

## SUNY Fredonia Tent/Canopy Application and Permit Form

|   |  |
|---|--|
| Applicant's Name:<br><br>(Applicant will be the primary contact for this project)   | Date:<br>Department:   |
| Phone Number:<br>Fax Number:<br>E-mail:   | Contracted Tent Provider:  |
| Date(s) of Event:<br>Date to be Erected:<br>Date to be Removed:   | <input type="checkbox"/> Tent <input type="checkbox"/> Canopy (check one)<br>Number of Tents/Canopies:<br>Size of Tents/Canopies (example: 10 ft x 10 ft): |
| Event Time: From ____ <input type="checkbox"/> AM <input type="checkbox"/> PM   TO ____ <input type="checkbox"/> AM <input type="checkbox"/> PM<br><br>Food/Beverages Served:            Yes      No<br>Type of Cooking (include Fuel Type):<br>Power Source(s): <input type="checkbox"/> Premises (local electric) <input type="checkbox"/> Generator<br>Heating: <input type="checkbox"/> Electric <input type="checkbox"/> Propane <input type="checkbox"/> None | Anticipated Occupancy (each):<br><br>Location(s):  |

**Required Submittals with this Application:**

Fire Resistance: A certificate or other proof of approval by a testing laboratory is acceptable as evidence of the required fire resistance.

This form must be completed and returned to the Code Compliance Manager (Facilities Planning Office) 10 business days prior to the event. Applicant understands that all arrangements for program support (electrical, stage, tables, labor ...) must be made by the sponsoring organization. Applicant further understands that tents must be available for inspection by Environmental Health and Safety Code Coordinator prior to the scheduled event and that the applicant must arrange to have all safety requirements met at the time of inspection. This approved tent/canopy permit must also be posted at the tent/canopy location.

Applicant hereby represents that he/she has made a full and complete disclosure of all information which might be pertinent to the university's consideration of this Application and that all of the above statements and information are true and correct. Applicant further agrees to observe all university policies and regulations. See SUNY Fredonia Guidelines for the Use of Tents/Canopy online at [www.fredonia.edu/admin/cfm](http://www.fredonia.edu/admin/cfm) or [www.fredonia.edu/admin/envhealth](http://www.fredonia.edu/admin/envhealth). you can also request these guidelines by contacting Facilities Planning at 673-3722 or Environmental Health & Safety (EH&S) at 673-3796.

After all the above information is provided, submit the completed form to Facilities Planning, SUNY Fredonia, Hendrix Hall, Fredonia, New York 14063. Once the permit has been approved, all correspondence related to requirements and inspection shall be directed to the attention of EH&S at 673-3796.

**Facilities Planning Use Only**

Permit Approved with Restrictions: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Permit Approved                       Permit Not Approved                       Permit Not Required

Code Compliance Manager Signature (Signature Required for Approval):

\_\_\_\_\_ Date: \_\_\_\_\_

# SUNY Fredonia

## Guidelines for the Use of Tent/Canopy

The following guidelines are based on the requirements of SUNY Fredonia for the use of tents/canopies on any of its properties. Assistance in using these guidelines and meeting the requirements is available from the Environmental Health & Safety's (EH&S) Code Coordinator.

716 673-3796

### Inspection

The EH&S's Code Coordinator shall inspect any tent/canopy to determine compliance with this guideline.

Any violations of the NYS Fire Prevention and Building Code must be corrected prior to the use of the tent, or immediately if discovered during the event.

### Flame Resistance and Structure

All tent/canopy fabric must be flame resistant.

A certificate or other proof of approval by a testing laboratory is acceptable as evidence of the required fire resistance. A copy of the certificate must be provided to EH&S Office and Code Coordinator upon request. These certificates should be available from the tent/canopy supplier.

Tent/canopy suppliers must be able to certify that tents have been erected in accordance with manufacturer recommendations, industry standards, and code requirements.

