

6.9 Exit Signs and Emergency Lighting.**6.9.1 Exit Signs.**

6.9.1.1 Exits in consumer fireworks storage or work buildings or areas shall be marked by an approved exit sign in accordance with NFPA 101, *Life Safety Code*.

6.9.1.2 Exit signs shall be required to be self-luminous or internally or externally illuminated.

6.9.2 Emergency Lighting.

6.9.2.1 The means of egress, including the exit discharge, shall be illuminated whenever the facility is occupied in accordance with NFPA 101, *Life Safety Code*.

6.9.2.2 Emergency lighting shall be provided for consumer fireworks storage or work buildings or areas and shall comply with NFPA 101, *Life Safety Code*.

6.10* Electrical Requirements. Electrical fixtures and wiring shall comply with NFPA 70, *National Electrical Code*.

6.11 Operations.

6.11.1 Receiving, storing, picking from cartons, packing into cartons, packaging into retail packages including assortments, shipping, and other similar operations involving finished consumer fireworks shall be permitted in consumer fireworks storage or work buildings, rooms, or areas that meet the requirements of this chapter.

6.11.2 Picking, sorting, packaging, packing, and other similar operations involving finished consumer fireworks shall be conducted in consumer fireworks work buildings or consumer fireworks work rooms or areas in consumer fireworks storage buildings that meet the requirements of this chapter.

6.11.3 Exterior doors and windows shall be kept locked when the building is not occupied or otherwise attended.

6.11.4* Consumer fireworks shall be stored in accordance with NFPA 230, *Standard for the Fire Protection of Storage*, and as follows:

- (1) Consumer fireworks shall be stored in DOT-approved packaging. (See 3.3.25.)
- (2) Cartons shall be stacked neatly and in a stable manner.
- (3) Consumer fireworks returned to these buildings shall be permitted to be stored temporarily in cartons until repackaging or repacking can be performed.

6.11.5 Firearms, unless carried by authorized personnel or law enforcement personnel, shall not be permitted inside a consumer fireworks storage or work building, room, or area or within 50 ft (15.2 m) of stored consumer fireworks.

6.11.5.1 Smoking.

6.11.5.1.1 Smoking materials, matches, lighters, or open flame devices shall not be allowed within 50 ft (15.2 m) of any area where fireworks or other pyrotechnic materials are present.

6.11.5.1.2 Authorized smoking locations shall be so marked, shall contain designated receptacles for disposal of smoking materials, and shall be provided with at least one approved portable fire extinguisher for use on Class A fires.

6.11.5.2 Testing.

6.11.5.2.1 Testing of fireworks, pyrotechnic materials, and pyrotechnic and explosive compositions shall be performed only in a building or area specifically designated for that purpose.

6.11.5.2.2 The testing shall be conducted at a safe distance from other buildings.

6.11.6 Signs that read as follows in letters not less than 4 in. (102 mm) high on a contrasting background shall be conspicuously posted on the outside of any consumer fireworks storage building:

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6.11.7* The operator of each consumer fireworks storage or work building or area shall prepare a written emergency response plan that provides specific directions to be followed in the event of a fire.

6.12 Housekeeping.

6.12.1 No loose Black Powder or other exposed pyrotechnic composition shall be permitted. If loose composition is discovered, it shall be removed immediately and disposed of in an approved manner.

6.12.2 Consumer fireworks storage or work buildings, rooms, or areas shall comply with the following:

- (1) Interiors shall be kept clean, dry, and free of grit and rubbish.
- (2) Tools used for cleaning up loose pyrotechnic composition shall not have spark-producing metal parts.
- (3) Sweepings shall be disposed of in an approved manner.

6.12.3 The area around consumer fireworks storage or work buildings shall be kept clear of brush, dried vegetation, rubbish, and similar combustibles for a distance of at least 25 ft (7.6 m).

6.13 Consumer Fireworks Work Buildings, Rooms, or Areas.

6.13.1 Consumer fireworks work buildings, rooms, or areas shall comply with this section.

6.13.2 The quantity of consumer fireworks being handled outside of DOT-approved packaging shall be limited to that necessary to conduct the operation.

6.13.3 Aisles shall be at least 48 in. (1.2 m) wide and shall be kept free of obstructions that reduce the required width.

6.13.4 Exit doors shall be kept free of obstructions.

6.13.5 Work rooms or areas shall be permitted in consumer fireworks storage buildings.

6.13.5.1 Work rooms or areas in consumer fireworks storage buildings shall be separated from stored consumer fireworks by a fire barrier wall having a fire resistance rating of at least 1 hour or by a separation distance of at least 25 ft (7.6 m).

6.13.5.2 Work rooms or areas in consumer fireworks storage buildings shall have at least two remotely located means of egress, with at least one means of egress not having to pass through a storage area.

6.13.6 Light fixtures within 25 ft (7.6 m) of any consumer fireworks shall have guards.

6.14 Trailers, Semitrailers, and Metal Shipping Containers.

6.14.1 Trailers, semitrailers, or metal shipping containers shall comply with this section.

6.14.2 Trailers, semitrailers, or metal shipping containers that are not normally occupied shall be permitted to be locked during operation.

6.14.3 Where an aisle is provided, the aisle shall be not less than 28 in. (710 mm) in clear width.

6.14.4 At least one pressurized water type fire extinguisher having a minimum rating of 2A shall be located within 75 ft (22.8 m).

