identify the location of hazardous materials storage areas, and access to the materials;
3. A hazardous materials inventory statement (HMIS) in accordance with 2701.5.2.

**2701.7.1.1** The facility site plan required in Section 2701.5.1 may be omitted from applications when, in the opinion of the Chief, the plan will not provide additional information necessary to prevent an actual or potential hazard to the public health, safety, or welfare (including the health, safety, or welfare of firefighters) or to facilitate the Fire Department's response in the event of an emergency involving hazardous materials at the facility.

**2701.7.2** No person, firm, or corporation may install, repair, abandon, remove, place temporarily out of service, close, or substantially modify a storage facility or other area required to be permitted under this Article without a permit. (See Section 2701.6.3.)

**Exceptions:**

1. Routine maintenance.

2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.
3. Registered Industrial Plants may perform work in accordance with the provisions of the building code and rules governing the facilities.

Permit holders shall apply for approval to close bulk storage, use, or handling facility at least 30 days before the termination of the storage, use, or handling of hazardous materials. The applicant shall include any change or alteration of the facility closure plan filed under Section 2701.6.3 of this Chapter. This 30 day period may be waived by the Chief.

**2701.7.3 Permit effective date.** The Fire Department shall grant or deny a permit application no later than 60 days after receipt of the completed application. The Department will provide written confirmation to the applicant demonstrating receipt of the application within 30 days of receipt of the application. If the Department fails to grant or deny the permit within 60 days, the permit is considered to be issued and in effect. The Fire Department shall inspect the business for satisfactory storage and use of hazardous materials. The operation of a facility under a permit issued before inspection constitutes the permission of the facility owner/operator for the Chief to enter on the facility for the purpose of conducting the required inspection. Refusal to allow the inspection shall constitute a prima facie cause to revoke the permit under Section 105.6.

**2701.7.4 Permit term and renewal.** A permit is granted for a term of three years. Permits shall be required to be renewed every three years on the anniversary of permit issuance. At the discretion of the Chief, a permit may be issued for a shorter period. The fee assessed for the permits shall be prorated for the appropriate time. If a permit is issued for a shorter period at the request of the applicant, an additional handling fee may be assessed, not to exceed the actual cost of clerical processing time.

**2701.7.5 Annexation procedure.** A facility brought under regulation by this Article through annexation shall file a permit application with the Fire Department no later than 90 days after the effective date of annexation. The Department shall grant or deny a permit application submitted under this subsection no later than six months after receipt of the completed application. If the Department fails to grant or deny the permit within the period, the permit is considered to be issued and in effect. The Fire Department shall inspect the business for satisfactory storage or use of hazardous materials. The operation of a facility under a permit issued before inspection constitutes the permission of the facility owner/operator for the Chief to enter on the facility for the purpose of conducting the required inspection. Refusal to allow the inspection shall constitute a prima facie cause to revoke the permit under Section 105.6.

**2701.7.6 Permit denial.** If the Fire Department denies a permit, the Department shall notify the applicant in writing of the action. The notification must include a statement of the Department's reasons for the action.

**2701.7.7 Transfer.** A permit may be transferred to a new owner or operator of a business at the same location if the new owner or operator by letter to the Fire Department accepts responsibility for all obligations under this Article at the time of the transfer of the business. All permit transfers are subject to the approval of the Chief.

**2701.7.8 Fees.** No permit may be granted, renewed or continued in effect until the fee as established by the City Council has been paid. The fee shall be paid at the time an application is filed.

**2701.7.9 Amendment.** Any information required to be submitted by this Article shall be amended or supplemented no later than 30 days after the occurrence of an event that would render the information inaccurate. An amendment or supplement is not required in the following cases unless the change(s) would affect the ability of emergency response personnel to safely respond to an emergency:

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

## **SECTION 2702 DEFINITIONS**

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

**Bulk storage.** Storage of material(s) in a specific area in excess of the following aggregate quantity limits:

Liquids: 500 gallons  
Solids: 2,000 pounds  
Gas: 12,000 cubic feet

**Permanent storage.** Storage for a period of over 30 days.

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

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

**2703.3.1.4 Responsibility for cleanup.** The person, firm or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. When deemed necessary by the fire chief, cleanup may be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator or other person responsible for the unauthorized discharge. Such costs shall include but shall not be limited to:

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

**2703.9.8 Separation of incompatible materials.** Incompatible materials in storage and storage of materials that are incompatible with materials in use shall be separated when the stored materials are in containers having a capacity of more than 5 pounds (2 kg) or 0.5 gallon (2 L). Separation shall be accomplished by:

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

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

2. Isolating incompatible materials in storage by a noncombustible partition extending not less than 18 inches (457 mm) above and to the sides of the stored material.
3. Storing liquid and solid materials in hazardous material storage cabinets.
4. Storing compressed gases in gas cabinets or exhausted enclosures in accordance with Sections 2703.8.5 and 2703.8.6. Materials that are incompatible shall not be stored within the same cabinet or exhausted enclosure.

**2704.2 Spill control and secondary containment for liquid and solid hazardous materials.** Tanks, rooms, buildings or areas used for the storage of liquid or solid hazardous materials shall be provided with spill control and secondary containment in accordance with Sections 2704.2.1 through 2704.2.3.

