

## Office of State Fire Marshal

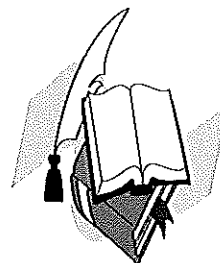
### Topic:

# Retail Sales & Related Storage of CT's "Consumer Fireworks"; AKA "Sparklers and Fountains"

June 3, 2010

General Information Notice 2010- 03

The following general information notice has been prepared by Terri Trenholm, Fire & Life Safety Specialist, as an update of the requirements of the Connecticut Fire Safety Code [CFSC] and its referenced documents as applicable to the Retail Sale and Storage of CT's "Consumer Fireworks"; AKA Sparklers and Fountains.



### Applicable documents include but are not limited to the following:

- CT General Statute 29-356 Definitions; fireworks, sparklers, fountains
- CT General Statute 29-357 Sale, Use & Possession of Fireworks, Sparklers & Fountains
- CT Regulation 29-140-1b to 8b inclusive; CT Tent & Portable Shelter Code
- CT Fire and Building Code Amendments of August 1, 2009
  - CFSC; Part V ADD Sections 20.12.2.4 and 20.12.2.4.3
  - CSBC; ADD Section 307.5.1 provides criteria allowing exemptions from classification as High Hazard Group 3 [H-3] & 307.5.2 amends NFPA 1126-2006 Section 7.5.3 Storage Rooms
- CFSC Part V Section 20.12.2.4 Storage and Display of "Consumer Fireworks" in *New & Existing* Mercantile Occupancies including CT Fire Code Amendment of August 1, 2009
- NFPA 1124- 2006; Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles as amended by CT Fire and Building Code Amendments of August 1, 2009 as indicated above
- CSBC Section 307.5 High Hazard Group 3 [H-3] as amended by CT Fire and Building Code Amendments of August 1, 2009 as indicated above

### "Consumer Fireworks" are limited to the following in Connecticut:

- Only persons sixteen years of age or older may *offer for sale, sell at retail, possess with intent to sell*, purchase, possess and/or use "sparklers and fountains" [CGS 29-357]
- "sparklers or fountains" of not more than one hundred grams of pyrotechnic mixture per item, which are non-explosive and non-aerial, provided;
  - (1) such "sparklers and fountains" do not contain magnesium, except for magnalium or magnesium-aluminum alloy,
  - (2) such "sparklers and fountains" containing any chlorate or perchlorate salts do not exceed five grams of composition per item, and
  - (3) that where more than one "fountain" is mounted on a common base, the total pyrotechnic composition does not exceed two hundred grams. [CGS 29-357]

➤ "sparklers and fountains" defined

- "Sparklers" are defined as a wire or stick coated with pyrotechnic composition that produces a shower of sparks upon ignition. [CGS 29-356]
- "Fountain" is defined as any cardboard or heavy paper cone or cylindrical tube containing pyrotechnic mixture that upon ignition *produces a shower of colored sparks or smoke*. "Fountain" includes, but is not limited to, (A) a spike fountain, which provides a spike for insertion into the ground, (B) a base fountain which has a wooden or plastic base for placing on the ground, or (C) a handle fountain which is a handheld device with a wooden or cardboard handle. [CGS 29-356]

*Any "fireworks" NOT within the parameters described above are NOT considered "Consumer Fireworks" AKA Sparklers and Fountains in Connecticut and are prohibited for use by anyone other than an individual granted a certificate of competency by the CT State Fire Marshal with a permit issued by the Office of State Fire Marshal specifically for that event and location.* [CGS 29-357]

An additional issue worthy of noting is that the indoor use of any pyrotechnics, including sparklers or fountains, for special effects requires a permit from the Office of State Fire Marshal. [CGS 29-357]

**Retail Sales, Display, and Storage of CT's "Consumer Fireworks"**

Retail sales, displays, and related storage of CT's "Consumer Fireworks" in the maximum quantities described below are classified as a *Mercantile* occupancy use group under the CFSC Part V Section 20.12.2.4 *in both New and Existing locations*. Additionally, it should be noted that where NFPA 1124-2006 refers to the NFPA 101 Life Safety Code it is the intent of the OSFM/BOE that the CFSC should be used in its place, thus allowing Part III for New and Part IV for Existing.