### Floor Covering

The area enclosed by any tent and not less than 10 feet outside of such tent/canopy must be cleared of all flammable or combustible material or vegetation. Prior to erecting the tent 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 EH&S office and the Code Coordinator prior to placing the material within a tent. These certificates are available from the material manufacturer or supplier.

### Exits and Occupant Load for Enclosed Tents

Tents that have sides attached and rolled up or are capable of being enclosed 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 of the tent.

| <b><u>Occupant Load<br/>(floor area of tent)<br/>1</u></b> | <b><u>Number of Exits<br/>(minimum)</u></b> | <b><u>Minimum<br/>width/exit (IN)</u></b> |
|--|---|---|
| 10 to 100  | 2   | 72  |
| 200 to 499   | 3   | 72  |
| 500 to 999   | 4   | 96  |
| 1,000 to 1,999   | 5   | 120                                       |

<sup>1</sup> based on 7 sq ft/person

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 calculations 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' x 50' tent with a 10' x 20' stage.

$$2,500 \text{ square feet (floor area)} - 200 \text{ square feet (stage area)} / 15 = 153 \text{ persons}$$

**PLEASE NOTE:** These calculations are for planning purposes only and do not represent a legal capacity. The EH&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.

**Exit Requirements for All Tents**

The minimum width of an exit must not be less than 36 inches.

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. The University sponsor for the event using the tent is responsible for ensuring that fire extinguishers are provided. If necessary, arrangements for portable fire extinguishers may be made by contacting the EH&S Office at (716) 673-3769.

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 EH&S Office. Commercial cooking equipment such as grills and broilers, when used within a tent, 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 traveled by the public must be placed in trenches or protected by approved covers (yellow jackets etc.).

All electrical systems must be properly grounded.

Generators must be placed so that exhaust fumes do not enter tents.

**Permit**

All Tent structures require a building permit. The permit process shall be submitted per the SUNY Fredonia Building Permit Process.

Submit a SUNY Fredonia Tent/Canopy Application and Permit Form to the Facilities Planning Office (Code Compliance Manager) with a copy to EH&S (Code Coordinator). The Code Compliance Manager will issue a permit after review and return to applicant with a copy to EH&S.

**Refer to Fire Code of New York State 2007 (see below) for additional requirements and regulations.**

# Fire Code of New York State 2007

## CHAPTER F24 TENTS, CANOPIES AND OTHER MEMBRANE STRUCTURES

### §F2401 GENERAL

**§F2401.1 Scope.** Tents, canopies and membrane structures shall comply with this chapter. The provisions of §F2403 are applicable only to temporary membrane structures. The provisions of §F2404 are applicable to temporary and permanent membrane structures.

### §F2402 DEFINITIONS

**§F2402.1 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

**AIR-SUPPORTED STRUCTURE.** A structure wherein the shape of the structure is attained by air pressure, and occupants of the structure are within the elevated pressure area.

**CANOPY.** A structure, enclosure or shelter constructed of fabric or pliable materials supported by any manner, except by air or the contents it protects, and is open without sidewalls or drops on 75 percent or more of the perimeter.

**MEMBRANE STRUCTURE.** An air-inflated, air-supported, cable or frame-covered structure as defined by the *Building Code of New York State* and not otherwise defined as a tent or canopy. See Chapter 31 of the *Building Code of New York State*.

**TENT.** A structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

### §F2403 TEMPORARY TENTS, CANOPIES AND MEMBRANE STRUCTURES

**§F2403.1 General.** All temporary tents, canopies and membrane structures shall comply with this section.

**§F2403.2 Approval required.** Tents and membrane structures having an area in excess of 200 square feet (19 m<sup>2</sup>) and canopies in excess of 400 square feet (37 m<sup>2</sup>) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the code enforcement official.

**Exceptions:**

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies open on all sides which comply with all of the following:
  - 2.1. Individual canopies having a maximum size of 700 square feet (65 m<sup>2</sup>).
  - 2.2. The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m<sup>2</sup>) total.
  - 2.3. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.

