

Temporary Tents – A Brief Overview of Building and Fire Code Requirements



The use of tents is becoming more predominant lately given the ongoing Covid-19 pandemic. This informational document has been developed in an effort to assist stakeholders by providing a brief overview of some of the code requirements applicable to tents. This informational document does not contain all the code requirements that may apply to a given project. The local building official should always be consulted prior to the installation of any tent.

Throughout this document, there are references to the “fire official”. If a locality in Virginia chooses to enforce the Statewide Fire Prevention Code (SFPC), they must appoint a local fire official, who will be responsible for enforcing the SFPC. On state owned property and in localities that have not appointed a local fire official to enforce the SFPC, the State Fire Marshal has the authority to enforce the SFPC, and is the “fire official” as referenced in the SFPC and this document.

Tent Definition

The 2015 Virginia Construction Code (VCC) defines the word “tent” as *“A structure, enclosure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.”*

Permit requirements

- In accordance with VCC Section 108.2, Item #4, a building permit is not required for *“Tents or air-supported structures, or both, that cover an area of 900 square feet (84 m²) or less, including within that area all connecting areas or spaces with a common means of egress or entrance, provided such tents or structures have an occupant load of 50 or less persons”*. However, a permit may be required by the building official for any tents, if located in a special flood hazard area; 2015 VCC, Section 108.2, Exception #2.
- Notwithstanding the above exception, as per the 2015 VCC, Section 108.2, structures exempted from the building permit requirements must comply with all the other applicable building code provisions.
- The fire official may also require an Operational Permit for a tent in accordance with Statewide Fire Prevention Code (SFPC), Section 107.2 and Table 107.2, with the following two (2) exceptions:
 1. Tents used exclusively for recreational camping purposes.
 2. Tents and air-supported structures that cover an area of 900 square feet (84 m²) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or less persons.

Note: The local building official and the fire official should be consulted to determine whether your project requires a building permit and/or an operational permit. In addition to the building and/or operational permit(s) issued by the building official and fire official, the local jurisdiction may require other types of permits; i.e. zoning permits. Always inquire with the applicable Departments before erecting a tent.

General

- Temporary tents are to be considered those tents erected for a period of less than 180 days; 2015 VCC, Section 3103.1.
- Pursuant to VCC Section 3103.1, *“Tents and other membrane structures erected for a period of less than 180 days shall comply with the International Fire Code”* (IFC).

Note: While Section 3103 of the IFC does specify certain permit requirements, such administrative provisions which impose different stipulations that those found in Chapter 1 of the VCC, are deleted and replaced by the requirements set forth in Chapter 1 of the VCC; 2015 VCC, Section 101.7.

Construction Documents

- Permit applications for tents with a proposed occupant load of 50 or more must be accompanied by a detailed site and floor plan to include such information as means of egress facilities, seating capacity, arrangement of seating and location of heating and electrical equipment. Please refer to the 2015 IFC Section 3103.6 for additional information.
- The local building official should be consulted regarding the extent and detail of construction documents required beyond the above site and floor plan.

Occupancy

Tents shall not be occupied prior to obtaining the final inspection approval and/or the certificate of occupancy, as applicable, in compliance with the 2015 VCC Sections 113 and 116 respectively.

Notes:

1. The local building official and fire official should be contacted regarding the minimum required inspections applicable to your building permit and operational permit, as applicable.
2. Once occupancy has been granted, the tent must 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 the applicable code provisions. Please refer to the 2015 IFC, Section 3103.7 for more detailed information.
3. Once occupancy has been granted by the building official, the fire official may inspect any structures for the purposes of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with firefighting operations, endanger life, or any violations of the provisions or the intent of the 2015 SFPC; 2015 SFPC, Section 109.1.

Location

- With some exceptions, tents are generally required to be located away from property lines, adjacent buildings, similar structures and parked vehicles or internal combustion engines. Please review the 2015 IFC, Section 3103.8 for specifics.
- Providing your local building official and fire official with a detailed site plan, which accurately identifies the aforementioned items, should aid with the review and approval of permit applications.

Means of egress

- Tents must have a minimum of one (1) exit. Two (2) exits are required for tents with an occupant load between 10 and 199 occupants. Please review the 2015 IFC, Table 3103.12.2, for the number of

exits required from tents with an occupant load greater than 199. The minimum width of each exit shall be 72 inches, or 0.2 inches per occupant, whichever is greater.