- *The 2009 CFSC Amendments ADD a requirement to Part V Section 20.12.2.4 for compliance with the NFPA 1124-2006; Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles except as modified in CFSC Part V Sections 20.12.2.4.1 through 20.23.2.4.3 inclusive.*

Please Note: The Connecticut definition of "Consumer Fireworks" supersedes the definition of such in NFPA 1124-2006 and therefore limits "Consumer Fireworks" in mercantile to sparklers and fountains meeting the criteria of the *Connecticut Statutes* above.

- *CFSC Part V Section 20.12.2.4.1* requires that "Consumer Fireworks" in a mercantile occupancy be under the supervision of a store employee or other responsible party while the store is open to the public.
- *CFSC Part V Section 20.12.2.4.2* prohibits the display or storage of "Consumer Fireworks" within 5 feet of any entrance or any exit from any enclosed building or structure.
- *CFSC Part V Section 20.12.2.4.3 AMENDS* NFPA 1124-2006 Section 7.5.3 Storage Rooms to the following:
  - *Storage rooms*, regardless of size, containing "Consumer Fireworks" in a *new or existing permanent store* shall

- be protected with an automatic sprinkler system installed in accordance with NFPA 13, *OR*
- be separated from the retail sales area by a fire barrier having a fire resistance rating of not less than 1-hour.
- The quantity of fireworks permitted in storage shall not exceed 3600 cubic feet, including packaging. Such storage shall be segregated into areas of 1200 cubic feet or less, separated by a minimum of 4 feet of clear space.

**However, before applying ANY requirements of NFPA 1124-2006 Chapter 7 please see the following:**

- *NFPA 1124-2006 Section 7.3.1* states; retail sales locations are *EXEMPT* from compliance with the requirements of the rest of NFPA 1124-2006 Chapter 7, Retail Sales of Consumer Fireworks, where the total quantity of *packaged* "consumer fireworks" on hand, including both displays and in storage, does not exceed:
  - 125 lb. ( 56.8 kg) *net* of pyrotechnic composition in a building *without* automatic sprinkler protection throughout *OR*
  - 250 lb. (113.6 kg) *net* of pyrotechnic composition in a building protected throughout with an approved automatic sprinkler system installed in accordance with the requirements of NFPA 13.
  - Where actual weight of pyrotechnics is not known 25% of the gross weight of the consumer fireworks including packaging shall be used to determine the weight of the pyrotechnic composition. This calculates to the following maximum gross weight;
    - 500 lb. (227.2 kg ) *gross weight* in a building *without* automatic sprinkler protection throughout *OR*
    - 1000 lb. (454.4 kg) *gross weight* in a building protected throughout with an approved automatic sprinkler system installed in accordance with the requirements of NFPA 13.

*PLEASE NOTE: Connecticut State Building Code Section 307.5.1 as amended in 2009 also allows the Building Official to exempt spaces or buildings used for the sale and related storage of sparklers and fountains in the same quantities from a use classification of High Hazard-Group 3 [H-3].*

**Where the exemptions for quantities above are NOT applicable then NFPA 1124-2006 Chapter 7 shall apply in its entirety.** [7.1.1, 7.3.1]

Important retail sales definitions from 1124-2006

- 3.3.74 Store; contains other merchandise in addition to "Consumer Fireworks", permanent or temporary,
- 3.3.19 "Consumer Fireworks" Retail Sales Stand [CFRS Stand]; not more than 800 sq. ft. primarily intended for the retail display and sales of "Consumer Fireworks", permanent or temporary

- 3.3.29 "Consumer Fireworks" Retail Sales Facility [CFRS Facility]; primarily intended for the retail display and sales of "Consumer Fireworks", permanent or temporary, [more than 800 sq. ft.]