6.14.5 Panic hardware on exit doors shall not be required.

6.14.6 Trailers, semitrailers, and metal shipping containers used for consumer fireworks storage shall be permitted to be placed side by side with no minimum separation distance and stacked to a maximum height of two units.

Chapter 7 Retail Sales of Consumer Fireworks

7.1* Applicability.

7.1.1* General Requirements. Retail sales of consumer fireworks in both new and existing buildings, structures, and facilities shall comply with the requirements of this chapter unless otherwise indicated.

7.1.1.1 New Facilities.

7.1.1.1.1 For the purpose of applying the requirements of this chapter, the following consumer fireworks retail sales (CFRS) facilities and stores shall be considered to be new:

- (1) Permanent CFRS facilities and stores that are not initially occupied until after the effective date of this code, unless plans are submitted and accepted for review, plans have been approved for construction, or a building permit has been issued prior to the effective date of this code
- (2) Permanent CFRS facilities and stores constructed prior to the effective date of this code and in which the retail sales of consumer fireworks have not been conducted either seasonally or year-round within one year prior to the effective date of this code
- (3) Temporary CFRS facilities and stores

7.1.1.1.2 In a store where the area of the retail sales floor occupied by the retail displays of consumer fireworks is increased after the effective date of this code, such that the area exceeds the limits specified in 7.5.1.1(1), the building shall be considered to be a new CFRS facility.

7.1.1.2 Existing Facilities. For the purpose of applying the requirements of this chapter, CFRS facilities and stores not considered to be new as specified in 7.1.1.1 shall be considered to be existing.

7.1.1.3 Minimum Requirements. Existing life safety features that do not meet the requirements for new buildings but that exceed the requirements for existing buildings shall not be further diminished.

7.1.1.4 Modernization or Renovation. Any alteration or any installation of new equipment shall meet, as nearly as practicable, the requirements for new construction.

7.1.1.4.1 Only the altered, renovated, or modernized portion of an existing building, system, or individual component shall be required to meet the provisions of this code that are applicable to new construction.

7.1.1.4.2 If the alteration, renovation, or modernization adversely impacts required life safety features, additional upgrading shall be required.

7.1.1.4.3 Except where another provision of this code exempts a previously approved feature from a requirement, the resulting feature shall be not less than that required for existing buildings.

7.1.2 Facility Classification. The requirements of this chapter shall apply to the following:

- (1) Permanent buildings and structures, including the following:
 - (a) Stores
 - (b) CFRS facilities
- (2) Temporary facilities, including the following:
 - (a) CFRS stands
 - (b) Tents
 - (c) Canopies
 - (d) Membrane structures

7.2 Special Limits for Retail Sales of Consumer Fireworks.

7.2.1 Retail sales of consumer fireworks, including their related storage and display for sale of such fireworks, shall be in accordance with this code.

7.2.2* Retail sales of consumer fireworks shall be limited to mercantile occupancies defined in NFPA 101, *Life Safety Code*.

7.2.3 Any building or structure used for the retail sales of consumer fireworks, including their related storage, shall comply with NFPA 101, *Life Safety Code*, for mercantile occupancies, except as provided in this code.

7.2.4 Retail sales of display fireworks and pyrotechnic articles, including the related storage and display for sale of such fireworks and articles, shall be prohibited at a CFRS facility or store.

7.2.5 Retail sales of certain explosive devices prohibited by the *Child Safety Act of 1966*, including the related storage and display for sale of such devices, shall be prohibited at a CFRS facility or store.

7.2.6 The retail sales of pest control devices, including their related storage and display for sale, shall be prohibited at a CFRS facility or store.

7.2.7 The retail sales of fireworks that do not comply with the regulations of the U.S. Consumer Product Safety Commission as set forth in 16 CFR 1500 and 1507 and the regulations of the U.S. Department of Transportation as set forth in 49 CFR 100 to 178, including their related storage and display for sale, shall be prohibited.

7.3 General Requirements for All Retail Sales.

7.3.1 Exempt Amounts.

7.3.1.1 The requirements of this chapter shall not apply to CFRS facilities or stores where the consumer fireworks are in packages and where the total quantity of consumer fireworks on hand does not exceed 125 lb (net) [56.8 kg] of pyrotechnic composition or, in a building protected throughout with an approved automatic sprinkler system installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, 250 lb (net) [113.6 kg] of pyrotechnic composition.

7.3.1.2 Where the actual weight of the pyrotechnic composition of consumer fireworks is not known, 25 percent of the gross weight of the consumer fireworks, including packaging, shall be permitted to be used to determine the weight of the pyrotechnic composition.

7.3.2* Permits. Where required by state or local laws, ordinances, or regulations, a permit for the following shall be obtained:

- (1) Construction, erection, or operation of the following:
 - (a) Permanent building or structure
 - (b) Temporary structure such as a stand, tent, or canopy used for the purpose of the retail display or sale of consumer fireworks to the public
- (2) Storage of consumer fireworks in connection with the retail display or sale of consumer fireworks to the public

7.3.3 Plans. Plans for facilities other than stands and tents shall include the following:

- (1) Minimum distances from the following:
 - (a) Public ways
 - (b) Buildings
 - (c) Other CFRS facilities
 - (d) Motor vehicle fuel-dispensing station dispensers
 - (e) Retail propane-dispensing station dispensers
 - (f) Flammable and combustible liquid aboveground tank storage
 - (g) Flammable gas and flammable liquefied gas bulk aboveground storage and dispensing areas within 300 ft (91.5 m) of the facility used for the retail sales of consumer fireworks
- (2) Vehicle access and parking areas
- (3) Location and type of portable fire extinguishers
- (4) Floor plan and layout of storage and displays to indicate compliance with this chapter and applicable state or local laws, ordinances, or regulations
- (5) Means of egress
- (6) Construction details

7.3.4* Fire Department Access. Any portion of an exterior wall of a building, sidewall of a tent, or other defined perimeter of a CFRS facility or store shall be accessible within 150 ft (45.7 m) of a public way or an approved fire apparatus access.