**§F2403.3 Place of assembly.** For the purposes of this chapter, a place of assembly shall include a circus, carnival, tent show, theater, skating rink, dance hall or other place of assembly in or under which persons gather for any purpose.

**§F2403.4 Use period.** Temporary tents, air-supported, air-inflated or tensioned membrane structures and canopies shall be used for a period of not more than 180 days within a 12-month period on a single premise.

**§F2403.5 Construction documents.** A detailed site and floor plan for tents, canopies or membrane structures with an occupant load of 50 or more shall be provided with each application for approval. The tent, canopy or membrane structure floor plan shall indicate details of the means of egress facilities, seating capacity, arrangement of the seating and location and type of heating and electrical equipment.

**§F2403.6 Inspections.** The entire tent, air-supported, air-inflated or tensioned membrane structure system shall be inspected at regular intervals, but not less than two times per permit use period, by the permittee, owner or agent to determine that the installation is maintained in accordance with this chapter.

**Exception:** Periods of less than 30 days.

**§F2403.6.1 Inspection report.** An inspection report shall be provided and shall consist of maintenance, anchors and fabric inspections.

**§F2403.7 Access, location and parking.** Access location and parking for temporary tents, canopies and membrane structures shall be in accordance with this section.

**§F2403.7.1 Access.** Fire apparatus access roads shall be provided in accordance with §F503.

**§F2403.7.2 Location.** Tents, canopies or membrane structures shall not be located within 20 feet (6096 mm) of lot lines, buildings, other tents, canopies or membrane structures, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure, tent or canopy.

**Exceptions:**

1. Separation distance between membrane structures, tents and canopies not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet (1394 m<sup>2</sup>).

2. Membrane structures, tents or canopies need not be separated from buildings when all of the following conditions are met:

2.1. The aggregate floor area of the membrane structure, tent or canopy shall not exceed 10,000 square feet (929 m<sup>2</sup>).

2.2. The aggregate floor area of the building and membrane structure, tent or canopy shall not exceed the allowable floor area including increases as indicated in the *Building Code of New York State*.

2.3. Required means of egress provisions are provided for both the building and the membrane structure, tent or canopy, including travel distances.

2.4. Fire apparatus access roads are provided in accordance with §F503.

**§F2403.7.3 Location of structures in excess of 15,000 square feet in area.** Membrane structures having an area of 15,000 square feet (1394 m<sup>2</sup>) or more shall be located not less than 50 feet (15 240 mm) from any other tent or structure as measured from the sidewall of the tent or membrane structure unless joined together by a corridor.

**§F2403.7.4 Connecting corridors.** Tents or membrane structures are allowed to be joined together by means of corridors. Exit doors shall be provided at each end of such corridor. On each side of such corridor and approximately opposite each other, there shall be provided openings not less than 12 feet (3658 mm) wide.

**§F2403.7.5 Fire break.** An unobstructed fire break passageway or fire road not less than 12 feet (3658 mm) wide and free from guy ropes or other obstructions shall be maintained on all sides of all tents, canopies and membrane structures unless otherwise approved by the code enforcement official.

**§F2403.8 Anchorage required.** Tents, canopies or membrane structures and their appurtenances shall be adequately roped, braced and anchored to withstand the elements of weather and prevent against collapsing. Documentation of structural stability shall be furnished to the code enforcement official on request.

**§F2403.9 Temporary air-supported and air-inflated membrane structures.** Temporary air-supported and air-inflated membrane structures shall be in accordance with this section.

**§F2403.9.1 Door operation.** During high winds exceeding 50 miles per hour (80 kph) or in snow conditions, the use of doors in air-supported structures shall be controlled to avoid excessive air loss. Doors shall not be left open.

**§F2403.9.2 Fabric envelope design and construction.** Air-supported and air-inflated structures shall have the design and construction of the fabric envelope and the method of anchoring in accordance with Architectural Fabric Structures Institute ASI 77.

