

**CHAPTER 56
EXPLOSIVES AND FIREWORKS**

SECTIONS 5601.2.4.2, 5603.3, Table 5604.5.2(3), 5608.3, and 5609.1 are amended to read as follows and **Sections 5609.2 – 5609.5** have been added to read as follows:

5601.2.4.2 Fireworks display. The permit holder shall furnish a bond or certificate of insurance in an amount deemed adequate by the *fire code official* for the payment of all potential damages to a person or persons or to property by reason of the permitted display, and arising from any acts of the permit holder, the agent, employees or subcontractors. In accordance with the Texas Occupation Code, the applicant for any display shall submit evidence of a general liability insurance policy in the amount of \$1 million.

5603.3 Loss, theft or unauthorized removal. The loss, theft or unauthorized removal of *explosive materials* from a magazine or permitted facility shall be reported to the *fire code official*, local law enforcement authorities and the U.S. Department of Treasury, Bureau of Alcohol, Tobacco, Firearms and Explosives within 24 hours.

Exception: Loss of Division 1.4G (consumer fireworks) need not be reported to the Bureau of Alcohol, Tobacco, Firearms and Explosives but shall be reported to the fire code official.

**TABLE 5604.5.2(3)
TABLE OF DISTANCES (Q-D) FOR BUILDINGS AND MAGAZINES CONTAINING EXPLOSIVES—DIVISION
1.4^c**

QUANTITY OF DIVISION 1.4 EXPLOSIVES (NET EXPLOSIVES WEIGHT)		DISTANCES IN FEET			
Pounds over	Pounds not over	Inhabited Building Distance (IBD)	Distance to Public Traffic Route (PTR)	Intermagazine Distance ^{a, b} (IMD)	Intraline Distance (ILD) or Intraplant Distance ^a (IPD)
50	Not Limited	50	50	50	50

For SI: 1 foot = 304.8 mm, 1 pound = 0.454 kg.

a. A separation distance of 100 feet is required for buildings of other than Type I or Type II construction as defined in the *International Building Code*.

b. For earth-covered magazines, specific separation is not required.

1. Earth cover material used for magazines shall be relatively cohesive. Solid or wet clay and similar types of soil are too cohesive and shall not be used. Soil shall be free from unsanitary organic matter, trash, debris and stones heavier than 10 pounds or larger than 6 inches in diameter. Compaction and surface preparation shall be provided, as necessary, to maintain structural integrity and avoid erosion. Where cohesive material cannot be used, as in sandy soil, the earth cover over magazines shall be finished with a suitable material to ensure structural integrity.

2. The earth fill or earth cover between earth-covered magazines shall be either solid or sloped, in accordance with the requirements of other construction features, but not less than 2 feet of earth cover shall be maintained over the top of each magazines. To reduce erosion and facilitate maintenance operations, the cover shall have a slope of 2 horizontal to 1 vertical.

c. Restricted to articles, including articles packaged for shipment, that are not regulated as an explosive under Bureau of Alcohol, Tobacco, Firearms and Explosives regulations, or unpacked articles used in process operations that do not propagate a detonation or deflagration between articles.

5604.5.2.3 Fireworks 1.4G. Where magazines containing 1.4g fireworks cannot meet the 50' separation intermagazine distance, only 2 magazines will be allowed on same property.

5608.3 Approved fireworks displays. *Approved* fireworks displays shall include only the *approved* fireworks 1.3G, fireworks 1.4G, fireworks 1.4S and pyrotechnic articles 1.4G, which shall be handled by an *approved*, competent operator licensed by the State of Texas. The *approved* fireworks shall be arranged, located, discharged and fired in a manner that will not pose a hazard to property or endanger any person.

5609.1 General. The sale, storage, and display of Fireworks 1.4G is subject to the authority of the fire code official, including the authority to inspect, determine the presence of fire hazards.

5609.1.1 Applicability. This Section 5609 provides standards for the design and construction of buildings in which Fireworks 1.4G are to be stored, sold, or displayed. Such design and construction shall comply with this section and the Texas Fireworks Rules, current edition, as promulgated by the Texas State County Fire Marshal.

5609.1.2 Compliance with Fire Code. All structures used for the storage or sale of consumer fireworks 1.4G shall comply with the applicable provisions of the Harris County Fire Code for new structures, and with applicable sections of this sub-section.