**Exception:**

1. Outdoor storage of containers on approved containment pallets in accordance with Section 2704.2.3.
2. Liquids that are a gas at NTP

**2704.2.1 Spill control for hazardous material liquids.** Tanks, rooms, buildings or areas used for the storage of hazardous material liquids in excess of the maximum allowable quantities established by Tables 2703.1.1(1) and 2703.1.1(2) shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
2. Liquid-tight floors in indoor locations or similar areas in outdoor locations provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems.
4. Other approved engineered systems. Except for surfacing, the floors, sills, dikes, sumps and collection systems shall be constructed of noncombustible material, and the liquid-tight seal shall be compatible with the material stored. When liquid-tight sills or dikes are provided, they are not required at perimeter openings having an open-grate trench across the opening that connects to an approved collection system.

**2704.2.2 Secondary containment for hazardous material liquids and solids.** Where required by Table 2704.2.2 tanks, buildings, rooms or areas used for the storage of hazardous materials liquids or solids shall be provided with secondary containment in accordance with this section when the quantity of materials exceeds the maximum allowable quantity as established by Tables 2703.1.1(10) and 2703.1.1(2).

**2704.2.2.1 Drainage methods.** The building, room or area shall contain or drain the hazardous materials and fire protection water through the use of one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.

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

**2704.2.2.2 Incompatible materials.** Incompatible materials used in open systems shall be separated from each other in the secondary containment system. Incompatible materials are allowed to be combined when they have been rendered acceptable by an approved means for discharge into the public sewer.

**2704.2.2.3 Indoor design.** Secondary containment for indoor storage areas shall be designed to contain a spill from the largest vessel plus the design flow volume of fire protection water calculated to discharge from the fire-extinguishing system over the minimum required system design area or area of the room or area in which the storage is located, whichever is smaller. The containment capacity shall be designed to contain the flow for a period of 20 minutes.

**2704.2.2.4 Outdoor design.** Secondary containment for outdoor storage areas shall be designed to contain a spill from the largest individual vessel. If the area is open to rainfall, secondary containment shall be designed to include the volume of a 24-hour rainfall as determined by a 25-year storm and provisions shall be made to drain accumulations of ground water and rainwater.

**2704.2.2.5 Monitoring.** An approved monitoring method shall be provided to detect hazardous materials in the secondary containment system. The monitoring method is allowed to be visual inspection of the primary or secondary containment, or other approved means. Where secondary containment is subject to the intrusion of water, a monitoring method for detecting water shall be provided. Where monitoring devices are provided, they shall be connected to approved visual or audible alarms.

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

**2704.2.2.6 Drainage system design.** Drainage systems shall be in accordance with the *International Plumbing Code* and all of the following:

1. The slope of floors to drains in indoor locations, or similar areas in outdoor locations shall not be less than 1 percent.
2. Drains from indoor storage areas shall be sized to carry the volume of the fire protection water as determined by the design density discharged for 20 minutes from the automatic fire-extinguishing system over the minimum required

system design area or area of the room or area in which the storage is located, whichever is smaller.

3. Drains from outdoor storage areas shall be sized to carry the volume of the fire flow and the volume of a 24-hour rainfall as determined by a 25-year storm.
4. Materials of construction for drainage systems shall be compatible with the materials stored.
5. Incompatible materials used in open systems shall be separated from each other in the drainage system. Incompatible materials are allowed to be combined when they have been rendered acceptable by an approved means for discharge into the public sewer.
6. Drains, including overflow from secondary containment, shall terminate in an approved location away from buildings, valves, means of egress, fire access roadways, adjoining property, storm drains, waterways and critical environmental features (CEF's). Tanks shall be set back at 150 feet (45,720 mm) from any recognized waterway or CEF.

**2705.1.8.1** Gas cabinets, exhausted enclosures, and exhaust ducts with a cross sectional dimension of 10 inches or greater shall be internally sprinklered.

**3104.2 Outdoor storage.** Outdoor storage of corrosive materials shall be in accordance with Sections 2701, 2703, 2704 and this chapter.

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

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

**3104.2.1 Above-ground outside storage tanks.** Above-ground outside storage tanks of corrosive liquids shall be provided with secondary containment in accordance with Section 2704.2.2.

**3104.2.2 Distance from storage to exposures.** Outdoor storage of corrosive materials shall not be within 20 feet (6096 mm) of buildings not associated with the manufacturing or distribution of such materials, lot lines, public streets, public alleys, public ways or means of egress. A 2-hour fire barrier wall without openings or penetrations, and extending not less than 30 inches (762 mm) above and to the sides of the storage area, is allowed in lieu of such distance. The wall shall either be an independent structure, or the exterior wall of the building adjacent to the storage area.

**3204.3.1.1 Location.** Stationary containers shall be located in accordance with Section 3203.6. Containers of cryogenic fluids shall not be located within diked areas containing



other hazardous materials. Storage of flammable cryogenic fluids, including liquefied natural gas (LNG), in aggregate quantities exceeding 15,000 gallon water capacity is prohibited outside of a light industry (LI) zoning district except as provided in this Section.

The placement of aboveground or below ground containers of flammable cryogenic fluids, including liquefied natural gas (LNG), in aggregate quantities exceeding 15,000 gallon water capacity may be permitted outside of a light industry (LI) zoning district by the Chief only after a public hearing to assess the potential effect on the community. Notice of the hearing shall be accomplished in accordance with the established procedures outlined in the Land Development Code for notice of applications and administrative actions or decisions.