7.3.5 Construction of Buildings and Structures. Consumer fireworks shall only be permitted to be sold at retail in any of the following buildings or structures, provided that any new building or structure does not exceed one story in height:

- (1) Permanent buildings or structures constructed in accordance with the building code enforced by the AHJ
- (2) Tents, canopies, or temporary membrane structures complying with NFPA 102, *Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures*
- (3) Temporary structures constructed in accordance with this chapter
- (4) Temporary CFRS stands greater than 800 ft² (74 m²) in area that also meet the requirements for a permanent structure
- (5) Vehicles, such as vans, buses, trailers, recreational vehicles, motor homes, travel trailers, trucks, and automobiles, complying with the applicable requirements for CFRS stands

7.3.6 An automatic sprinkler system designed and installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, shall be provided throughout permanent CFRS facilities and stores in which CFRS are conducted in the following buildings:

- (1) New buildings greater than 6000 ft² (557.2 m²) in area
- (2) Existing buildings greater than 7500 ft² (694 m²) in area

7.3.6.1 Door and window openings in the fire barrier wall shall be protected by self-closing fire doors or fixed fire windows having a fire protection rating of not less than 1 hour and shall be installed in accordance with NFPA 80, *Standard for Fire Doors and Fire Windows*.

7.3.6.2 Any other openings or penetrations in the fire barrier wall shall be protected in accordance with NFPA 101, *Life Safety Code*.

7.3.6.3 Every CFRS facility and store shall have no fewer than two portable fire extinguishers with a minimum rating of 2A, at least one of which shall be of the pressurized water type.

7.3.7 Storage Rooms. Storage rooms containing consumer fireworks in a new permanent CFRS facility or store shall be protected with an automatic sprinkler system installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, or separated from the retail sales area by a fire barrier having a fire resistance rating of not less than 1 hour.

7.3.8 Portable Fire Extinguishers.

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

7.3.8.2 Extinguisher Type. Where more than one portable fire extinguisher is required, at least one fire extinguisher shall be of the multipurpose dry chemical type if the facility is provided with electrical power.

7.3.8.3 Location. Portable fire extinguishers for permanent consumer fireworks retail sales facilities and stores shall be located so that the maximum distance of travel required to reach an extinguisher from any point does not exceed 75 ft (23 m), as specified in NFPA 10, *Standard for Portable Fire Extinguishers*.

7.3.9 Fire Alarms. A fire alarm system shall be provided as required by NFPA 101, *Life Safety Code*.

7.3.10 Smoke Control.

7.3.10.1 Smoke and heat vents designed and installed in accordance with NFPA 204, *Standard for Smoke and Heat Venting*, shall be provided in the CFRS area of new permanent CFRS facilities or stores where the ceiling height is less than 10 ft (3.05 m) and the travel distance to reach an exit is greater than 25 ft (7.6 m).

7.3.10.2 The smoke and heat vents required by 7.3.10.1 shall be automatically activated by a smoke detection system installed throughout the CFRS area in accordance with NFPA 72, *National Fire Alarm Code*.

7.3.11 No Smoking Signs.

7.3.11.1 Smoking shall not be permitted inside or within 50 ft (15.5 m) of the CFRS area.

7.3.11.2 At least one sign that reads as follows, in letters at least 2 in. (51 mm) high on a contrasting background, shall be conspicuously posted at each entrance or within 10 ft (3.05 m) of every aisle directly serving the CFRS area in a store:

FIREWORKS — NO SMOKING

7.3.12 Distance from Bulk Dispensing and Bulk Storage.

7.3.12.1 CFRS facilities and stores shall not be located within 50 ft (15.2 m) of the following:

- (1) Retail propane-dispensing station dispensers

- (2) Aboveground storage tanks for flammable or combustible liquid, flammable gas, or flammable liquefied gas
- (3) Compressed natural gas-dispensing station dispensers

7.3.12.2 New CFRS facilities and stores, existing CFRS stands and tents, and temporary CFRS facilities shall not be located within 50 ft (15.2 m) of motor vehicle fuel-dispensing station dispensers.

7.3.12.3 Existing CFRS facilities, other than CFRS stands, tents, and temporary facilities, and existing stores shall not be located within 25 ft (7.6 m) of motor vehicle fuel-dispensing station dispensers.

7.3.12.4 Fuel tanks on vehicles or other motorized equipment shall not be considered bulk storage.

7.3.12.5 Fuel storage for generators shall be in accordance with 7.4.9.2.

7.3.12.6 CFRS areas and storage areas shall not be located within 300 ft (91.2 m) of any aboveground bulk storage or bulk dispensing area for the following:

- (1) Flammable or combustible liquid
- (2) Flammable gas
- (3) Flammable liquefied gas

7.3.13* Fire Safety and Evacuation Plan. For a CFRS facility or store, an approved fire safety and evacuation plan shall be prepared in writing and maintained current.

7.3.14 Means of Egress.

7.3.14.1 Number of Exits.

7.3.14.1.1 The minimum number of exits provided from the retail sales area shall be not less than three or as determined in accordance with NFPA 101, *Life Safety Code*, whichever number is greater.