5609.1.3 Fire Code Permit and Inspections. Any structure that is erected, occupied, or moved into or within the jurisdiction is considered new construction and requires a Fire Code permit and an inspection to ensure compliance with the adopted code.

5609.2 Definitions.

5609.2.1 Temporary Structure. Any structure that is erected, occupied, or moved into or within the jurisdiction, for a period of less than 180 days.

5609.2.2 Permanent Structure. Any structure that is erected, or moved into or within the jurisdiction, for a period of more than 180 days.

5609.2.3 Fireworks Control Area. Spaces within a building where quantities of fireworks 1.4G, not exceeding the maximum allowable quantities, are stored, dispensed, used or handled.

5609.3 Conflict between provisions. If there is a conflict between the provisions of this section and the Fireworks Rules, the more stringent of the provisions shall apply.

5609.3.1 Limit of authority. This section does not limit the authority of the County Fire Marshal to inspect any retail site location or storage facility to require additional fire protection measures.

5609.4 Requirements for all retail sales, displays, and storage sites and facilities. All Fireworks 1.4G retail sales sites, storage buildings, and control areas, including temporary storage facilities such as trailers, semi-trailers, or metal shipping containers must conform to the minimum standards of this section.

5609.4.1 Physical Address and Emergency Contact. All retail sales sites and storage facilities must have the physical address and a 24-hour emergency contact number prominently posted on the outside of each site, close to the main entrance, in numbers at least 4 inches in height and ½ inch

stroke in width on a contrasting background, and visible from the street or road fronting the property.

5609.4.2 Residential Storage. Fireworks 1.4G retail storage buildings shall not be used for residential occupancies. Use of a residential building for the storage of fireworks in excess of 125 pounds of pyrotechnic material shall be considered a change in occupancy.

5609.4.3 Maximum allowable quantity. No more than 125 pounds of pyrotechnic material may be stored and/or displayed in any control area. In the absence of documentation approved by the fire code official, 25 percent of the gross weight of the fireworks, including all packaging, will be used to determine the 125 pound limitation.

Exception:

1. The maximum allowable quantities can be increased 100 percent if the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.
2. The maximum allowable quantities may be greater than allowed by this section, subject to approval by the County Fire Marshal, if the building meets all requirements for a Group H-3 occupancy and Section 5609.4.

The aggregate quantity in use and storage shall not exceed the quantity listed for storage in the Application for Permit.

5609.4.4 Minimum separation distances. Except as specified elsewhere in this section, structures shall be located in accordance with the requirements of Table 5609.2.1.5.

Exceptions:

1. Trailers, semi-trailers, and metal containers used for storage only must be separated by at least 50 ft. from any building or structure other than other trailers, semitrailers, or metal shipping containers. There is no minimum distance between multiple trailers or semi-trailers when used for storage only.
2. Permanent facilities permitted before January 1, 2019 may be separated from adjacent buildings by less than 20 ft. if they are separated by a wall with a 1-hour fire resistance rating, provided existing facilities are not enlarged or expanded.
3. Where multiple firework retail stands are on a single property, separation shall be no less than 10 ft. Firework retail stands can be joined together with no separation if stands do not exceed 70 ft. in length.

Table 5609.4.1 Minimum Separation Distances of Fireworks 1.4G Retail Sales Buildings, including Trailers, Semi-trailers, and Metal Shipping Containers

Type of Structure	Minimum Distance
From other trailers or semi-trailers	0 ft.
From Vehicles	10 ft.
From other buildings	20 ft.
From Combustibles	30 ft.
From cooking equipment of any type, or any open flame equipment	50 ft.
Motor Vehicle fuel-dispensing station dispensers or Retail propane-dispensing station dispenser	100 ft.

5609.4.5 Electrical Work. Electrical work performed must be installed in accordance with the National Electrical Code.

5609.4.5.1 Required Listing. All electrical equipment, battery-powered equipment, and electrical cords shall be listed and shall be used in accordance with their listing.

5609.4.5.2 Temporary Power. The fire code official is authorized to give permission to temporarily supply and use power for up to 180 days. All temporary conductors shall comply with the National Electrical Code.

