

State Fire Marshal Division

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RETAIL SALES OF CONSUMER FIREWORKS

SECTION 1 – INTRODUCTION

This fire safety information sheet is based on National Fire Protection Association (NFPA) Standard 1124, Chapter 7 regulating the retail sale of consumer fireworks. A retail consumer fireworks facility may be required to meet other code provisions that are not listed in this document. This information sheet provides an overview of the major code requirements that apply to both temporary and permanent consumer fireworks retail sales occupancies and does not attempt to cover every situation.

The requirements listed below come from NFPA 1124 (2003 Edition) which is referenced in Minnesota Statutes 624.20, and are intended to provide direction for businesses who sell consumer fireworks legal in the state of Minnesota. Failure to comply with the requirements of NFPA 1124 (2003 edition) may result in denial or revocation of a consumer fireworks retail sales permit.

Consumer fireworks can be sold in permanent and temporary stores (tents, canopies, stands, membrane structures, etc.). All permanent and temporary consumer fireworks retail sales facilities shall also comply with the applicable requirements of the 2003 Minnesota State Fire Code (MSFC). The MSFC (03) will take precedence over the design, construction and fire protection related provisions of NFPA 1124 (2003 Edition). Because of this it is important to check with your local fire official for the specific code requirements. More information is available from the Minnesota State Fire Marshal Division at www.fire.state.mn.us or questions can be e-mailed to our office at firecode@state.mn.us.

SECTION 2 – MINNESOTA STATUTE 624.20

2.1 Minnesota Statute 624.20

“A local unit of government may not... prohibit or restrict the display of items for permanent or temporary retail sale authorized under paragraph (c) that comply with National Fire Protection Association Standard 1124 (2003 edition);...”

If a consumer fireworks retailer can demonstrate they comply with the regulations in NFPA 1124 (2003 Edition), Statute 624.20 states a local jurisdiction must allow the retail stand to occur. With one exception, if a local jurisdiction prohibits retail stands of all kinds (“farmers” markets, sales of fruits, vegetables, etc.) it can prohibit the retail sale of fireworks.



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This information sheet shall not apply to the storage and use of public display class fireworks. Please review the State Fire Marshal Division information sheet on public display class fireworks regulations for additional information on this subject. NFPA standards are copyrighted documents and are not available free of charge. All NFPA documents can be purchased by contacting NFPA directly at www.nfpa.org or 800-344-3555.

Common definitions used in NFPA 1124 (2003 Edition):

- **Consumer Fireworks Retail Sales Area.** The portion of a consumer fireworks retail sales facility or store, including the immediately adjacent aisles, where consumer fireworks are located for the purpose of retail display and sale to the public.

Examples of this would be the fireworks display area inside a mercantile occupancy that is not in the sole business of selling consumer fireworks.

- **Consumer Fireworks Retail Sales Stand.** A temporary or permanent building or structure that has a floor area not greater than 800 ft², other than tents, canopies, or membrane structures, that is used primarily for the retail display and sale of consumer fireworks to the public.
- **Consumer Fireworks Retail Sales Facility.** A permanent or temporary building or structure, CFRS stand, tent, canopy, or membrane structure that is used primarily for the retail display and sale of consumer fireworks to the public.
- **Consumer Fireworks.** Small fireworks devices containing restricted amounts of pyrotechnic composition, designed primarily to produce visible or audible effects by combustion, that comply with the construction, chemical composition, and labeling regulations of the U.S. Consumer Product Safety Commission (CPSC), as set forth in CPSC 16 CFR 1500 and 1507, 49 CFR 172, and APA Standard 87-1, Standard for the Construction and Approval for Transportation of Fireworks, Novelties, and Theatrical Pyrotechnics.
- **Store.** A building classified as a mercantile occupancy that contains a variety of merchandise and that is not used primarily for the retail sales of consumer fireworks.
- **Temporary.** As applied to buildings or structures: a building or structure not meeting the definition for permanent structure. As applied to electrical power and wiring: electrical service in use or in place for a period of 90 consecutive calendar days or less.
- **Flame Break.** A solid material without holes or other openings, used to retard the spread of flame.

SECTION 3– APPLICABILITY

3.1 Sale of consumer fireworks

Retail sales of consumer fireworks in both new and existing buildings, structures, and facilities shall comply with the requirements of NFPA 1124, Chapter 7.

3.1.1 Buildings and structures

Permanent buildings and structures shall include the following:

- (1) Stores selling retail consumer fireworks (Target, Wal-Mart, Cub Foods, etc.)
- (2) Bulk merchandise retail facilities (Sam’s Club, Costco, etc.)
- (3) Consumer fireworks retail sales facilities (Permanent buildings and structures solely limited to the sale of consumer fireworks).