7.3.14.1.2 Required means of egress from the retail sales area shall not be allowed to pass through storage rooms.

7.3.14.2 Egress Travel Distance. Exits provided for the retail sales area of tents, membrane structures, canopies, and permanent CFRS facilities, including Class C stores, 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 (22.9 m).

7.3.14.3 Aisles. Aisles serving as a portion of the exit access in CFRS areas shall comply with this paragraph.

7.3.14.3.1 Aisle Width.

7.3.14.3.1.1 Aisles shall have a minimum clear width of 48 in. (1.2 m).

7.3.14.3.1.2 The required width of aisles shall be maintained unobstructed at all times the facility is occupied by the public.

7.3.14.3.2* Aisle Arrangements.

7.3.14.3.2.1 Not less than one aisle shall be provided and arranged so that travel along the aisle leads directly to an exit.

7.3.14.3.2.2 Other required exits shall be located at, or within 10 ft (3.05 m) of, the end of an aisle or a cross-aisle.

7.3.14.3.2.3 Aisles shall terminate at an exit, another aisle, or a cross-aisle.

7.3.14.3.2.4 Dead-end aisles shall be prohibited.

7.3.14.3.2.5 Where more than one aisle is provided, not less than one cross-aisle shall have an unobstructed connection with every aisle, other than cross-aisles.

7.3.14.3.2.6 Cross-aisle connections shall be provided for each aisle at intervals not greater than 50 ft (15.2 m) as measured along the aisle.

7.3.14.3.2.7 Where cross-aisles are required, not less than one cross-aisle shall have at least one end terminate at, or within 10 ft (3.05 m) of, an exit.

7.3.14.4 Doors and Doorways. Doors and doorways used in the means of egress shall comply with this paragraph.

7.3.14.4.1 Egress doors shall be not less than 36 in. (910 mm) in width [providing a minimum of 32 in. (813 mm) clear width].

7.3.14.4.2 Every egress door that has a latching device shall be provided with panic hardware complying with NFPA 101, *Life Safety Code*.

7.3.14.4.3 Means of egress doors shall be of the side-hinge swinging type and shall be arranged to swing in the direction of egress travel.

7.3.14.5 Exit Signs.

7.3.14.5.1 Exits shall be marked by an approved exit sign in accordance with NFPA 101, *Life Safety Code*.

7.3.14.5.2 Exit signs shall be required to be self-luminous or internally or externally illuminated.

7.3.14.6 Emergency Lighting.

7.3.14.6.1 The means of egress, including the exit discharge, shall be illuminated whenever the facility is occupied in accordance with NFPA 101, *Life Safety Code*.

7.3.14.6.2 Emergency lighting shall be provided for CFRS facilities and stores and shall comply with NFPA 101, *Life Safety Code*.

7.3.15* Retail Sales Displays.

7.3.15.1 General. The requirements of this section shall apply only to CFRS areas, unless otherwise specifically indicated.

7.3.15.2* Height of Sales Displays. To provide for visual access of the retail sales area by the employees and customers, partitions, counters, shelving, cases, and similar space dividers shall not exceed 6 ft (1.8 m) in height above the floor surface inside the perimeter of the retail sales area.

7.3.15.2.1 Merchandise on display or located on shelves or counters or other fixtures shall not be displayed to a height greater than 6 ft (1.8 m) above the floor surface within the CFRS area.

7.3.15.2.2 Where located along the perimeter of the consumer fireworks retail sales area, the maximum height of sales displays shall be limited to 12 ft (3.66 m).

7.3.15.3* Flame Breaks.

7.3.15.3.1 Where continuous displays of consumer fireworks are located on shelving, cases, counters, and similar display fixtures, a flame break shall be provided so that the maximum distance between flame breaks does not exceed 16 ft (4.9 m) where measured along the length of the display.

7.3.15.3.2 The flame break shall extend as follows:

- (1) From the display surface to not less than 6 in. (150 mm) above the full height of the displayed merchandise or to the underside of the display surface directly above
- (2) For the full depth of the displayed merchandise

7.3.15.3.3* Where packaged fireworks merchandise is displayed on the same level as individual unpackaged fireworks devices, the flame break required in 7.3.15.3.1 shall not be required where both of the following criteria are met:

- (1) The length of the display level containing individual unpackaged fireworks devices is interrupted by packaged fireworks merchandise, or open space, or any combination thereof, having a continuous length of not less than 8 ft (2.4 m).
- (2) The distance between flame breaks does not exceed 32 ft (9.8 m).

7.3.15.3.4 Where a merchandise display level contains packaged fireworks merchandise, such merchandise shall be permitted to be displayed in a continuous length on the same level, where the display does not exceed 32 ft (9.8 m) without the flame break required in 7.3.15.3.1.

7.3.15.3.5 An aisle having a minimum width of 48 in. (1.2 m) shall be permitted to substitute for the flame break required in 7.3.15.3.1.

7.3.15.3.6 Where displays of merchandise face aisles that run along both long sides of the display fixtures or display surface, a flame break shall be installed lengthwise between the abutting display fixtures or along the approximate longitudinal centerline of the display surface so as to separate the merchandise facing one of the aisles from the merchandise that abuts it facing the other aisle.

7.3.15.3.7 Freestanding display racks, pallets, tables, or bins containing packaged fireworks merchandise shall be permitted without flame breaks, provided the dimensions of the area occupied by the fireworks merchandise do not exceed 4 ft (1.2 m) in width, 8 ft (2.4 m) in length, and 6 ft (1.8 m) in height, and the displayed fireworks merchandise is separated from other displays of merchandise by aisles having a minimum clear width of 4 ft (1.2 m).