5609.4.5.3 Light fixture guards. All incandescent light fixtures within 25 ft. of any consumer fireworks shall have metal or plastic guards. All fluorescent light fixtures within 25 ft. of any consumer fireworks shall have plastic tube guards with caps or metal guards or plastic lens covers.

5609.4.5.4 Portable generators. Portable generators supplying power to consumer fireworks retail sales facilities shall comply with this section.

5609.4.5.4.1 Location distance. Portable generators shall be located not less than 10 ft. from the consumer fireworks retail sales facility and in an area free from grass, trash, and other combustible flammable materials.

5609.4.5.4.2 Surplus fuel. Generator fuel shall be stored in an approved safety container at least 10 ft. from the consumer fireworks retail sales facility. Fuel quantity shall be limited to not more than 10 gal.

5609.4.5.4.3 Extinguisher. For all generators a minimum 6 B.C. fire extinguisher shall be provided within 75 feet travel distance from generator location.

5609.4.6 Means of Egress. Means of egress including, but not limited to aisles, doors, and exit discharge, shall be clear at all times when the facility or the building is occupied.

5609.4.6.1 Number of exits. Each retail fireworks stand less than 16 feet in length shall have at least one walk door which opens outward, in a location approved by the fire code

official. Stands measuring 16 feet or longer must have at least two walk doors which open outward, in locations approved by the fire code official.

5609.4.6.2 Maximum travel distance. Exits provided for all fireworks retail sales stands shall be arranged so that the maximum egress travel distance does not exceed 35 ft.

5609.4.6.3 Exit door requirements. The minimum dimensions of any walk door are 28 inches wide X 72 inches high. Walk doors must not be locked from the outside when the stand is occupied, and must be immediately accessible from the inside.

5609.4.6.4 Minimum aisle width. A minimum distance of six feet shall be maintained from the front of the customer counter to the back side of the stand. The minimum clear exit aisle width is 28 inches.

5609.4.7 Fire Protection. All Fireworks 1.4G retail stands must comply with this section.

5609.4.7.1 Smoke detectors. Each stand will have an operational smoke detector in each sales area. If sleeping or rest areas are provided in the stand, there must be one smoke detector in each sales area and one in each sleeping or rest area.

5609.4.7.2 Cooking equipment. Cooking equipment of any type, or any open-flame equipment, shall not be permitted within 50 ft. of all stands, trailers, or shipping containers used for the storage or sale of consumer fireworks.

5609.4.7.3 Retail stand fireworks control areas. In Fireworks 1.4G retail stands, a flame break approved by the fire code official, may be installed every 8-10 feet to establish retail stand fireworks control areas. No more than 125 lbs. of pyrotechnic material may be stored and/or displayed in any retail stand fireworks control area.

5609.4.7.4 Approved flame break. An approved flame break, of not less than 3/4 inch plywood, shall be used to separate retail stand fireworks control areas. Separation shall begin at the back wall and extend to the furthest shelf point, and from the floor to the underside of roof. Fire caulking shall be applied at all penetrations and adjoining points along the 3/4 inch plywood separation.

5609.5 Specific requirements for retail fireworks sites other than stands. All indoor retail fireworks sites and storage facilities, other than stands, shall comply with the requirements of this section.

5609.5.1 Building Design. The retail fireworks sales building shall be a free standing, durable structure with no basement, and only one story of space accessible to the public.

5609.5.2 Multi-use building prohibited. The fireworks sales area shall not be part of a multi-use or multi-tenant building, except that office areas and restrooms ancillary to the building are allowed if:

1. Offices and related spaces are separated from fireworks storage or sales areas by fire barriers having a fire resistance rating of not less than 1 hour; and

2. Window openings in the fire barrier wall are protected by self-closing fire doors or fixed fire windows having a fire protection rating of not less than 3/4 hour, and installed in accordance with NFPA 80, Standard for Fire Doors and Fire Windows.

5609.5.3 Assembly and educational occupancies prohibited. Assembly or educational occupancies cannot be used for the storage or sale of fireworks 1.4G.

5609.5.4 Application, Plans, Approval, Permits. All newly constructed firework retail sites other than stands shall comply with the adopted Harris County Fire Code Regulation and all processes shall be followed for plan submittal, approval, permitting, and inspection.