Temporary facilities shall include the following:

- (1) Consumer fireworks retail sales stands
- (2) Tents
- (3) Canopies
- (4) Membrane structures

3.2 Exempt amounts

The requirements of NFPA 1124 Chapter 7 shall not apply to consumer fireworks retail sales facilities or stores where the consumer fireworks are in packages and where the total quantity of consumer fireworks on hand does not exceed 125 pounds of pyrotechnic composition, or, in a building protected throughout with an approved automatic sprinkler system installed in accordance with NFPA 13 (2002 Edition), 250 pounds of pyrotechnic composition.

3.3 Mercantile occupancies

Retail sales of consumer class fireworks shall be limited to only those buildings classified by the Minnesota State Fire Code (MSFC) as mercantile (Group M) occupancies.

SECTION 4 – PERMITS AND PLANNING

4.1 Permit and plan requirements (both temporary and permanent retail sites)

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

4.2 Plans (both temporary and permanent retail sites)

Plans for permanent and temporary consumer fireworks retail sales buildings shall include the following:

- (1) Minimum distances from the following:

- (a) Public ways
 - (b) Buildings
 - (c) Other consumer fireworks retail sales 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 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

4.3 Fire department access (both temporary and permanent retail sites)

Any portion of an exterior wall of a building, sidewall of a tent, or other defined perimeter of a consumer fireworks retail sales stand or store shall be accessible within 150 ft of a public way or an approved fire apparatus access.

4.4 Construction/Installation of Buildings and Temporary Structures (both temporary and permanent retail sites)

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 Chapter 7
- (4) Temporary consumer fireworks retail stands greater than 800 ft² 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 consumer fireworks retail sales stands.

4.4.1 Setback requirements

Table 7.7.2 Temporary Consumer Fireworks Retail Sales Facilities - Minimum Separation Distances

(feet)	Buildings	Combustibles a	Tents b	Vehicle Parking	Stands c	Storage of Consumer Fireworks
Tents b	20	20	20	10	20	20
Stands c	20	10	20	10	5 d	20

a the required clearances to combustibles shall also comply with 7.6.2

b Tents refers to temporary consumer fireworks retail sales in tents, canopies and membrane structures

c Stands refers to temporary consumer fireworks retail sales stands

d Where stands are separated from each other by less than 20 feet, the aggregate area of such stands shall not exceed 800 ft².

4.4.2 Automatic sprinkler systems (permanent retail sales)

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 the fire area exceeds 12,000 square feet.

4.4.3 Portable fire extinguishers (both temporary and permanent retail sites)

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. Temporary consumer fireworks retail stands less than 200 ft² shall be required to have only one portable fire extinguisher.

Portable fire extinguishers shall be provided as required for extra (high) hazard occupancy in accordance with NFPA 10, *Standard for Portable Fire Extinguishers* (2002 Edition). 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, as specified in NFPA 10 (2002 Edition).

4.4.4 No smoking signs (both temporary and permanent retail sites)

Smoking shall not be permitted inside or within 50 ft of the retail area. At least one sign that reads as follows, in letters at least 2 in. high on a contrasting background shall be conspicuously posted at each entrance or within 10 ft of every aisle directly serving the retail area in a store:

FIREWORKS — NO SMOKING

4.4.5 Retail sales displays (both temporary and permanent retail sites)

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 in height above the floor surface inside the perimeter of the retail sales area. Merchandise on display or located on shelves or counters or other fixtures shall not be displayed to a height greater than 6 ft above the floor surface within the retail area. Where located along the perimeter of the consumer fireworks retail sales area, the maximum height of sales displays shall be limited to 12 ft.

The provisions of this section shall only apply to consumer fireworks retail sales facilities and stores where the retail sales of consumer fireworks are conducted, unless otherwise specifically indicated.

4.4.6 Flame breaks (both temporary and permanent retail sites)

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 where measured along the length of the display.

The flame break shall extend as follows:

- (1) From the display surface to not less than 6 inches 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

Where installed within a retail display fixture containing consumer fireworks, the flame break should impede or retard the rapid spread of an incipient fire involving the fireworks and their packaging materials as any of the following occurs:

- (1) The fire progresses along a display level or shelf.
- (2) The fire attacks another display level or shelf above.
- (3) The fire attacks another display fixture abutting the display fixture of origin.

As a result of installing flame breaks to impede fire spread, the quantity and rate of smoke production can be retarded as well. Thus, flame breaks can provide the building occupants with additional time to react to an incipient fire and safely evacuate the building.

4.4.7 Shelving (both temporary and permanent retail sites)

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.

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.

4.4.8 Covered fuses (both temporary and permanent retail sites)

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

4.4.9 Electrical and heating equipment (both temporary and permanent retail sites)

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

Heating units shall be listed and shall be used in accordance with their listing. Temporary heating sources shall have tip-over and temperature-overheat protection. Open-flame and exposed-element heating devices shall be prohibited.