**3301.1.6 Jurisdiction.** This Chapter applies within the City of Austin. The doing or performing of any act in violation of this Chapter is additionally defined as a nuisance and prohibited within the City of Austin and within 5,000 feet outside the limits. The Chief shall enforce this Article to prevent and summarily abate and remove the nuisance in accordance with Local Government Code Section 217.042. This section does not apply within any portion of the five thousand foot area that is contained within the territory of another municipality as defined in Local Government Code, Section 1.005.

**3301.2.4 Financial responsibility.** Before a permit is issued, as required by Section 3301.2, the applicant shall file with the jurisdiction a public liability insurance policy in the principal sum of \$1,000,000 for personal injuries and \$500,000 for property damage. The policy shall be current and shall name the City of Austin as an additional insured for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The Chief is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

**3301.2.5 Permit denial.** When in the opinion of the Chief there is a substantial danger to life, health, or property in the immediate area exposed to the blasting for which a permit is being requested, the request shall be denied.

**3301.2.6 License required.** The Chief may in the interest of public safety require that the persons engaged in the use of explosives meet specific licensing requirements (See Section 3301.9) as a condition of the permit.

**3301.2.7 Permit application.** To obtain a permit the licensed blaster must file with the Chief an application in writing on a form to be furnished by the Chief. Each application must describe the proposed work, the location of the work, and the other pertinent information as may be required.

**3301.2.8 Permit review.** The Chief may require written comments on each permit application from the various affected City of Austin departments. When in the opinion of the Chief the departments have a valid objection to the issuance of a permit, no permit may be approved until the objection has been resolved to the satisfaction of the Chief.

**3301.2.9 Permit fees.** Permits authorized by the provisions of Section 3301.2 may be issued only on payment of the appropriate fee as established by the City Council. City of Austin departments are not required to pay permit fees when engaged in the work described in this section.

### **3301.9. Blasting licenses.**

**3301.9.1. General.** No person may engage in the use of explosive material within the City of Austin unless that person is licensed under this article or is under the direct supervision of a person licensed under this article.

**3301.9.2.** No person may engage in the use of explosive material within the City of Austin unless that person meets the specific license requirements of the blasting permit granted by Section 3301.2, or be under the direct supervision of a person so licensed.

**3301.9.3.** A license issued under this section is valid for a period of one year.

**3301.9.4.** A license may be renewed each year on presentation of credible documentary proof that the license holder has been actively engaged in blasting operations in the preceding year.

**3301.9.5.** The license application fee and license application renewal fee shall be established by action of the City Council.

**3301.9.6.** No license may be assigned or transferred.

**3301.9.7.** After taking the Class "S" examination, a person holding a current Class "B" license may convert it to a Class "S" license at any time without payment of fee. A Class "B" license holder may convert to a Class "S" license at renewal time. The fee for this conversion will be the set Class "S" renewal fee.

**3301.9.8.** If an applicant for a blasting license fails to pass the examination, the applicant is not eligible for re-examination for a period of 30 days. If an applicant fails to pass the examination at any subsequent time, the applicant is not eligible for another examination for a period of six months following the failure. Another license application fee must be paid for each test after the third test administered.

**3301.9.9.** A Class "C" license holder may not be named on a blasting permit as the responsible blaster except on a permit for blasting operations involving uninhabited areas.

An uninhabited area is a point without a person, animal, structure, or road within a distance of 500 feet.

**3301.9.10.** A Class "S" license holder is restricted to blasting operations involving swimming pools and septic systems.

**3301.9.11.** Class "B" and Class "C" license holders are restricted from blasting operations involving swimming pools and septic systems unless a Class "S" release is attached to their license. To obtain a Class "S" release, a Class "B" or Class "C" license holder must pass the Class "S" blaster's examination.

**3301.9.12.** All work performed by persons licensed under this article must be done in strict compliance with all federal and state laws and City of Austin ordinances. Violation of any law or ordinance will be cause for the Chief to revoke or suspend a license granted under this article. Whenever the Chief believes that any grounds for revocation or suspension of a license exist, he shall give written notice to the holder of the license. The Chief will hold a hearing at which the license holder may appear either personally or by representative and present evidence and make statements. If the Chief's decision is to revoke or suspend the license, the holder may appeal in accordance with Section 103.1.4 of this Code.

**3301.9.13.** The Chief may stop blasting operations in the interest of public health or safety. In addition, the Chief may seize, take, remove or cause to be removed at the expense of the owner, explosive materials offered or exposed for sale, stored, possessed, used, or transported in violation of this code.

### **3301.10 Blaster classifications and requirements therefor.**

#### **3301.10.1. General requirements for all license classes. Applicant must:**

1. Be at least 21 years of age;
2. Be in adequate physical and mental condition to perform the work required;
3. Achieve a passing score on a test appropriate to the license class desired;
4. Be able to understand and give written and oral directions in the English language;
5. Not have been convicted of a felony or two or more misdemeanors within two years preceding the date of application for license, for a crime involving intoxication. Intoxication is defined as not having normal use of mental or physical faculties by reason of the introduction of alcohol, a controlled substance, a drug, or a combination of two or more of those substances into the body (V.A.T.S. art. 6252-13c and art. 6252-13d apply);
6. Have a working knowledge of federal, state, and local laws and regulations pertaining to explosive materials;

7. Have no revoked, suspended, or terminated blaster's license, or any criminal action involving blasting activities pending in a federal, state, or municipal court of law; and,
8. Pay the license application fee in accordance with the schedule established by the City Council.