5609.5.5 Emergency response plan. The operator of each indoor retail sales site or storage facility shall prepare a written emergency response plan in accordance with Chapter 4 of this Code. The evacuation plan shall be posted in a conspicuous location that is accessible to the public as well as to persons employed or otherwise working in the facility.

5609.5.6 Maximum occupant load. The approved maximum occupant load shall be conspicuously posted near the main entrance using a format approved by the fire code official. Records of occupant load will be maintained onsite and available for inspection by the fire code official.

5609.5.7 Means of Egress. All means of egress in consumer fireworks retail sales facilities, other than stands, shall comply with the applicable requirements of this section.

5609.5.7.1 Minimum number of exits. The minimum number of exits provided from the retail sales area shall be not less than three, or more as determined in accordance with this Code.

5609.5.7.2 Maximum travel distance. Exits provided for the retail sales area of consumer fireworks retail sales facilities, other than stands, shall be located so that the maximum egress travel distance, measured from the most remote point to an exit along the natural and unobstructed path of egress travel, does not exceed 75 ft.

5609.7.3 Minimum aisle width. Aisles shall have a minimum clear width of 48 inches. Aisles and exit doors shall be kept free of any obstruction.

5609.7.4 Minimum exit door width. The minimum egress door width shall be not less than 36 inches in width and will provide a minimum clear opening width of 32 inches.

5609.7.5 Egress door swing. Unless approved by the County Fire Marshal, all egress doors shall be of the side-hinge swinging type and shall be arranged to swing in the direction of egress travel.

5609.7.6 Panic Hardware. Every egress door that has a latching device shall be provided with

approved panic hardware.

5609.7.7 Roll-up, or lift doors. Roll-up or lift doors may be used as egress doors when there is a readily distinguishable device that secures each door in the open position whenever the building is occupied.

5609.5.8 Sales area design. Fireworks sales display areas shall be sufficiently designed to prevent customers from handling fireworks, unless an attendant is directly assisting the customer.

5609.5.8.1 Visual Supervision. The sales area shall be designed and constructed so that fireworks shall be under the visual supervision of a store employee or other responsible party while the store is open to the public.

5609.5.8.2 Height counter and displays. Partitions, counters, shelving, cases, displays, product and similar sales areas shall not exceed 6 ft. in height above the floor surface inside the perimeter of the retail sales area.

5609.5.8.3 Height perimeter. Where located along the perimeter of the retail sales area, the maximum height of sales displays, shelving, and product shall be limited to 12 ft.

5609.5.9 Fire protection.

5609.5.9.1 Fire Extinguishers. Portable fire extinguishers shall be specified as required for extra (high) hazard occupancy in accordance with NFPA 10, Standard for Portable Fire Extinguishers.

5609.5.9.1.1 Number and Placement. Every indoor retail sales building shall have not less than two portable fire extinguishers with a minimum 2A rating. At least one approved Class A fire extinguisher shall be provided for each 1,000 square feet of floor space, not to exceed 75 ft. travel distance.

5609.5.9.2 Fire alarm system. A fire alarm system, installed in accordance with NFPA 72, shall be required in all consumer fireworks retail sales facilities. Facilities less than 3,000 sq. ft. in area AND in existence and continuously permitted before January 1, 2005 are exempt from compliance, provided such facilities are not enlarged or expanded beyond their January 1, 2005 operation.

5609.5.9.3 Automatic fire sprinklers. An automatic sprinkler system shall be required in all consumer fireworks retail sales facilities. Facilities less than 6,000 sq. ft. in area AND in existence and continuously permitted before January 1, 2005 are exempt from compliance, provided such facilities are not enlarged or expanded beyond their January 1, 2005 operation.

5609.5.9.4 Smoke Control. All sites must have a minimum average ceiling height of 12 ft. Smoke and heat vents designed and installed in accordance with NFPA 204, Standard for Smoke and Heat Venting shall be provided in consumer fireworks storage buildings. Facilities less than 50,000 sq. ft. in area AND in existence and continuously permitted

before January 1, 2005 are exempt from compliance, provided such facilities are not enlarged or expanded beyond their January 1, 2005 operation.

5609.5.10 Other codes, standards, and laws. Unless specifically outlined in this chapter, all retail fireworks sites shall comply with the other applicable chapters of this code, the Texas Occupations Code 2154, Texas Local Government Code 352, and the Texas Fireworks Rules.