

Frederick County Fire and Rescue Services Division

5370 Public Safety Place

Frederick, MD 21704

301-600-1479



USE OF TENTS

Guide



Office of the Fire Marshal

Guidelines for the Use of Tents

The following guidelines are based on the requirements of the State Prevention Code. Assistance in using these guidelines and meeting the requirements of the State Fire Prevention code is available from the Frederick County Fire / Rescue (FCFR) Fire Marshal's Office at:

Office: (301) 600-1479

Email: firemarshal@frederickcountymd.gov

Requirements and Inspections

- All tents shall be located a minimum of 10ft from any structure. The location and placement of a tent shall not block any exit from a structure. The placement shall not create a situation where the building occupants will exit through the tent to get to a safe area.
- A 10ft separation is required after every 100ft of tents. In addition, 2 rows of tents are may be set up back to back, however a 10ft separation is required before another row of tents may be set up.
- Tents and canopies shall not be set up inside a building unless approved by the Office of the Fire Marshal.
- The FCFR Fire Marshal's Office may inspect any tent to determine compliance with the State Fire Prevention Code.
- Any violations of the Maryland State Fire Prevention Code must be corrected prior to the use of the tent, or immediately if discovered during the event.
- Tents and canopies may require Land Use and other permits, check with the appropriate permit office prior to erecting to insure you are in compliance with local ordinances.
- Tents and canopies used for food service at public events require a food service permit from the Frederick County Health Department.
- Canopies or tents used for cooking shall not be occupied by the public. All cooking operations shall take place under a separate canopy.

Flame Resistance and Structure

- All canopy and tent materials shall comply with the flame resistance requirements set by the Office of the Fire Marshal.
- The tent or canopy shall have a label (see addendum A) affixed or an on-site certification stating that the tent complies with NFPA 701. The on-site certification must identify the make and model of the tent along with the certifying testing agency (see addendum B). These certificates should be available from the tent supplier.
- Tent suppliers must be able to certify that tents have been erected in accordance with manufacturer recommendations, industry standards, and code requirements.

Floor Coverings

- The area enclosed by any tent and not less than 10 feet outside of such tent, must be cleared of all flammable or combustible material or vegetation. The premises must be kept free from such flammable or combustible materials during the period for which the area is used.
- No hay, straw, shavings, or similar combustible materials are permitted within any tent unless they have been treated to make them flame retardant. A certificate or other proof of approval by a testing laboratory indicating that the material has been properly treated is acceptable as evidence. A copy of certificates must be provided to the FCFR Fire Marshal's Office prior to placing the material within a tent. These certificates are available from the material manufacturer or supplier (see addendum C).

Exits and Occupant Load for Enclosed Tents

- Tents that have sides attached and rolled up are capable of being enclosed. Thus they must meet these requirements even if it is intended for the tent to remain unenclosed during the event.
- The number of separate exits required for enclosed tents is based on the floor area of the tent. The maximum number of occupants, called the occupant load, is also based on the floor area (sq. ft.) of the tent / 7.

<u>Occupant Load (floor area of tent)</u>	<u>Number of Exits (minimum)</u>
49 (343 sq. ft.) or less	1
between 50 (350 sq. ft.) and 499 (3,493 sq. ft.)	2
between 500 (3,500 sq. ft.) and 999 (6,993 sq. ft.)	3
more than 1000 (7,000 sq. ft.)	4 (more exits may be needed)

- The occupant load is decreased when tables and chairs are used (banquet style) – the number of required exits remains the same because exits are based on floor area. The following calculation will determine the occupant load with tables and chairs:

net square footage of tent floor area / 15 = occupant load with tables and chairs

Example: The number of occupants allowed, with tables and chairs, in a 50' X50' tent with a 10' X20' stage.

2,500 square feet (floor area) – 200 square feet (stage area) / 15 = 153 persons

PLEASE NOTE: These calculations are for planning purposes only and do not represent a legal capacity. The FCFR Fire Marshal's Office will provide legal capacities based on submitted set-up plans.

- Each exit must be provided with an exit sign. The word "EXIT" must be plainly legible in letters at least 6 inches high and with strokes not less than 3/4 inch wide. If the tent is to be occupied after sunset, emergency lighting must be provided. In most cases, the tent company can provide exit signs and emergency lighting.
- Tents with an occupant load of 50 to 250 shall have 1 certified crowd manager on duty and 1 additional crowd manager for each additional 250 occupants once you exceed 250 occupants. Contact the Fire Marshal's for information on obtaining certification.

Exit Requirements for All Tents

- The minimum width of an exit must not be less than a 32 inch clear opening.
- Guy wires or guy ropes must not cross an exit at a height of less than 7 feet.
- Where tents are placed near fences or other obstructions, a clear exit path must be maintained to an area sufficiently away from the tent.
- Tent stakes must be railed off, capped, or covered.