NFPA 1124-2006, Chapter 7 is divided into segments applicable to the "CF" retail sales locations as defined above. Sections 7.1 through 7.3 inclusive are applicable to all three types of retail sales location. Section 7.4 has additional requirements for *CFRS Facilities*. Section 7.5 has additional requirements for *"CF" Stores*. Section 7.6 has additional requirements for *"CF" Stands*.

***Some of the key requirements where NFPA 1124-2006 Chapter 7 is applicable include but are not limited to the following:***

- *Fire Department Access*; any portion of an exterior wall of a building, a sidewall of a tent, or any other defined perimeter of a store shall be accessible within 150 feet of a public way or approved fire apparatus access. [7.3.4]
- *Portable Fire Extinguishers* [7.3.8]
- *Stores, including tents or temporary structures*, shall not be located within 50 feet of the following; retail propane-dispensing stations, aboveground storage tanks for flammable or combustible liquids or flammable gases or flammable liquefied gases. [7.3.12]
- *New stores, including tents or temporary structures*, shall not be within 50 feet of motor vehicle fuel dispensing stations. [7.3.12.2]
- *Existing stores, including tents or temporary structures*, shall not be located within 25 feet of motor vehicle fuel dispensing stations. [7.3.12.3]
- *Minimum number of exits*; not less than three or as determined in accordance with the requirements of the CFSC; whichever number is greater. [7.3.14.1]
- *Egress Travel Distance* [7.3.14.2]
- *Retail Sales Displays for "Consumer Fireworks"* shall be provided in compliance with 7.3.15.1 through 7.3.15.7 inclusive.
- *Display and Handling*; not less than 50% 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. [7.3.20]
- *Multiple Tenant Buildings*; Where *NEW retail sales* are located herein, consumer fireworks retail sales shall be separated from the other tenants by 2-hour fire barriers and no openings. [7.4.4; CFRS Facilities only]

### **Retail Sales, Storage, & Display of Consumer Fireworks in Tents & Portable Structures**

- In addition to the requirements of the CFSC and NFPA 1124-2006 CT Regulation 29-140; CT Tent & Portable Shelter Code is applicable.

Sec. 29-140-1b. The Connecticut Tent and Portable Shelter Code.

(b) Sections 29-140-1b to 29-140-8b, inclusive, shall apply to tents and portable shelters erected for less than 180 consecutive calendar days. Tents and portable shelters erected

for a longer period of time shall comply with the requirements of the State Building Code and the State Fire Safety Code, Section 29-252-1c and Sections 29-292-1d to 29-292-9d, inclusive, of the Regulations of Connecticut State Agencies, respectively.

Sec. 29-140-1b Definitions

- (1) Tent; textile material having metal or wood supports, with or without side panels, provides shelter to 100 or more persons or more than 1200 sq. ft.
- (2) Portable Shelter; pliable material shaped by air support, air inflation or tension, with or without side panels, provides shelter to 100 or more persons

Sec. 29-140-5b Police Protection

Sec. 29-140-6b Fire Protection

Sec. 29-140-7b adopted Standard; NFPA 102-1995 as amended by Sec. 29-140-8b

Should you have any questions regarding the information provided above, please contact the Designated Technical Assistant of the day, Terri Trenholm, Fire & Life Safety Specialist, John Doucette, Fire & Life Safety Specialist, or Joe Kingston, Fire & Life Safety Supervisor at the Office of State Fire Marshal, Bureau of Engineering via (860) 685-8350.

*Issues related to "fireworks" or excessive quantities and unsafe storage of "CT Consumer Fireworks" please feel free to contact Detective Mark Lamberty via 860-685-8460.*

If any emergencies arise please call the Department of Public Safety Message Center 24/7 via 1-800-842-0200.

tat/GIN 2010-03