**3301.10.2.** In addition to the General Requirements, the applicant must satisfy the following requirements for the class license indicated:

**3301.10.1. Class "A."**

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

**3301.10.2.2. Class "B."** Has held a Class "C" blasters license from the City of Austin for at least the preceding two years or has at least four years of experience in the field of transporting, storing, handling, and using explosive materials within the preceding eight years, and submits credible documentary proof of the experience, including references.

**3301.10.2.3. Class "C."** Has at least two years of experience in the field of transporting, storing, handling, and using explosive materials within the preceding four years, and submits credible documentary proof of the experience, including references.

**3301.10.2.4. Class "S."** Has held a Class "B" blasters license from the City of Austin for at least the preceding two years or has at least four years of experience in the field of transporting, storing, handling, and using explosive materials within the preceding eight years, and submits credible documentary proof of the experience, including references.

**3307.4.1** Written approval is required for blasting to be conducted on Sunday, legal holidays, or between the hours of 5:00 p.m. and 8:00 a.m. on other days.

**3307.5 Notification.** All blasting operations must be preceded by a preblast notification to the owners or managers of all affected premises. The range of the preblast notification shall be at the discretion of the blaster or as required by the permit. Whenever blasting is being conducted in the vicinity of utility lines or rights-of-way, the blaster shall notify the

appropriate representatives of the utilities at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notices shall be confirmed with written notice.

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

**3307.11.1** Approved blasting machines must be used. All other equipment is prohibited.

**3307.12.1** Only blasting trunk wire of 18 gauge minimum may be used while conducting blasting operations under permits.

**3307.16** All exposed blasting cap lead wires in the ground from previous work shall be removed at the end of the work day.

**3307.17** Particle velocities may not exceed the safe levels indicated in Table 3307-A and in no case shall particle velocities exceed 1.7 inches per second.

Monitoring of particle velocities for all blasting operations shall be carried out as required in this section. When particle velocities exceed 0.5 inches per second, blast frequencies shall also be monitored. Air over pressures shall not exceed the values of Table 3307-B. Particle velocities, frequencies, or air overpressure in excess of the prescribed limits named in this section shall require the immediate suspension of blasting and initiation of corrective measures. The Chief may grant or require deviations from these limits as required to adequately protect the public safety.

**TABLE 3307-A**

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

**TABLE 3307-B**

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

**3307.18** A blast monitor, such as a seismic blast recording machine, is required during all blasting operations for which a permit is issued by the City of Austin. Particle velocity shall be recorded in three mutually perpendicular axes. The maximum particle velocity shall be the maximum of any of the three axes. Blast monitoring shall be performed by an independent company, experienced in planning and implementing blast monitoring programs. The blast monitoring company shall prepare monitoring plans and shall be responsible for ensuring that the monitor sensors are placed properly and that the measuring and recording instruments function properly. The monitoring company shall prepare blast monitoring reports. All monitoring reports shall carry the seal of an engineer licensed in the State of Texas and shall be retained on file by the permit holder. These reports shall be available to the City on request.

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

**3307.19.** Detonating cord may be used only when approved on the blasting permit. Unauthorized use of detonating cord will result in revocation of the blasting permit and the blaster's license.

**3307.20.** The Chief shall set other conditions for the approval of the application that are necessary to adequately protect public health and safety. These conditions may include, but are not limited to, the required class of license for the responsible blaster, reduced allowable particle velocities, reduced allowable air overpressure, additional monitoring, increased insurance protection, hours of operation, type and amount of explosives used, and engineered blasting plans.

**3308.2.3. Permit.** The fee for this permit shall be as established by the City Council.

**3403.4 Spill control, drainage control, and secondary containment.**

**3403.4.1 General.** Tanks, buildings, rooms, and areas used for storage, dispensing, use, mixing, or handling of Class I, II, and III-A liquids shall be provided with a means to

control spillage and to contain or drain spillage and fire protection water as set forth in Section 2704.2.

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

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

**3403.4.2 Spill control.** When spill control is required, floors of rooms, buildings or areas containing flammable or combustible liquids must be sloped; constructed with sumps and collection systems; recessed a minimum of 4 inches (101.6 mm); provided with a liquid-tight, raised sill to a minimum height of 4 inches (101.6 mm) to prevent the flow of liquids to adjoining areas; or otherwise constructed to contain a spill from the largest single container or tank. The floor and sill must be constructed of noncombustible material and must be liquid-tight. The liquid-tight seal must be compatible with the material being stored. When raised sills are provided, they are not required at perimeter openings that are provided with an open-grate trench across the opening that connects to an approved drainage control system.

#### **3403.4.3 Drainage control.**

**3403.4.3.1 General.** When drainage control is required, rooms, buildings or areas must be provided with a drainage system to direct the flow of liquids to an approved location or treatment system, or be provided with secondary containment for the flammable and combustible liquids and fire protection water.