**§F2403.9.3 Blowers.** An air-supported structure used as a place of assembly shall be furnished with not less than two blowers, each of which has adequate capacity to maintain full inflation pressure with normal leakage. The design of the blower shall be so as to provide integral limiting pressure at the design pressure specified by the manufacturer.

**§F2403.9.4 Auxiliary power.** Places of public assembly for more than 200 persons shall be furnished with either a fully automatic auxiliary engine-generator set capable of powering one blower continuously for 4 hours, or a supplementary blower powered by an internal combustion engine which shall be automatic in operation.

**§F2403.10 Seating arrangements.** Seating in tents, canopies or membrane structures shall be in accordance with Chapter F10.

**§F2403.11 Means of egress.** Means of egress for temporary tents, canopies and membrane structures shall be in accordance with this section.

**§F2403.11.1 Distribution.** Exits shall be spaced at approximately equal intervals around the perimeter of the tent, canopy or membrane structure, and shall be located such that all points are 100 feet (30 480 mm) or less from an exit.

**§F2403.11.2 Number.** Tents, canopies or membrane structures or a usable portion thereof shall have at least one exit and not less than the number of exits required by Table F2403.12.2 <Table F2403.11.2>. The widths of means of egress required by Table F2403.12.2 <Table F2403.11.2> shall be divided approximately equally among the separate means of egress. The total width of means of egress in inches (mm) shall not be less than the total occupant load served by a means of egress multiplied by 0.2 inches (5 mm) per person.

**TABLE F2403.11.2  
MINIMUM NUMBER OF MEANS OF EGRESS AND MEANS OF EGRESS WIDTHS FROM  
TEMPORARY MEMBRANE STRUCTURES, TENTS AND CANOPIES**

| OCCUPANT LOAD           | MINIMUM<br>NUMBER<br>OF MEANS<br>OF EGRESS | MINIMUM WIDTH<br>OF EACH MEANS<br>OF EGRESS (inches) | MINIMUM WIDTH<br>OF EACH MEANS<br>OF EGRESS (inches) |
|-------------------------|--|--|--|
|                         |  | Tent or canopy                                       | Membrane structure                                   |
| 10 to 199               | 2  | 72   | 36   |
| 200 to 499              | 3  | 72   | 72   |
| 500 to 999              | 4  | 96   | 72   |
| 1,000 to 1,999          | 5  | 120  | 96   |
| 2,000 to 2,999          | 6  | 120  | 96   |
| Over 3,000 <sup>a</sup> | 7  | 120  | 96   |

For SI: 1 inch = 25.4 mm.

a. When the occupant load exceeds 3,000, the total width of means of egress in inches shall not be less than the total occupant load multiplied by 0.2 inches per person.

**§F2403.11.3 Exit openings from tents.** Exit openings from tents shall remain open unless covered by a flame-resistant curtain. The curtain shall comply with the following requirements:

1. Curtains shall be free sliding on a metal support. The support shall be a minimum of 80 inches (2032 mm) above the floor level at the exit. The curtains shall be so arranged that, when open, no part of the curtain obstructs the exit.

2. Curtains shall be of a color, or colors, that contrasts with the color of the tent.

**§F2403.11.4 Doors.** Exit doors shall swing in the direction of exit travel. To avoid hazardous air and pressure loss in air-supported membrane structures, such doors shall be automatic closing against operating pressures. Opening force at the door edge shall not exceed 15 pounds (7 kg).

**§F2403.11.5 Aisle.** The width of aisles without fixed seating shall be in accordance with the following:

1. In areas serving employees only, the minimum aisle width shall be 24 inches (610 mm) but not less than the width required by the number of employees served.

2. In public areas, smooth-surfaced, unobstructed aisles having a minimum width of not less than 44 inches (1118 mm) shall be provided from seating areas, and aisles shall be progressively increased in width to provide, at all points, not less than 1 foot (305 mm) of aisle width for each 50 persons served by such aisle at that point.

**§F2403.11.5.1 Arrangement and maintenance.** The arrangement of aisles shall be subject to approval by the code enforcement official and shall be maintained clear at all times during occupancy.

