



SUNY OSWEGO FACILITY SERVICES
ENVIRONMENTAL HEALTH AND SAFETY

Tent & Membrane Structures Requirements

Procedure Number EHS-T&MSP	Revision Number 01	Effective Date 10/01/2018
Approval Signature J. Mitchell Fields AVP- Facilities Services 		Approval Date 

1. PURPOSE

SUNY Oswego strives to keep all students, staff and visitors safe while at our campus. So that we can comply with the law, we have summarized requirements for tents and canopies, as required by the Fire Code of NYS 2015, Chapter 31.

2. SCOPE

This procedure must be followed any time a tent, canopy or other membrane structure is to be erected at our campus.

3. DEFINITIONS

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 side walls or drops on 75 percent or more of the perimeter.

Membrane Structure – an air-inflated, air-supported, cable or frame-covered structure and not defined as a tent.

Permit - a written document prepared by the Fire Marshal or designee issued to Campus Personnel to allow the set up and use of a tent or canopy for a specified amount of time. Permits may be revoked if permit conditions are not followed.

Tent - a structure, enclosure or shelter constructed of fabric or pliable materials supported by any manner, except by air or the contents it protects.

Crowd Managers – trained crowd managers will be present as approved by the Fire Marshal or designee.

4. REGULATORY REQUIREMENTS

Permit requirement - is required for tents, membrane structures and canopies >400 square feet. Structures shall not be erected prior to obtaining the approval of the Fire Marshal or designee and a permit.

Construction documents - a detailed site and floor plan for tents and canopies with an occupancy load of 50 or more shall be provided with each application for approval. The floor plan shall include details of means of egress facilities, seating capacity, arrangement of the seating and location and type of heating and electrical equipment.

Inspections – Tent, membrane structures and canopies shall be inspected at regular intervals and at least 2 times during the permit period. *(Exception: if the tent erection is in use less than 30 days, 1 inspection is required)*

Inspection report - An inspection report will be generated by the Fire Marshal or designee.

Location – Tents, membrane structures and canopies must not be located within 20 feet of: lot lines, buildings, other tents and canopies, parked vehicles or other internal combustion engines. For the purposes of required distances, support ropes and guy wires shall be considered as part of the tent or canopy. *(Exception 1, separation distance between structures not used for cooking is not required if aggregate floor area is less than 15,000 square feet) (Exception 2, tents and canopies need not be separated from buildings when the aggregate floor areas are <10,000 square feet and means of egress are provided for both building(s) and temporary structures)*

Connecting corridors - Tents may have connecting corridors provided they are equipped with at least 2 exit doors.

Fire Break - On all sides of tent or canopy, there must be an unobstructed passageway or fire road not less than 12 feet wide free from guy wires, ropes and other obstructions to allow for fire department access unless approved by Fire Marshal or designee.

Anchorage required - Tents and canopies 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 Fire Marshal or designee on request. If tent stakes or pins will be driven into the ground for stability, contact Facilities Services Utilities, x3201, 7 business

days (but not more than 10) prior to the event so a stake out can be performed to locate utility lines. NYS law requires that we contact Dig Safely NY prior to insertion of tent stakes or pins.

Seating arrangements - shall be in accordance with Chapter 10 (means of egress) of the Fire Code of NYS.

Means of egress - Exits shall be spaced at approximately equal intervals around the perimeter of the tent or canopy, and shall be located such that all points are 100 feet or less from an exit. The number of exits varies depending on the number of occupants.

Tents or canopies shall have at least one exit and not less than the number of exits required by Table 3103.12.2. 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. Exits shall remain open (uncovered) unless curtain material is flame resistant. Curtain MUST be a color that contrasts the color of the tent. Doors shall swing in the direction of exit travel (outward).

TABLE 3103.12.2 MINIMUM NUMBER OF EGRESS AND MEANS OF EGRESS WIDTHS FROM TEMPORARY MEMBRANE STRUCTURES AND TENTS (NYSFC 2015)

Occupant Load	Minimum Number of Means of Egress	Minimum Width of Each Means of Egress (inches) in Tent or Canopy
10 to 199	2	72
200 to 499	3	72
500 to 999	4	96

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. They shall be illuminated.

Aisle Width - In public areas, unobstructed aisles having a minimum width of not less than 44 inches shall be provided from seating areas, and aisles shall be progressively increased in width to provide, at all points, not less than 1 foot of aisle width for each 50 persons served by such aisle at that point. In employee only areas (cooking tent/canopy) minimum width is 24 inches.

Egress areas must be illuminated. Exits, exit passageways and aisle space must be maintained.