**3403.4.3.2 Sizing.** Drains shall be sized to carry the sprinkler system design flow rate over the sprinkler system design area. The slope of drains may not be less than 1 percent. The drains must be liquid-tight. Materials used to construct drainage systems must be compatible with the stored materials.

**3403.4.3.3 Incompatible materials.** Incompatible materials must be separated from each other in drainage systems.

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

**3403.4.3.4 Neutralizers and treatment systems.** Drainage systems for spillage and fire-protection water which are directed to a neutralizer or treatment system shall comply with the following:

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

**3403.4.4 Secondary containment.** When secondary containment is required:

1. Drains must be directed to a containment system or other location designed as secondary containment for flammable or combustible liquids and fire-protection water; or
2. The room, building or area must be designed to provide secondary containment of flammable and combustible liquids and fire-protection water through the use of recessed floors or liquid-tight, raised sills.

**3403.4.4.1 Sizing of indoor containment.** Secondary containment must be designed to retain the spill from the largest single container plus the design flow rate of the sprinkler system for the area of the room or area in which the storage is located or the sprinkler system design area, whichever is smaller. The containment capacity must be capable of containing the water flow from a discharge having a duration of 20 minutes.

**3403.4.4.2 Sizing of outdoor containment.** If the storage area is open to rainfall, the secondary containment shall be designed to accommodate the volume of the largest container or tank plus a 24-hour rainfall as determined by a 25-year storm.

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

**3403.4.4.3 Construction of secondary containment.** The floor and walls of the secondary containment must be constructed of noncombustible material and must be liquid-tight. The liquid-tight seal must be compatible with the material being stored. In addition to these requirements, walls must be constructed in accordance with Section 7902.2.8.3.

**3403.4.4.4 Overflow.** Overflow control from the secondary containment system must direct liquid leakage and fire-protection water to a safe location away from buildings, material or fire-protection control valves, means of egress, fire apparatus access roadways, adjoining properties, storm drains, waterways, and critical environmental features (CEFs). Tanks shall be set back at least 150 feet from any recognized waterway or CEF.



#### **3403.4.4.5 Monitoring and leak detection.**

**3403.4.4.5.1 Method.** A monitoring method capable of detecting hazardous material leakage from the primary containment into the secondary containment must be provided. When visual inspection of the primary containment is not practical, other approved means of monitoring are allowed. When double walled tanks are used to provide secondary containment for Class I and II liquids, automatic leak detection devices must be provided. When secondary containment is subject to the intrusion of water, a monitoring method for detecting the water must be provided. When monitoring devices are provided, they must be connected to distinct visual or audible alarms.

**3403.4.4.5.2 Testing.** Leak-detecting devices shall be tested annually by the owner or occupant of the property on which they were located. Test results shall be maintained on the premises and available to the chief on request.

**3404.2.9.5.1 Locations where above-ground tanks are prohibited.** Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited outside of a major industry (MI) district.

#### **Exceptions:**

1. The storage of up to 12,000 gallons of Class I and II liquids within the limits defined as Light Industrial is allowable provided the tank is listed, labeled, and installed in accordance with its listing. The tank shall be constructed to provide a two-hour fire resistance and the tank product shall be a noncorrosive, nonreactive liquid having a specific gravity equal to or less than 1.
2. The storage of up to 1,100 gallons of Class I and II liquids at construction sites is allowed provided the tank is listed, labeled, and installed in accordance with its listing.
3. The placement of aboveground storage tanks at other locations or of greater capacity may be considered on a case-by-case basis provided zoning issues, secondary containment, and fire exposures are satisfactorily addressed including compliance with Appendix II-F. The placement of aboveground containers of Class I and II liquids in aggregate quantities exceeding 12,000 gallon water capacity may be permitted by the Chief only after a public hearing to assess the potential effect on the community. Notice of the hearing must be accomplished in accordance with the established procedures outlined in the Land Development Code for notice of applications and administrative actions or decisions.

**3404.2.10 Drainage control and diking.** The area surrounding a tank or group of tanks shall be provided with drainage control or shall be diked to prevent accidental discharge

of liquid from endangering adjacent tanks, adjoining property, reaching waterways, or CEF's.

**Exceptions:**

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

**3404.2.10.1 Volumetric capacity.** The volumetric capacity of the diked area shall not be less than the greatest amount of liquid that can be released from the largest tank within the diked area plus a 24-hour rainfall as determined by a 25-year storm. The capacity of the diked area enclosing more than one tank shall be calculated by deducting the volume of the tanks other than the largest tank below the height of the dike.

**3404.2.11.2 Location.** Flammable and combustible liquid storage tanks located underground, either outside or under buildings, shall be in accordance with all of the following:

1. Tanks shall be located with respect to existing foundations and supports such that the loads carried by the latter cannot be transmitted to the tank.
2. The distance from any part of a tank storing liquids to the nearest wall of a basement, pit, cellar, or lot line shall not be less than 3 feet (914 mm).
3. A minimum distance of 2 feet (610 mm), shell to shell, shall be maintained between underground tanks.