**§F2403.11.6 Exit signs.** Exits shall be clearly marked. Exit signs shall be installed at required exit doorways and where otherwise necessary to indicate clearly the direction of egress when the exit serves an occupant load of 50 or more.

**§F2403.11.6.1 Exit sign illumination.** Exit signs shall be of an approved self-luminous type or shall be internally or externally illuminated by fixtures supplied in the following manner:

1. Two separate circuits, one of which shall be separate from all other circuits, for occupant loads of 300 or less; or

2. Two separate sources of power, one of which shall be an approved emergency system, shall be provided when the occupant load exceeds 300. Emergency systems shall be supplied from storage batteries or from the on-site generator set, and the system shall be installed in accordance with Chapter 27 of the *Building Code of New York State*.

**§F2403.11.7 Means of egress illumination.** Means of egress shall be illuminated with light having an intensity of not less than 1 foot-candle (11 lux) at floor level while the structure is occupied. Fixtures required for means of egress illumination shall be supplied from a separate circuit or source of power.

**§F2403.11.8 Maintenance of means of egress.** The required width of exits, aisles and passageways shall be maintained at all times to a public way. Guy wires, guy ropes and other support members shall not cross a means of egress at a height of less than 8 feet (2438 mm). The surface of means of egress shall be maintained in an approved manner.

## **§F2404**

### **TEMPORARY AND PERMANENT TENTS, CANOPIES AND MEMBRANE STRUCTURES**

**§F2404.1 General.** All tents, canopies and membrane structures, both temporary and permanent, shall be in accordance with this section. Permanent tents, canopies and membrane structures shall also comply with the *Building Code of New York State*.

**§F2404.2 Flame-resistant treatment.** Before a permit is granted, the owner or agent shall file with the code enforcement official a certificate executed by an approved testing laboratory, certifying that the tents, canopies and membrane structures and their appurtenances, sidewalls, drops and tarpaulins, floor coverings, bunting, combustible decorative materials and effects, including sawdust when used on floors or passageways, shall be composed of flame-resistant material or shall be treated with a flame retardant in an approved manner and meet the requirements for flame resistance as determined in accordance with NFPA 701, and that such flame resistance is effective for the period specified by the permit.

**§F2404.3 Label.** Membrane structures, tents or canopies shall have a permanently affixed label bearing the identification of size and fabric or material type.



**§F2404.4 Certification.** An affidavit or affirmation shall be submitted to the code enforcement official and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to the following information relative to the flame resistance of the fabric:

1. Names and address of the owners of the tent, canopy or air-supported structure.
2. Date the fabric was last treated with flame-resistant solution.
3. Trade name or kind of chemical used in treatment.
4. Name of person or firm treating the material.
5. Name of testing agency and test standard by which the fabric was tested.

**§F2404.5 Combustible materials.** Hay, straw, shavings or similar combustible materials shall not be located within any tent, canopy or membrane structure containing an assembly occupancy, except the materials necessary for the daily feeding and care of animals. Sawdust and shavings utilized for a public performance or exhibit shall not be prohibited provided the sawdust and shavings are kept damp. Combustible materials shall not be permitted under stands or seats at any time. The areas within and adjacent to the tent or air-supported structure shall be maintained clear of all combustible materials or vegetation that could create a fire hazard within 20 feet (6096 mm) of the structure. Combustible trash shall be removed at least once a day from the structure during the period the structure is occupied by the public.

**§F2404.6 Smoking.** Smoking shall not be permitted in tents, canopies or membrane structures. Approved "No Smoking" signs shall be conspicuously posted in accordance with §F310.

**§F2404.7 Open or exposed flame.** Open flame or other devices emitting flame, fire or heat or any flammable or combustible liquids, gas, charcoal or other cooking device or any other unapproved devices shall not be permitted inside or located within 20 feet (6096 mm) of the tent, canopy or membrane structures while open to the public unless approved by the code enforcement official.

**§F2404.8 Fireworks.** Fireworks shall not be used within 100 feet (30 480 mm) of tents, canopies or membrane structures.