7.3.15.3.8 Where both of the facing vertical surfaces of the abutting display fixtures are constructed of perforated hardboard panels not less than ¼ in. (6 mm) thick that are separated from each other by an open space not less than 1½ in. (38 mm) wide, a flame break specified in 7.3.15.3.6 shall not be required.

7.3.15.4 Shelving.

7.3.15.4.1 Shelving or other surfaces used to support fireworks display merchandise shall be permitted to have not more than 10 percent of the area of the shelf contain holes or other openings.

7.3.15.4.2 The 10 percent limitation on the area of holes or other openings in the shelf used to support fireworks display merchandise shall not be applicable under the following conditions:

- (1) Where both of the facing vertical surfaces of the abutting display fixtures are constructed of perforated hardboard panels not less than ¼ in. (6 mm) thick and separated from each other by an open space not less than 1½ in. (38 mm) wide

- (2) Where such merchandise is suspended from or fastened to the shelf or surface or is displayed as packaged merchandise on the surface or in bins

7.3.15.4.3 Flame breaks and solid display surfaces shall not be required for packaged fireworks merchandise displayed in bins or display racks or on pallets or tables located at the end of a row of display fixtures where the following conditions are met:

- (1) Such end displays are separated from the ends of the display fixtures by an open space not less than 3 in. (76 mm) wide.
- (2) The fireworks merchandise occupies an area having dimensions not greater than the width of the end of the row of display fixtures and a depth not greater than 36 in. (910 mm).
- (3) The minimum required widths of the adjacent aisles are maintained, but in no case is the aisle width less than 48 in. (1.2 m).

7.3.15.5 Covered Fuses.

7.3.15.5.1 Only consumer fireworks meeting the criteria for covered fuses as defined in 3.3.22 or as described in 7.3.15.5.2 shall be permitted where the retail sales of consumer fireworks are conducted.

7.3.15.5.2 A consumer fireworks device shall be considered as having a covered fuse if the fireworks device is contained within a packaged arrangement, container, or wrapper that is arranged and configured such that the fuse of the fireworks device cannot be touched directly by a person handling the fireworks without the person having to puncture or tear the packaging or wrapper, unseal or break open a package or container, or otherwise damage or destroy the packaging material, wrapping, or container within which the fireworks are contained.

7.3.15.6* Aerial Devices. Aerial devices shall be packaged and displayed for sale in a manner that will limit travel distance of ejected pyrotechnic components if ignition of the fireworks occurs.

7.3.15.7* Horizontal Barriers. Combustible materials and merchandise shall not be stored directly above the consumer fireworks in retail sales displays unless a horizontal barrier is installed directly above the consumer fireworks as prescribed in 7.4.2.2.5 of NFPA 430, *Code for the Storage of Liquid and Solid Oxidizers*.

7.3.16 Electrical Equipment. All electrical wiring shall be in accordance with NFPA 70, *National Electrical Code*.

7.3.17 Heating Equipment.

7.3.17.1 Heating units shall be listed and shall be used in accordance with their listing.

7.3.17.2 Temporary heating sources shall have tip-over and temperature-overheat protection.

7.3.17.3 Open-flame and exposed-element heating devices shall be prohibited.

7.3.18 Portable Generators.

7.3.18.1 Class II and Class III combustible liquid generator fuel shall be limited to not more than 5 gal (18.9 L).

7.3.18.2 Portable generators shall be permitted to use Class I flammable liquids as fuel, provided the quantity of such fuel is limited to 2 gal (7.6 L).

7.3.19 Operations.

7.3.19.1 General. 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.

7.3.19.2 Distances from Entrances and Exits.

7.3.19.2.1 No consumer fireworks shall be displayed for sale or stored within 5 ft (1.5 m) of any public entrance in an enclosed building or structure.

7.3.19.2.2 No consumer fireworks shall be displayed for sale or stored within 2 ft (0.6 m) of any exit or private entrance in an enclosed building or structure.

7.3.19.3 Security.

7.3.19.3.1 CFRS facilities and stores shall be secured when unoccupied and not open for business, unless fireworks are not kept in the facility during such times.

7.3.19.3.2 The fireworks displayed or stored in a CFRS facility or store shall be allowed to be removed and transferred to a temporary storage structure or location.

7.3.19.4 Fireworks shall not be ignited, discharged, or otherwise used within 300 ft (91.5 m) of a CFRS facility or store.

7.3.20 Display and Handling. Not less than 50 percent of the available floor area within the retail sales area shall be open space that is unoccupied by retail displays and used only for aisles and cross-aisles.

7.3.21* Housekeeping.

7.3.21.1 CFRS areas and storage rooms shall be kept free of accumulations of debris and rubbish.

7.3.21.2 Any loose pyrotechnic composition shall be removed immediately.

7.3.21.3 Vacuum cleaners or other mechanical cleaning devices shall not be used.

7.3.21.4 Brooms, brushes, and dustpans used to sweep up any loose powder or dust shall be made of nonsparking materials.

7.3.21.5 Consumer fireworks devices that are damaged shall be removed and not offered for sale.

7.3.21.6 Damaged consumer fireworks shall be permitted to be returned to the dealer or shall be disposed of according to the manufacturer's instructions.

7.3.22* Training. All personnel handling consumer fireworks shall receive safety training related to the performance of their duties.