**3404.2.11.3 Depth and cover.** Excavation for underground storage tanks shall be made with due care to avoid undermining of foundations of existing structures. Underground tanks shall be set on firm foundations and surrounded with at least 6 inches (152 mm) of noncorrosive inert material, such as clean sand or gravel well tamped in place or in accordance with the manufacturer's installation instructions. Tanks shall be covered with a minimum of 2 feet (610 mm) of earth or shall be covered by not less than 1 foot (305 mm) of earth, on top of which shall be placed a slab of reinforced concrete not less than 4 inches (102 mm) thick.

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

For tanks built in accordance with Section 3404.2.7, the burial depth and the height of the vent line shall be such that the static head imposed at the bottom of the tank will not exceed 10 psig (68.9 kPa) if the fill or vent pipe is filled with liquid.

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

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

**3703.2.7 Fire-extinguishing systems.** Exterior storage of highly toxic solids and liquids shall be in noncombustible containers or shall comply with one of the following:

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

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

**3801.1 Scope.** Storage, handling and transportation of LP-gas and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Existing conditions shall be handled in accordance with Section 102 of this Code. Properties of LP-gases shall be determined in accordance with Appendix B of NFPA 58.

**3801.2 Permits and plans.** The requirements in this Chapter for permits to store or use hazardous materials within the City of Austin are applicable to a permit to store, use, handle, or dispense LP-gas, or to install or maintain an LP-gas container.

As noted in Section 105.6.21.6 of these amendments, a permit is not required for non-commercial use at a single family residence. However, the information concerning

location and exposures, as outlined in the Fire Protection Criteria Manual, shall be provided to the Fire Department by the owner of the residence.

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

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

**3804.2. Maximum capacity within established limits.** The storage of LP-gas in aggregate quantities greater than 2000 gallons (7571 L) water capacity is not permitted within the city. The storage of LP-gas in aboveground or below ground containers, greater than 24 gallons (91 L) water capacity and up to a maximum of 2000 gallons (7571 L) water capacity, is prohibited outside of Major Industry (MI) or Light Industry (LI) districts. Location of containers within a Light Industry zoning district may be approved by the Chief, subject to zoning and fire exposure concerns being satisfactorily addressed.

**Exceptions:**

1. The Chief may approve the placement of aboveground or below ground containers for single family residential, multi-family residential or commercial occupancies on a case-by-case basis, provided the container and appurtenances are listed and installed in accordance with that listing, and issues such as zoning and fire exposures are satisfactorily addressed. Guidance for evaluating locations for acceptability is published in the Fire Protection Criteria Manual.
2. The Chief may approve the placement of aboveground or below ground containers of LP-gas in aggregate quantities exceeding 2000 gallon water capacity only after a public hearing to assess the potential effect on the community. Notice of the hearing shall be accomplished in accordance with the established procedures outlined in the Land Development Code for notice of applications and administrative actions or decisions, with the exception that notice shall be made to a distance of 1000 feet (304,800 mm).

**4003.1.1.1.2.1** A maximum of 110 pounds (49.9 kg) of solid Class 3 oxidizer is allowed in nonresidential detached storage adjacent to Group R occupancies, when such materials are necessary for maintenance purposes associated with swimming pools. The oxidizers shall be stored in approved containers and in an approved manner.

## CHAPTER 45 REFERENCED STANDARDS

**National Fire Protection Association  
Batterymarch Park  
Quincy, MA 02269**

<b>NFPA</b>		
<b>Standard Reference Number</b>	<b>Title</b>	<b>Referenced In Code Section Number</b>
10—2002	Portable Fire Extinguishers	Table 901.6.1, 906.2, 906.3, Table 906.3(1), Table 906.3(2), 2106.3
11—2002	Low Expansion Foam	904.7, 3404.2.9.1.2
11A—99	Medium- and High-Expansion Foam Systems	904.7, 3404.2.9.1.2
12—00	Carbon Dioxide Extinguishing Systems	Table 901.6.1, 904.8, 904.11
12A—97	Halon 1301 Fire Extinguishing Systems	Table 901.6.1, 904.9
13—2002	Installation of Sprinkler Systems	Table 704.1, 903.3.1.1, 903.3.2, 903.3.5.1.1, 903.3.5.2, 904.11, 907.9, Table 2306.2, 2306.9, 2804.1, 3404.3.7.5.1, 3404.3.8.4
13D—2002	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.	903.3.1.3, 903.3.5.1.1
13R—2002	Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height.	903.1.2, 903.3.1.2, 903.3.5.1.1, 903.3.5.1.2, 903.4
14—2003	Installation of Standpipe, Private Hydrants and Hose Systems	905.2, 905.3.4, 905.4.2, 905.8
15—2001	Water Spray Fixed Systems for Fire Protection	3404.2.9.1.3
16—2003	Installation of Foam-Water Sprinkler and Foam-Water Spray Systems	904.7, 904.11
17—2002	Dry Chemical Extinguishing Systems	Table 901.6.1, 904.6, 904.11
17A—2002	Wet Chemical Extinguishing Systems	Table 901.6.1, 904.5, 904.11
20—2003	Installation of Stationary Pumps for Fire Protection	913.1, 913.2, 913.5.1
22—2003	Water Tanks for Private Fire Protection	508.2.2
24—2002	Installation of Private Fire	508.2.1, 1909.5