- Exits must be placed at approximately equal intervals around the perimeter of the tent; and must be located such that the travel distance from any point in the tent to an exit does not exceed 100 feet.
- Exit openings from tents must remain open unless covered with a flame-resistant curtain. If used, curtains must be free sliding on a metal support and of color(s) that contrasts with the color of the tent.
- Aisles utilized by employees only must be 24 inches in width; and aisles in public areas must be a minimum of 44 inches in width.
- Exits must be clearly marked. Exit signs shall be provided, as applicable, in accordance with the 2015 IFC, Section 3103.12.6.
- The means of egress components must be illuminated at all times while the tent is occupied. For specifics and electrical requirements please review IFC Section 3103.12.7.
- The means of egress must be maintained at all times in conformance with the applicable code provisions.

Materials

- Tents and their appurtenances; side-walls, drops and tarpaulins; floor coverings, bunting, and combustible decorative materials and effects must be composed of material meeting the flame propagation performance criteria of test Method 1 or Test Method 2, as appropriate, of NFPA 701. Alternatively, they must be treated with a flame retardant in an approved manner and meet the flame propagation performance criteria of aforementioned tests.
- Tents must have a permanently affixed label bearing the identification of size and fabric material type.
- With some exceptions, combustible materials, such as hay, straw, shavings or similar, are not allowed in tents containing an assembly occupancy. Please review IFC Section 3104.5 for additional information.

Prohibited activities

- Smoking is not permitted in tents. Approved “No Smoking” signs must be conspicuously posted.
- Open flames or other devices emitting flame, fire or heat are generally not allowed in tents.
- Use of fireworks is prohibited within 100 feet of tents.
- With the exception of safety film, the display of motion pictures is prohibited in tents.

Heating and cooking equipment

- Heating and cooking equipment and associated fittings, piping, valves, etc., must be installed in compliance with the applicable provisions of the 2015 International Mechanical Code, 2015 International Fuel Gas Code and/or 2014 National Electrical Code.
- Cooking and heating equipment must be located at least 10 feet away from exits or combustible materials.
- Tents with sidewalls or drops where cooking operations occur must be separated from other tents or membrane structures by not less than 20 feet.
- Outdoor cooking activities that produce sparks or grease-laden vapors are not allowed within 20 feet of a tent.

LP-Gas storage, handling and use

- In order to avoid vapors from infiltrating into the structure, LP-gas containers must be located outside; and the safety release valves must be pointed away from the tent.
- Portable LP-gas containers with a capacity of 500 gallons or less must be located a minimum of 10 feet away from tents. A minimum separation of 25 feet is required for tanks with a capacity greater than 500 gallons.
- Portable LP-gas containers must be securely fastened in place to prevent unauthorized movement; and must be adequately protected from tampering, damage by vehicles or other hazards.

Flammable and combustible liquids

- The use of flammable-liquid-fueled equipment is prohibited in tents.
- Flammable and combustible liquids must be stored outside in an approved location, a minimum of 50 feet away from tents.

Other fire prevention considerations

- Generators and other internal combustion power sources must be located a minimum of 20 feet away from tents.
- Combustible vegetation that could create a fire hazard must be removed from the area occupied by the tent and from the area within 30 feet of the tent.
- The floor surface inside tents and the grounds outside and within a 30-foot perimeter shall be kept free of combustible waste and other combustible materials that could create a fire hazard.
- The installation of tents must ensure that the existing fire protection equipment, such as fire hose lines, water supplies and other auxiliary equipment is not negatively impacted by the installation.
- Portable fire extinguishers must be provided in compliance with the applicable code provisions.

Permanent Tents

Pursuant to the 2015 VCC, Section 3103.1, tents erected for a period longer than 180 days are not “temporary tents” and must comply with the applicable provisions of the 2015 VCC. This includes, but it is not limited to items such as size, location, fire protection systems, means of egress, accessibility, etc.

This document is not intended to address permanent tents. While some of the information provided in this document, related to temporary tents, is also applicable to permanent tents, there are additional requirements that might be applicable to permanent tents. The local building official should always be consulted prior to the installation of any tent.

Additional Resources

Virginia Building Officials and Fire Officials Directories can be accessed here:

<https://www.dhcd.virginia.gov/code-officials-directory>

2015 Virginia Construction code can be accessed here: <https://codes.iccsafe.org/content/VCC2015P2>

2015 International Fire Code can be accessed here: <https://codes.iccsafe.org/content/IFC2015>

2015 Virginia Statewide Fire Prevention Code can be accessed here:

<https://codes.iccsafe.org/content/VFC2015>

2015 International Mechanical Code (with Virginia amendments) can be accessed here:

<https://codes.iccsafe.org/content/VMC2015>

2015 International Fuel Gas Code (with Virginia amendments) can be accessed here:

<https://codes.iccsafe.org/content/VFGC2015>

2014 National Electrical Code can be accessed here (must first register for free access):

<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards>

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