7.3.23 Under the Influence. Any person selling consumer fireworks shall not knowingly sell consumer fireworks to any person who is obviously under the influence of alcohol or drugs.

7.3.24 Records.

7.3.24.1 Records shall be maintained on available inventory on the premise.

7.3.24.2 Records shall be made available to the AHJ upon request.

7.4 Consumer Fireworks Retail Sales (CFRS) Facility Requirements.

7.4.1 Plan. Where required, plans for CFRS facilities shall be submitted to the AHJ with the permit application.

7.4.2 Site Plan. The site plan for tents shall show the location of the tent on the site and indicate the minimum separation distances required by 7.4.7.

7.4.3 Construction Materials. The following construction materials requirements shall apply to new permanent CFRS facilities in jurisdictions that have not adopted a local building code:

- (1) Buildings having an area up to and including 8000 ft² (743 m²) shall be permitted to be constructed of any approved construction materials.
- (2) Buildings having an area greater than 8000 ft² (743 m²) shall be constructed in accordance with one of the following:
 - (a) Buildings shall be constructed of noncombustible or limited-combustible materials.
 - (b) Buildings with exterior walls having a fire resistance rating of not less than 2 hours shall be permitted to have the roof decking and its supporting structure and interior partitions constructed of combustible materials.
- (3) Roof coverings for any building shall have a minimum rating of Class C as determined in accordance with NFPA 256, *Standard Methods of Fire Tests of Roof Coverings*.

7.4.4 Multiple-Tenant Buildings.

7.4.4.1 Where new CFRS facilities are located in a building containing other tenants, the CFRS facility shall be separated from the other tenants by fire barriers having no openings and a fire resistance rating of not less than 2 hours.

7.4.4.2 Where the new CFRS facility is protected per NFPA 13, *Standard for the Installation of Sprinkler Systems*, the fire resistance rating of the fire barrier required by 7.4.4.1 shall be permitted to be not less than 1 hour.

7.4.4.3 Any penetrations of the fire barrier shall be protected in accordance with NFPA 101, *Life Safety Code*.

7.4.5 Fire Protection.

7.4.5.1 Automatic Sprinkler System Alarm. Any waterflow alarm device shall be arranged to activate audible and visual alarms throughout the CFRS facility in accordance with NFPA 72, *National Fire Alarm Code*.

7.4.5.2 Portable Fire Extinguishers. Portable fire extinguishers for temporary CFRS facilities shall be installed and located so that the maximum distance of travel required to reach an extinguisher from any point does not exceed 35 ft (10.6 m).

7.4.5.3 Public Notification. In permanent CFRS facilities greater than 3000 ft² (278.6 m²) in area, a public address system or a means for manually activating audible and visible alarm indicating devices located throughout the facility in accordance with NFPA 72, *National Fire Alarm Code*, shall be provided at a constantly attended location when the CFRS facility is occupied.

7.4.6 Site Requirements.

7.4.6.1 Clearance to Combustibles. The area located within 30 ft (9 m) of a CFRS facility shall be kept free of accumulated dry grass, dry brush, and combustible debris.

7.4.6.2 Parking. No motor vehicle or trailer used for the storage of consumer fireworks shall be parked within 10 ft (3 m) of a CFRS facility, except when delivering, loading, or unloading fireworks or other merchandise and materials used, stored, or displayed for sale in the facility.

7.4.6.3 Fireworks Discharge. At least one sign that reads as follows, in letters at least 4 in. (102 mm) high on a contrasting background, shall be conspicuously posted on the exterior of each side of the CFRS facility:

NO FIREWORKS DISCHARGE
WITHIN 300 FEET

7.4.7 Separation Distances.

7.4.7.1 Permanent Facilities.

7.4.7.1.1 New Facilities. New permanent consumer fireworks retail sales facilities shall be separated from adjacent permanent buildings and structures in accordance with Table 7.4.7.1.1.

Table 7.4.7.1.1 Separation Distances Between New Permanent Buildings and Structures

Separation Distances		Exterior Wall Fire Resistance Rating (hr)	Exterior Wall Opening Protection Rating (hr)
ft	m		
< 10	< 3.05	2	1½
≥ 10 < 60	≥ 3.05 < 18.3	1	¾
≥ 60	≥ 18.3	0	0

7.4.7.1.2 Existing Facilities. Existing permanent CFRS facilities shall be separated from adjacent permanent buildings and structures by not less than 10 ft (3.05 m) or shall be separated by a wall with a 1-hour fire resistance rating.

7.4.7.2 Temporary Facilities. Temporary CFRS facilities shall be located as specified in Table 7.4.7.2.

7.4.8 Means of Egress.

7.4.8.1 General.

7.4.8.1.1 Means of egress in CFRS facilities shall comply with the applicable requirements of NFPA 101, *Life Safety Code*, as modified by 7.3.14 and 7.4.8.

7.4.8.1.2* Means of egress in tents and membrane structures used for retail sales of consumer fireworks shall also comply with NFPA 102, *Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures*, as modified by 7.3.14 and 7.4.8.

7.4.8.2 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 CFRS facility.

7.4.8.3 Exit signs shall not be required to be illuminated in tents that are not open for business after dusk.

7.4.8.4 Emergency lighting shall not be required in tents that are not open for business after dusk.

7.4.8.5 Exit openings from tents shall have a clear opening width of not less than 44 in. (1100 mm).

7.4.9 Source of Ignition.

7.4.9.1 Temporary Electrical Equipment. Battery-powered equipment, electrical equipment, and electrical cords that are used in conjunction with a CFRS facility area shall be listed and shall be used in accordance with their listing.