Service Mains and their Appurtenances	
25—2002 Inspection, Testing and Maintenance of Water-Based Fire Protection Systems	508.5.3, Table 901.6.1, 904.7.1, 912.6, 913.5, 3403.6.2, 3403.6.2.1, 3404.2.7, 3404.2.7.1 3404.2.7.2, 3404.2.7.3.6, 3404.2.7.4, 3404.2.7.6, 3404.2.7.7, 3404.2.7.8, 3404.2.7.9, 3404.2.9.2, 3404.2.9.3, 3404.2.9.5.1.1, 3404.2.9.5.1.2, 3404.2.9.5.1.3, 3404.2.9.5.1.4, 3404.2.9.5.1.5, 3404.2.9.5.2, 3404.2.9.6.4, 3404.2.10.2, 3404.2.11.4, 3404.2.11.5.2, 3404.2.12.1, 3404.3.1, 3404.3.6, 3404.3.7.2.3, 3404.3.8.4, 3406.8.3
30—2003 Flammable and Combustible Liquids Code	
30A—2003 Code for Motor Fuel-Dispensing Facilities and Repair Garages	2201.4, 2201.5, 2201.6, 2206.6.3, 2210.1 2801.1, 2803.1, 2804.1, Table 2804.3.1, Table 2804.3.2, Table 2804.3.2.2, 2804.4.1, 2804.5.2, 2804.6, Table 2806.2, Table 2806.3, 2806.5, 2806.8, 2807.1, Table 2804.3.2, Table 2804.3.2.2, 2804.4.1, 2804.5.2, 2804.6, Table 2806.2, Table 2806.3
30B—2002 Manufacture and Storage of Aerosol Products	
31—01 Installation of Oil-Burning Equipment	603.1.7, 603.3.1, 603.3.3
32—00 Drycleaning Plants	1201.1, 1207.1, 1207.3
33—2003 Spray Application Using Flammable or Combustible Materials .	1504.1.2
34—2003 Dipping and Coating Processes Using Flammable or Combustible Liquids	1505.3, 1505.6.1
35—99 Manufacture of Organic Coatings	2001.3, 2005.4
40—2001 Storage and Handling of Cellulose Nitrate Motion Picture Film	306.2
50—01 Bulk Oxygen Systems at Consumer Sites	3201.1, 4001.1
50A—99 Gaseous Hydrogen Systems at Consumer Sites	2209.2.1, 3501.1
50B—99 Liquefied Hydrogen Systems at Consumer Sites	2209.2.1, 3201.1
51—2002 Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied	2601.5, 2607.1, 2609.1

51A—01 Acetylene Cylinder Charging Plants	2608.1
52—2002 Compressed Natural Gas (CNG) Vehicular Fuel Systems	3001.1
57—2002 Liquefied Natural Gas (LNG) Vehicular Fuel Systems	3001.1
	3801.1, 3803.1, 3803.2.1, 3803.2.1.2, 3803.2.1.7, 3803.2.2, 3804.1, 3804.3.1, 3804.4, 3806.3, 3807.2, 3808.1, 3808.2, 3809.11.2, 3811.3
58—01 Liquefied Petroleum Gas Code	
59A—01 Production, Storage and Handling of Liquefied Natural Gas (LNG)	3001.1, 3201.1
61—2002 Prevention of Fires and Dust Explosions in Agricultural and Food Products Facilities	Table 1304.1
69—2002 Explosion Prevention Systems	911.1, 911.3, Table 1304.1
	509.1, Table 901.6.1, 903.4.1, 904.3.5, 907.2, 907.2.1, 907.2.1.1, 907.2.10, 907.2.10.4, 907.2.11.2, 907.2.11.3, 907.2.12.2.3, 907.2.12.3, 907.3, 907.5, 907.6, 907.10.2, 907.11, 907.15, 907.17, 907.18, 907.20, 907.20.2, 907.20.5
72—2002 National Fire Alarm Code	703.2, 1008.1.3.3
80—99 Fire Doors and Fire Windows	
85—01 Boiler and Combustion System Hazards Code (Note: NFPA 8503 has been incorporated into NFPA 85)	1304.1
86—2003 Ovens and Furnaces	2101.1
99—2002 Health Care Facilities	3006.4
101—2003 Life Safety Code	1024.6.2
110—2001 Emergency and Standby Power Systems	604.1, 604.4, 913.5.2, 913.5.3
111—01 Stored Electrical Energy Emergency and Standby Power Systems	604.1, 604.4
120—99 Coal Preparation Plants	Table 1304.1
160—01 Flame Effects Before an Audience	308.3.6
211—2003 Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances	603.2
231—98 General Storage replaced by: 13.- 2002 Installation of Sprinkler Systems, and 230- 2003 Standard for the Fire Protection of Storage	2304.2, 2307.2, 2307.2.1, 3404.3.3.9