**§F2404.9 Spot lighting.** Spot or effect lighting shall only be by electricity, and all combustible construction located within 6 feet (1829 mm) of such equipment shall be protected with approved noncombustible insulation not less than 9.25 inches (235 mm) thick.

**§F2404.10 Safety film.** Motion pictures shall not be displayed in tents, canopies or membrane structures unless the motion picture film is safety film.

**§F2404.11 Clearance.** There shall be a minimum clearance of at least 3 feet (914 mm) between the fabric envelope and all contents located inside the tent or membrane structure.

**§F2404.12 Portable fire extinguishers.** Portable fire extinguishers shall be provided as required by §F906.

**§F2404.13 Fire protection equipment.** Fire hose lines, water supplies and other auxiliary fire equipment shall be maintained at the site in such numbers and sizes as required by the code enforcement official.

**§F2404.14 Occupant load factors.** The occupant load allowed in an assembly structure, or portion thereof, shall be determined in accordance with Chapter F10.

**§F2404.15 Heating and cooking equipment.** Heating and cooking equipment shall be in accordance with this section.

**§F2404.15.1 Installation.** Heating or cooking equipment, tanks, piping, hoses, fittings, valves, tubing and other related components shall be installed as specified in the *Mechanical Code of New York State* and the *Fuel Gas Code of New York State*, and shall be approved by the code enforcement official.

**§F2404.15.2 Venting.** Gas, liquid and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified in the *Fuel Gas Code of New York State* and the *Mechanical Code of New York State*. Such vents shall be equipped with approved spark arresters when required. Where vents or flues are used, all portions of the tent, canopy or membrane structure shall be not less than 12 inches (305 mm) from the flue or vent.

**§F2404.15.3 Location.** Cooking and heating equipment shall not be located within 10 feet (3048 mm) of exits or combustible materials.

**§F2404.15.4 Operations.** Operations such as warming of foods, cooking demonstrations and similar operations that use solid flammables, butane or other similar devices which do not pose an ignition hazard, shall be approved.

**§F2404.15.5 Cooking tents.** Tents where cooking is performed shall be separated from other tents, canopies or membrane structures by a minimum of 20 feet (6096 mm).

**§F2404.15.6 Outdoor cooking.** Outdoor cooking that produces sparks or grease-laden vapors shall not be performed within 20 feet (6096 mm) from a tent, canopy or membrane structure.

**§F2404.15.7 Electrical heating and cooking equipment.** Electrical cooking and heating equipment shall comply with Chapter 27 of the *Building Code of New York State*.

**§F2404.16 LP-gas.** The storage, handling and use of LP-gas and LP-gas equipment shall be in accordance with this section.

**§F2404.16.1 General.** LP-gas equipment such as tanks, piping, hoses, fittings, valves, tubing and other related components shall be approved and in accordance with Chapter F38 and with the *Fuel Gas Code of New York State*.

**§F2404.16.2 Location of containers.** LP-gas containers shall be located outside. Safety release valves shall be pointed away from the tent, canopy or membrane structure.

**§F2404.16.2.1 Containers 500 gallons or less.** Portable LP-gas containers with a capacity of 500 gallons (1893 L) or less shall have a minimum separation between the container and structure not less than 10 feet (3048 mm).

**§F2404.16.2.2 Containers more than 500 gallons.** Portable LP-gas containers with a capacity of more than 500 gallons (1893 L) shall have a minimum separation between the container and structures not less than 25 feet (7620 mm).

**§F2404.16.3 Protection and security.** Portable LP-gas containers, piping, valves and fittings which are located outside and are being used to fuel equipment inside a tent, canopy or membrane structure shall be adequately protected to prevent tampering, damage by vehicles or other hazards and shall be located in an approved location. Portable LP-gas containers shall be securely fastened in place to prevent unauthorized movement.

**§F2404.17 Flammable and combustible liquids.** The storage of flammable and combustible liquids and the use of flammable-liquid-fueled equipment shall be in accordance with this section.