SECTION 5 –MEANS OF EGRESS

5.1 Means of egress

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

Means of egress in tents and membrane structures used for retail sales of consumer fireworks shall also comply with the egress requirements of Chapter 24.

Permanent sites:

The minimum number of exits provided from the retail sales area shall be not less than three or as determined in accordance with the Minnesota State Fire Code, whichever number is greater.

Temporary sites:

Retail sales areas within temporary consumer fireworks retail facilities shall have a minimum of two exits.

5.1.1 Egress travel distance

Permanent sites:

Exits provided for the retail sales area of tents, membrane structures, canopies, and permanent retail fireworks facilities 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.

Temporary sites:

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.

5.1.2 Aisles

Aisles shall have a minimum clear width of 48 in. The required width of aisles shall be maintained unobstructed at all times the facility is occupied by the public.

5.1.2.1 Aisle arrangement

Not less than one aisle shall be provided and arranged so that travel along the aisle leads directly to an exit. Other required exits shall be located at, or within 10 ft of, the end of an aisle or a cross-aisle. Aisles shall terminate at an exit, another aisle, or a cross-aisle.

Dead-end aisles shall be prohibited.

5.1.3 Doors (both temporary and permanent retail sites)

Egress doors shall be not less than 36 inches in width [providing a minimum of 32 in. clear width]. Every egress door that has a latching device shall be provided with panic hardware. Means of egress doors shall be of the side-hinge swinging type and shall be arranged to swing in the direction of egress travel.

5.1.4 Exit Signs (both temporary and permanent retail sites)

Exits shall be marked by an approved exit sign in accordance with the Minnesota State Fire Code (MSFC). Exit signs shall be required to be self-luminous or internally or externally illuminated.

Exit signs shall not be required to be illuminated in tents or stands that are not open for business after dusk or in temporary consumer fireworks retail sales stands where the interior is not accessible to the public.

5.1.5 Emergency lighting (both temporary and permanent retail sites)

The means of egress, including the exit discharge, shall be illuminated whenever the facility is occupied in accordance with the MSFC. Emergency lighting shall be provided for retail facilities and stores and shall comply with the MSFC.

Emergency lighting shall not be required to be illuminated in tents or stands that are not open for business after dusk or in temporary consumer fireworks retail sales stands where the interior is not accessible to the public.

5.1.6 Fire safety evacuation plan

For a permanent consumer fireworks retail sales facility, an approved fire safety and evacuation plan shall be prepared in writing and maintained current.

An approved fire safety and evacuation plan shall not be required for temporary consumer fireworks stands.

SECTION 6 – GENERAL OPERATION REQUIREMENTS

6.1 Means of egress (both temporary and permanent retail sites)

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.

6.2 Distance from entrance and exits (both temporary and permanent retail sites)

No consumer fireworks shall be displayed for sale or stored within 5 ft of any public entrance in an enclosed building or structure. No consumer fireworks shall be displayed for sale or stored within 2 ft of any exit or private entrance in an enclosed building or structure.

6.3 Security (both temporary and permanent retail sites)

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. The fireworks displayed or stored in a retail facility or store shall be allowed to be removed and transferred to a temporary storage structure or location. Fireworks shall not be ignited, discharged, or otherwise used within 300 ft of a CFRS facility or store.

6.4 Display and handling (both temporary and permanent retail sites)

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.

6.5 Housekeeping (both temporary and permanent retail sites)

CFRS areas and storage rooms shall be kept free of accumulations of debris and rubbish. Any loose pyrotechnic composition shall be removed immediately. Vacuum cleaners or other mechanical cleaning devices shall not be used. Brooms, brushes, and dustpans used to sweep up any loose powder or dust shall be made of nonsparking materials. Consumer fireworks devices that are damaged shall be removed and not offered for sale. Damaged consumer fireworks shall be permitted to be returned to the dealer or shall be disposed of according to the manufacturer's instructions.

6.6 Training (both temporary and permanent retail sites)

All personnel handling consumer fireworks shall receive safety training related to the performance of their duties. Any person selling consumer fireworks shall not knowingly sell consumer fireworks to any person who is obviously under the influence of alcohol or drugs.

6.7 Clearance to combustibles (both temporary and permanent retail sites)

The area located within 30 feet of a consumer fireworks retail sales facility shall be kept free of accumulated dry grass, dry brush and combustible debris.

6.8 Miscellaneous combustible materials storage

Storage of combustible materials shall be orderly. Storage shall be separated from heaters or other ignition sources in an approved manner such that ignition cannot occur [MSFC (07) Section 315.2].

6.9 Minnesota Department of Labor and Industry Rules

Minnesota Rule 5200.0910(b) states: No minor under the age of 18 shall be employed in or about any place where explosives or pyrotechnics are manufactured, stored, handled or fired.