7.4.9.1.1 Temporary wiring installed in a temporary structure, including tents and canopies, shall comply with Article 305 of NFPA 70, *National Electrical Code*.

7.4.9.1.2 Where temporary electrical conductors are placed on top of an outdoor surface to connect the permanent power source to the temporary CFRS facility's temporary electrical system, the conductors shall be provided with physical protection against damage caused by pedestrian or vehicular traffic.

7.4.9.2 Portable Generators.

7.4.9.2.1 Portable generators supplying power to CFRS facilities shall use only Class II or Class III combustible liquid fuels.

7.4.9.2.2 Portable generators shall be located not less than 20 ft (6.1 m) from the CFRS facility.

7.4.9.2.3 Generator fuels shall be stored not less than 20 ft (6.1 m) from the CFRS facility.

7.4.9.2.4* Where the generator fuel storage is located not less than 50 ft (15.2 m) from the CFRS facility, the quantity of such fuel shall not be limited by 7.3.17.

7.4.9.3 Cooking Equipment.

7.4.9.3.1 Cooking equipment of any type shall not be permitted within 20 ft (6.1 m) of tents, canopies, or membrane structures used for the storage or sale of consumer fireworks.

7.4.9.3.2 Open flame cooking equipment of any type shall not be allowed within 50 ft (15.2 m) of tents, canopies, or membrane structures used for the storage or sale of consumer fireworks.

Table 7.4.7.2 Temporary CFRS Facilities — Minimum Separation Distances

	Buildings		Combustibles ^a		Tents ^b		Vehicle Parking		Stands ^c		Storage of Consumer Fireworks	
	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m
Tents ^b	20	6.1	20	6.1	20	6.1	10	3.05	20	6.1	20	6.1
Stands ^c	20	6.1	10	3.05	20	6.1	10	3.05	5 ^d	1.5 ^d	20	6.1

^a The required clearances to combustibles shall also comply with 7.4.6.1.
^b Tents refers to temporary retail sales of consumer fireworks in tents, canopies, and membrane structures.
^c Stands refers to temporary CFRS stands.
^d Where stands are separated from each other by less than 20 ft (6.1 m), the aggregate area of such stands shall not exceed 800 ft² (74 m²).

7.4.10 Quantity Limitations. The floor area occupied by the retail displays of consumer fireworks in permanent CFRS facilities shall not exceed 40 percent of the available floor area within the retail sales area.

7.4.11 Flame Breaks. In CFRS facilities the longitudinal flame break required in 7.3.15.3.6 shall not be required where the display fixture or surface is adjacent to an aisle that is not used for public egress.

7.5 Stores.

7.5.1 General.

7.5.1.1* For the purpose of this chapter, stores in which retail sales of consumer fireworks are conducted shall not be considered CFRS facilities as defined in 3.3.29.1 where both of the following conditions exist:

- (1) The area of the retail sales floor occupied by the retail displays of consumer fireworks does not exceed 25 percent of the area of the retail sales floor in the building or 600 ft² (55.5 m²), whichever is less.
- (2) The consumer fireworks are displayed and sold in a manner approved by the AHJ and comply with the applicable provisions of this code, federal and state law, and local ordinances.

7.5.1.2 Consumer fireworks displayed for sale in stores shall comply with the following:

- (1) Such fireworks shall be under the visual supervision of a store employee or other responsible party while the store is open to the public.
- (2) Such fireworks shall be packaged fireworks merchandise.
- (3)*Such fireworks shall be packaged and displayed for sale in a manner that will limit travel distance of ejected pyrotechnical components if ignition of the fireworks occurs.
- (4) Where consumer fireworks meeting the descriptions of C.3.1.2 or C.3.1.3 for aerial devices and audible ground devices, respectively, are sold, such devices shall be displayed for sale in an area of the store that is physically separated from the rest of the store in a manner that restricts entry by the public, and the area of the store shall be provided with not less than two means of egress, so located that there is no common path of travel and the distance to reach an egress point from the area does not exceed 35 ft (10.7 m).

7.5.2 Egress. Means of egress in stores shall comply with NFPA 101, *Life Safety Code*, unless otherwise specified in 7.3.14.

7.5.3 Storage Rooms. Storage rooms containing consumer fireworks in a new permanent store shall be protected with an automatic sprinkler system installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, or separated from the retail sales area by a fire barrier having a fire resistance rating of not less than 1 hour.

7.5.3.1 Door and window openings in the fire barrier wall shall be protected by self-closing fire doors or fixed fire windows having a fire protection rating of not less than 1 hour and shall be installed in accordance with NFPA 80, *Standard for Fire Doors and Fire Windows*.

7.5.3.2 Any other openings or penetrations in the fire barrier wall shall be protected in accordance with NFPA 101, *Life Safety Code*.

7.5.4 Alarm Notification. In Class B stores, a public address system or a means for manually activating audible and visible alarm

indicating devices located throughout the facility in accordance with NFPA 72, *National Fire Alarm Code*, shall be provided at a constantly attended location when the store is occupied.

7.5.5 Flame breaks shall be allowed to be omitted in stores protected throughout with an automatic sprinkler system installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*.

7.6 Stands.

7.6.1 Site Plan. The site plan for stands shall show the location of the stand on the site and indicate the minimum separation distances required by 7.4.7.

7.6.2 Temporary Stands.

7.6.2.1 Portable Fire Extinguisher. Temporary CFRS stands of less than 200 ft² (18.6 m²) shall be required to have only one portable fire extinguisher.