231C—98 Rack Storage of Materials replaced by:	
13.- 2002 Installation of Sprinkler Systems, and	2301.1, 2304.2, 2308.2, 2308.2.2, 2308.2.2.1, 2308.4, 2310.1, Table 3404.3.6.3(7), 3404.3.7.5.1, 3404.3.8.4
230- 2003 Standard for the Fire Protection of Storage	
231D—98 Storage of Rubber Tires replaced by:	
13.- 2002 Installation of Sprinkler Systems, and	
230- 2003 Standard for the Fire Protection of Storage	2501.1
241—00 Safeguarding Construction, Alteration, and Demolition Operations.	1401.1
260—2003 Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture	803.6.1, 803.7.1
261—2003 Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes	803.5.1
265—2002 Standard Method of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Wall Coverings	.2.3, 806.2.3.1, 806.2.3.2
266—98 Method of Test for Fire Characteristics of Upholstered Furniture Exposed to Flaming Ignition Source	803.5.2
267—98 Method of Test for Fire Characteristics of Mattresses and Bedding Assemblies Exposed to Flaming Ignition Source	803.5.3, 803.6.3, 803.7.4
286—00 Standard Method of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth	806.2.1, 806.2.1.1, 806.3
385—00 Tank Vehicles for Flammable and Combustible Liquids	3406.5.4.5, 3406.6, 3406.6.1
407—2001 Aircraft Fuel Servicing	1106.2, 1106.3
430—2000 Storage of Liquid and Solid Oxidizers	4004.1.4
480—98 Storage, Handling, and	Table 1304.1



Processing of Magnesium Solids and Powders - all references apply to NFPA 484-2002 Standard for Combustible Metals, Metal Powders, and Metal Dusts	Table 1304.1
481—00 Production, Processing, Handling and Storage of Titanium - all references apply to NFPA 484-2002 Standard for Combustible Metals, Metal Powders, and Metal Dusts	Table 1304.1
482—96 Production, Processing, Handling and Storage of Zirconium - all references apply to NFPA 484-2002 Standard for Combustible Metals, Metal Powders, and Metal Dusts	Table 1304.1
490—2002 Storage of Ammonium Nitrate	3301.1.5
	911.1, 911.4, 3301.1.1, 3301.1.5, 3302.1, 3304.2, 3304.6.2, 3304.6.3, 3304.7.1, 3305.1, 3306.1, 3306.5.2.1, 3306.5.2.3, 3307.1, 3307.9, 3307.11, 3307.15
495—2001 Explosive Materials Code	
498—2001 Safe Havens and Interchange Lots for Vehicles Transporting Explosives	3301.1.2
505—2002 Powered Industrial Trucks, Including Type Designations, Areas of Use, Maintenance, and Operation	.7.3
650—98 Pneumatic Conveying Systems for Handling Combustible Particulate Solids	Table 1304.1
651—98 Machining and Finishing of Aluminum and the Production and Handling of Aluminum Powders- all references apply to NFPA 484-2002 Standard for Combustible Metals, Metal Powders, and Metal Dusts	Table 1304.1
654—00 Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids	1304.1
655—2001 Prevention of Sulfur Fires and Explosions	Table 1304.1
664—2002 Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities .	Table 1304.1, 1905.3
701—99 Standard Methods of Fire Tests	803.2.2, 805.1, 805.2, 2402.2

for Flame-Propagation of Textiles and  
Films

703—00 Fire Retardant Impregnated  
Wood and Fire Retardant Coatings for  
Building Materials

806.2.6

606.7, 606.9.3.4, 1802.1, 2703.2.2.1,  
2703.2.2.2, 2703.5, 2703.10.2,  
2705.1.10, 2705.2.1.1, 2705.4.4,  
3203.4.1, 3404.2.3.2

704—2001 Identification of the Hazards  
of Materials for Emergency Response

750—2003 Standard on Water Mist Fire  
Protection Systems

Table 901.6.1

1122—2002 Model Rocketry

3301.1.4

3302.1, 3304.2, 3308.1, 3308.2.2,  
3308.5, 3308.6

1123—00 Fireworks Display

1124—2003 Manufacture, Transportation,  
and Storage of Fireworks and Pyrotechnic  
Articles

3302.1, 3304.2, 3305.1, 3305.3, 3305.4,  
3305.5

1125—2001 Manufacture of Model  
Rocket and High Power Rocket Motors

3301.1.4

1126—01 Use of Pyrotechnics Before a  
Proximate Audience.

3304.2, 3305.1, 3308.1, 3308.2.2,  
3308.4, 3308.5

1127—2002 High Power Rocketry

3301.1.4

2001—00 Clean Agent Fire Extinguishing  
Systems .

Table 901.6.1, 904.10

## Appendix F

### HAZARDOUS MATERIALS INVENTORY DETERMINATION OF DEGREE OF HAZARD

The hazard rating of a material is required to be included in the hazardous materials inventory and shall be determined by evaluating the potential for harm and the relative toxicity of the material or mixture of materials as a whole. NFPA Standard 704, "Standard System for the Identification of the Fire Hazards of Materials" shall be used to the extent possible in identifying degree of hazard and is declared to be part of this Code as if set forth in full in this section. MSDS's, published data (Irving Sax, etc.), or Appendix E shall be used when NFPA 704-2001 does not apply or provides insufficient guidance, e.g. oxidizers. See also Sections 105.6.21 and 2701.2.

**PART 2.** This ordinance takes effect on December 31, 2005, at 11:59 p.m.

#### PASSED AND APPROVED

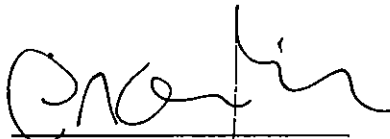
December 15, 2005

§  
§  
§



Will Wynn  
Mayor

APPROVED:



David Allan Smith  
City Attorney

ATTEST:



Shirley A. Gentry  
City Clerk