Flame propagation treatment - prior to permit issuance, the contractor shall furnish Fire Marshal or designee a certificate of documentation that the tent, canopy, sidewalls, floor coverings, etc. meet the flame propagation performance criteria of NFPA 701 or shall be treated with a flame retardant within 5 years of use (documentation required).

Certification - An affidavit or affirmation will be submitted to the Fire Marshal or designee and a copy retained on the premises on which the tent/canopy is located. The affidavit shall attest to the following information relative to the flame propagation performance criteria 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-retardant 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.

Combustible materials - Hay, straw, shavings or similar combustible materials shall not be allowed in any tent or canopy containing 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 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.

Smoking - smoking is not permitted in tents or canopies. "No Smoking" signs shall be posted.

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 of the tent or canopy while open to the public.

Fireworks - Fireworks shall not be used within 100 feet of tents or canopies.

Clearance - There must be a minimum clearance of at least 3 feet between the fabric envelope and all contents located inside the tent.

Portable fire extinguishers - Portable fire extinguishers shall be provided as required by the Fire Code. Environmental Health and Safety will provide extinguishers upon request.

Occupant load factors - The number of occupants shall not exceed those allowed in chapter 10 of the fire code of NYS and is based on size of tent/canopy and what setting is (e.g. standing only vs. table and chairs). An occupancy load sign shall be displayed in a conspicuous place near the main exit.

Heating Equipment - shall be allowed when used with solid fuel, butane and other similar devices if they do not pose an ignition hazard. Heating equipment shall not be located within 10

feet of exits or combustible materials. Liquid fuel shall not be used in tents, membrane structures or canopies.

Cooking tents/canopies - shall be at least 20 feet away from other tents. Similarly, outdoor cooking that produces sparks, flames or grease laden vapors must be separated from other tents by 20 feet. Liquid fuel shall not be used in tents, membrane structures or canopies.

Liquid propane gas (LPG) - may be used but tanks must be located outside the tent/canopy and separated by at least 10 feet (500 gallons propane or less) from the structure. Additionally, the tank(s) must be protected against traffic and tampering and must be secured in place to prevent movement (not freestanding).

Generators - Generators shall be located at least 20 feet away from the tent or canopy. No hot refueling is allowed, unit must cool down for 30 minutes before refueling can take place.

5. RESPONSIBILITIES

Campus Personnel - are obligated to submit the permit application 2 weeks prior to erection of tent and should be directed to Environmental Health and Safety/Fire Marshal or designee.

Fire Marshal or Designee - reviews construction documents; has authority to approve or disapprove a permit; performs safety inspections; has stop work/closure authority given by the State of NY per the NYS Fire Prevention and Building Code.

6. RECORD KEEPING

ALL tent applications, inspection reports and required documentation will be kept in Environmental Health and Safety for 5 years.

7. REFERENCES

Fire Code of New York State, 2015

8. APPENDICIES/FORMS

Appendix A: Tent & Membrane Structures Permit Application



Appendix A: Tent & Membranes Structures Permit Application

General

Event name:	Campus Dept. Sponsoring Activity:
Tent location:	Event date(s):
Person responsible for oversight of contractor:	Ph:
Back-up to the responsible person:	Ph:
Contractor company name:	Contact for contractor:

Tent/Membrane Structures or Canopy Detail and Use

Size of tent/canopy # 1 (sq. ft.)	Expected occupancy of tent/canopy 1 (# people)
Size of tent/canopy # 2 (sq. ft.)	Expected occupancy of tent/canopy 2 (# people)
Size of tent/canopy # 3 (sq. ft.)	Expected occupancy of tent/canopy 3 (# people)
Size of tent/canopy # 4 (sq. ft.)	Expected occupancy of tent/canopy 4 (# people)
How will tents be anchored?	
Will combustible materials be used or stored? Y N	
NFPA 701 flame retardant certification records attached? (required) Y N	
Open flame/heating devices used? Y N	
Will there be cooking or heating of food? Y N	
Propane used? Y N	
Generator(s) used? Y N	

Acknowledgement

I acknowledge that the Fire Marshal or designee has the authority to cancel this application and issued permit for unsafe or non-compliant code conditions. Additionally, I have received a copy of the SUNY Oswego Requirements for Tents and Membrane Structures. The permit provided by the Fire Marshal or designee shall remain posted.	
<u>Name:</u>	<u>Title:</u>
<u>Signature:</u>	<u>Date:</u>

The installation of tents and canopies shall be in compliance with Chapter 31 of the Fire Code of New York State, as well as any other applicable provisions governed by the building, electrical and mechanical codes.