Fire Protection

- One portable fire extinguisher (dry chemical ABC type) must be furnished at each exit of an enclosed tent. Minimum size is 2-A:10-BC, with additional requirements for cooking under tents. The sponsor of the event using the tent is responsible for ensuring that fire extinguishers are provided.
- Smoking is prohibited in any tent.
- Pyrotechnics, open flames (including use of sterno and other food warming devices), and cooking equipment must be approved in advance by the FCFR Fire Marshal's Office. Commercial cooking equipment such as grills and fryers, when used within a tent occupied by the public, must meet the same requirements for indoor commercial kitchens (i.e., proper ventilation, fire suppression systems).

Electrical

- The electrical system and equipment must be isolated from the public by proper elevation or guarding. All electrical fuses and switches must be enclosed in approved enclosures. Cables on the ground in areas travel by the public must be placed in trenches or protected by approved covers (yellow jacket etc.).
- All electrical systems must be properly grounded.
- Generators must be placed so that exhaust fumes do not enter tents and be at least 5 feet from the tents.
- Electrical installations must comply with the National Electrical Code (NFPA 70).

Heating Systems

- Only heating devices labeled by a recognized testing laboratory, i.e. UL, shall be used.
- The heating system shall be installed in accordance with its listing.
- Electrical heating units used inside a tent shall be approved by the Office of the Fire Marshal.
- Fuel fired devices shall be located on the exterior of the tent and air ducted into the tent.

Propane

- All propane tanks shall be labeled.
- All propane tanks shall be secured in the upright position and no closer than 5ft from the tent.

Applicable Standards of the State Fire Prevention Code

NFPA 1, *Fire Prevention Code*

NFPA 101, *Life Safety Code*

NFPA 102, *Standard for Grandstands, Folding & Telescopic Seating, Tents & Membrane Structures*

NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*

NFPA 70, *National Electrical Code*

Addendum A

Sample of sewn in Tent Label

WARNING!

**KEEP ALL FLAME AND HEAT SOURCES
AWAY FROM THE FABRIC OF THIS PRODUCT**

This item is made with flame resistant fabric that meets CPAI-84 Sec. 6/ULCS109, NFPA 701 fire standard specifications. **IT IS NOT FIRE PROOF**. The fabric will burn if left in continuous contact with any flame. The application of any foreign substances to this fabric may render the flame retardant properties ineffective.



Addendum B

Sample Flame Certificates

Fire Certificate

Certificate of Flame Resistance

REGISTERED APPLICATION NUMBER



ISSUED BY
ACE CANVAS & TENT CORPORATION
RONKONKOMA, NEW YORK 11779

MANUFACTURERS OF THE FINISHED TENT PRODUCTS DESCRIBED HEREIN

Date of Manufacture

This is to certify that the materials described have been flame-retardant treated (or are inherently nonflammable) and were supplied to:

NAME: _____

CITY _____ STATE _____

Certification is hereby made that:
The articles described on this Certificate have been treated with a flame-retardant approved chemical and that the application of said chemical was done in conformance with California Fire Marshall Code, equal to or exceeds NFPA 701, CPAI 84 _____

Method of application: _____

Type, color and weight of canvas/vinyl: _____

Description of item certified: _____

Flame Retardant Process Used Will Not Be Removed By Washing And Is Effective For The Life Of The Fabric

Name of Applicator of Flame Resistant Finish

TENT DEPARTMENT - ACE CANVAS & TENT CORPORATION

FLAME RETARDANT COMPLIANCE

This certifies that the fabrics used in the manufacturing of
IMPACT INSTANT CANOPIES AND EXPODOMES BY IMPACT
meet the CPAI-84 / ULC S109 & NFPA 701
Flame Retardancy Standards, based on testing data from
Korea Textile Inspection & Testing Institute.



eXpodome
by Impact

Date: May 16, 2007

Korea Textile Inspection & Testing Institute
Director General
Kyu Huh

Kyu Huh
Director General - Kyu Huh



Addendum C

Sample Flame Treatment Certificate

Certificate of Flame Resistance



REGISTERED FABRIC
OR
CONCERN NUMBER

G.A.-1296.01

ISSUED BY

PALAPA KINGS INC.
"Take a permanent vacation"

Date treated or manufactured

11-20-98

This is to certify that the materials here described have been flame retardant treated (or are inherently nonflammable).

For City your restaurant or hotel Address 123 Main Street
City Anytown, USA State Enter the State of the Individual or Company.

Certification is hereby made that: (check "a" or "b")

- (a) The articles described on this certificate have been treated with a flame retardant chemical approved and registered by the State Fire Marshal and that the application of said chemical was done in conformance with the laws of the state of California and the Rules and Regulations of the State Fire Marshal.

Name of Chemical Used Firextra 238 Chem. Reg. No. C-163.02
Method of Application Spray

- (b) The articles described on this certificate are made from a flame resistant fabric or material registered and approved by the state fire marshal for such use.

Trade name of flame-resistant fabric or material used: _____ Reg. No. _____

The Flame Retardant Process Used will not be removed by washing

Glenn Smith By: _____ Vice President
Name of Applicator or Production Superintendent Name Title

Customer Order No.:	Enter the Customers Order Number	Customer Invoice No.:	Enter the Customers Invoice Number.
Color:	Enter the Color.	Size/Type:	Enter the Size/Type.
Date Processed:	Enter the Date Processed.		

Click OK to continue