**§F2404.17.1 Use.** Flammable-liquid-fueled equipment shall not be used in tents, canopies or membrane structures.

**§F2404.17.2 Flammable and combustible liquid storage.** Flammable and combustible liquids shall be stored outside in an approved manner not less than 50 feet (15 240 mm) from tents, canopies or membrane structures. Storage shall be in accordance with Chapter 34.

**§F2404.17.3 Refueling.** Refueling shall be performed in an approved location not less than 20 feet (6096 mm) from tents, canopies or membrane structures.

**§F2404.18 Display of motor vehicles.** Liquid-and gas-fueled vehicles and equipment used for display within tents, canopies or membrane structures shall be in accordance with this section.

**§F2404.18.1 Batteries.** Batteries shall be disconnected in an appropriate manner.

**§F2404.18.2 Fuel systems.** Vehicles or equipment shall not be fueled or defueled within the tent, canopy or membrane structure.

**§F2404.18.2.1 Quantity limit.** Fuel in the fuel tank shall not exceed one-quarter of the tank capacity or 5 gallons (19 L), whichever is less.

**§F2404.18.2.2 Inspection.** Fuel systems shall be inspected for leaks.

**§F2404.18.2.3 Closure.** Fuel tank openings shall be locked and sealed to prevent the escape of vapors.

**§F2404.18.3 Location.** The location of vehicles or equipment shall not obstruct means of egress.

**§F2404.18.4 Places of assembly.** When a compressed natural gas (CNG) or liquefied petroleum gas (LP-gas) powered vehicle is parked inside a place of assembly, all the following conditions shall be met:

1. The quarter-turn shutoff valve or other shutoff valve on the outlet of the CNG or LP-gas container shall be closed and the engine shall be operated until it stops. Valves shall remain closed while the vehicle is indoors.
2. The hot lead of the battery shall be disconnected.
3. Dual-fuel vehicles equipped to operate on gasoline and CNG or LP-gas shall comply with this section and §F2404.18.1 through §F2404.18.5.3 for gasoline-powered vehicles.

**§F2404.18.5 Competitions and demonstrations.** Liquid-and gas-fueled vehicles and equipment used for competition or demonstration within a tent, canopy or membrane structure shall comply with §F2404.18.5.1 through §F2404.18.5.3.

**§F2404.18.5.1 Fuel storage.** Fuel for vehicles or equipment shall be stored in approved containers in an approved location outside of the structure in accordance with §F2404.17.2.

**§F2404.18.5.2 Fueling.** Refueling shall be performed outside of the structure in accordance with §F2404.17.3.

**§F2404.18.5.3 Spills.** Fuel spills shall be cleaned up immediately.

**§F2404.19 Separation of generators.** Generators and other internal combustion power sources shall be separated from tents, canopies or membrane structures by a minimum of 20 feet (6096 mm) and shall be isolated from contact with the public by fencing, enclosure or other approved means.

**§F2404.20 Standby personnel.** When required by the code enforcement official, it is essential for public safety in a tent, canopy or membrane structure used as a place of assembly or any other use where people congregate, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall employ one or more qualified persons, as required and approved, to remain on duty during the times such places are open to the public, or when such activity is being conducted.

Before each performance or the start of such activity, standby personnel shall keep diligent watch for fires during the time such place is open to the public or such activity is being conducted and take prompt measures for extinguishment of fires that occur and assist in the evacuation of the public from the structure.

There shall be trained crowd managers or crowd manager supervisors at a ratio of one crowd manager/supervisor for every 250 occupants, as approved.

**§F2404.21 Vegetation removal.** Combustible vegetation shall be removed from the area occupied by a tent, canopy or membrane structure, and from areas within 30 feet (9144 mm) of such structures.

**§F2404.22 Waste material.** The floor surface inside tents, canopies or membrane structures and the grounds outside and within a 30-foot (9144 mm) perimeter shall be kept clear of combustible waste. Such waste shall be stored in approved containers until removed from the premises.