7.6.2.2 Fire Safety and Evacuation Plan. An approved fire safety and evacuation plan shall not be required for temporary CFRS stands.

7.6.2.3 Means of Egress.

7.6.2.3.1 Retail sales areas within temporary CFRS stands shall have a minimum of two exits.

7.6.2.3.2 Exits provided for temporary fireworks retail sales stands shall be located such that the maximum egress travel distance as measured from the most remote point to an exit along the natural and unobstructed path of egress travel does not exceed 35 ft (10.6 m).

7.6.2.3.3 Customers shall not be permitted inside a temporary CFRS stand unless it complies with the means of egress requirements in 7.3.14.

7.6.2.3.4 Exit signs shall not be required to be illuminated in stands that are not open for business after dusk, or in temporary CFRS stands where the interior is not accessible to the public.

7.6.2.3.5 Emergency lighting shall not be required in stands that are not open for business after dusk or for temporary CFRS stands where the interior is not accessible to the public.

7.6.3 Minimum Separation Distances. Temporary CFRS stands shall be separated from adjacent buildings and structures in accordance with Table 7.4.7.2.

7.6.4 Stands Not Open to the Public.

7.6.4.1 Minimum Clear Width of Aisles. In temporary CFRS stands where the interior is not accessible to the public, the minimum clear width of the aisle shall be permitted to be not less than 28 in. (710 mm).

7.6.4.2 Egress Doors.

7.6.4.2.1 Egress doors provided for temporary CFRS stands where the interior is not accessible to the public shall be permitted to be not less than 28 in. (710 mm) in width.

7.6.4.2.2 For temporary CFRS stands where the interior is not accessible to the public, latching devices on doors shall be permitted without panic hardware.

7.6.4.3 Storage. In temporary CFRS stands where the interior is not accessible to the public, the maximum height of sales displays shall be limited to 8 ft (2.44 m).

7.6.4.4 Flame Breaks. Temporary CFRS stands where the interior is not accessible to the public shall not be required to comply with 7.3.15.3.

7.6.4.5 Covered Fuses. Individual consumer fireworks items displayed for sale in temporary CFRS stands where the interior is not accessible to the public shall not be required to have covered fuses.

7.6.4.6 Sales Display. The following shall apply to the sales display of consumer fireworks in temporary CFRS stands that do not allow access to the interior of the stand by the public:

- (1) Consumer fireworks shall be displayed in a manner that prevents the fireworks from being handled by persons other than those operating, supervising, or working in the temporary CFRS stand.
- (2) The handling requirements of 7.6.4.6(1) shall not apply to packaged assortments, boxes, or similarly packaged containers of one or more items, regardless of type.

Chapter 8 Transportation on Public Highways of Fireworks, Pyrotechnic Articles, and Any Component(s) Containing Pyrotechnic or Explosive Materials

8.1 General Requirements. Transportation on public highways of fireworks, pyrotechnic articles, and any component(s) containing pyrotechnic or explosive materials shall meet all applicable requirements of the U.S. Department of Transportation (U.S. DOT), 49 CFR 170 to end, and any applicable local, state, or international requirements.

Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.1.3.11 Novelties are not classified as fireworks. See Annex C.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief, fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory

authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.2.3 Code. The decision to designate a standard as a "code" is based on such factors as the size and scope of the document, its intended use and form of adoption, and whether it contains substantial enforcement and administrative provisions.

A.3.2.5 Listed. The means for identifying listed equipment may vary for each organization concerned with product evaluation; some organizations do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

A.3.3.1 Aerial Shell. Comets and mines are not aerial shells. The shells are most commonly 3 in. to 6 in. (76 mm to 152 mm) outside diameter and are fired from mortars. Upon firing of the shell, the fuse and lift charge are consumed. [1123, 2006]

A.3.3.5.3 Screen Barricade. Such barricades can be constructed of metal roofing, ¼ in. to ½ in. (6 mm to 13 mm) mesh screen, or equivalent material.

A.3.3.7 Binary System. The ingredients for such a system are shipped separately as an oxidizer and a fuel. The ingredients do not become a pyrotechnic material until they are mixed.

A.3.3.9.1 Consumer Fireworks Storage Building. Consumer fireworks storage buildings are typically found at manufacturing or distribution facilities and are not considered to be process buildings, rooms, or areas.

A.3.3.9.2 Consumer Fireworks Work Building, Room, or Area. Work buildings, rooms, or areas are typically found at manufacturing or distribution facilities and are considered non-process buildings, rooms, or areas.

A.3.3.9.3 Inhabited Building. The term includes any church, school, store, railway passenger station, airport passenger terminal, and any other building or structure where people are accustomed to congregate or assemble. This term does not include any building or structure occupied in connection with the manufacture, transportation, storage, distribution, packing, packaging, shipping, or use of explosive materials or fireworks at a manufacturing or distribution facility.

A.3.3.9.4 Mechanical Building. A mechanical building is intended to be an unoccupied building.

A.3.3.9.5 Mixing Building. This definition does not apply to wet sparkler mix preparation.

A.3.3.9.6 Nonprocess Building. A pyrotechnic laboratory is considered to be a nonprocess building, but it is subject to the required separation distances for a consumer fireworks process building.

A.3.3.9.7 Process Building. Examples of operations performed in a process building include, but are not limited to, the following:

- (1) Assembling internal component parts or exposed pyrotechnic compositions into finished fireworks
- (2) Mixing pyrotechnic or explosive compositions