



COMMONWEALTH of VIRGINIA

Michael T. Reilly
EXECUTIVE DIRECTOR

Virginia Department of Fire Programs

Garrett Dyer
STATE FIRE MARSHAL

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Outdoor Heater Safety and General Guidelines for Tent and Membrane Structures

As COVID-19 continues to place severe limitations on work and social environments the seasonal weather will further impact how and where people gather. Many restaurants and other venues may use open outdoor space or a temporary membrane structure for patrons to have the adequate social space to comply with social distancing guidelines. With temperatures dropping, many business look to use portable heating appliances to provide necessary environmental comforts to its patrons. This guidance document provides general safety and code requirements within the 2015 Statewide Fire Prevention Code (SFPC) that govern the use and storage of portable outdoor heating, tent and other membrane structures.

Portable, outdoor gas-fired heating appliances:

The SFPC specifically regulates portable outdoor gas-fired heating appliances, commonly known as patio heaters. These portable heating appliances are typically configured as a free-standing pole, fashioned with a heater and reflector dome/shield at the top, with a broad base arranged for the storage of a 20-pound propane (LPG) cylinder. These appliances may also be designed to appear and function as portable outdoor fireplaces or tall patio tables.

Appliance Location Restrictions: portable outdoor gas-fired heating appliances shall be located in accordance with the following:

- **Clearance to Combustible Materials.** Portable outdoor gas-fired heating appliances shall not be located **beneath**, or closer than 5 feet to combustible decorations and combustible overhangs, awnings, sunshades, or similar combustible attachments to buildings.
- **Clearance to Buildings.** Portable outdoor gas-fired heating appliances shall be located at least 5 feet from buildings.
- **Prohibited Storage or Use.** The storage or use of portable outdoor gas-fired heating appliances is prohibited in any of the following locations:
 - Inside of any occupancy when connected to the fuel gas container
 - Inside of tents, canopies and membrane structures
 - On exterior balconies

- Proximity to Exits. Portable outdoor gas-fired heating appliances shall not be located within 5 feet of exits or exit discharges.

Installation and Operational Requirements: portable outdoor gas-fired heating appliances shall be installed and operated in accordance with the following:

- Listing & Approval. Only listed and approved portable outdoor gas-fired heating appliances utilizing a fuel gas container that is integral to the appliance shall be used.
- Installation & Maintenance. Portable outdoor gas-fired heating appliances shall be installed and maintained in accordance with the manufacturer's instructions.
- Tip-over Switch Required. Portable outdoor gas-fired heating appliances shall be equipped with a tilt or tip-over switch that automatically shuts off the flow of gas if the appliance is tilted more than 15 degrees from the vertical.
- Guard Against Contact Required. The heating element or combustion chamber of portable outdoor gas-fired heating appliances shall be permanently guarded to prevent accidental contact by persons or material.

Fuel Gas Containers: fuel gas containers for portable outdoor gas-fired heating appliances shall comply with the following:

- Approved Containers. Only approved DOT or ASME gas containers shall be used.
- Container Replacement Restriction. Replacement of fuel gas containers in portable outdoor gas-fired heating appliances shall not be conducted while the public is present.
- Container Capacity. The maximum individual capacity of gas containers used in connection with portable outdoor gas-fired heating appliances shall not exceed 20 pounds.

Storage:

- Prohibited Storage of Containers. Gas containers shall not be stored inside of buildings, or in any location near exit access doors, exits, stairways, or areas normally used, or intended to be used, as a means of egress. Containers not connected for use shall not be stored on roofs. *There are specific exceptions to indoor storage of LP-gas containers awaiting use or for resale.*
- Outside Storage of Containers. Gas containers approved for outside storage shall be located in a manner that minimizes exposure to excessive temperature rise, physical damage, and/or tampering, which includes a lockable, ventilated metal cabinet or other approved enclosure.
- Storage in basements, pit or similar location. LP-gas containers shall not be stored in a basement, pit or similar location where heavier than air gas might collect. Nor shall they be stored in above-grade underfloor spaces or basements unless such location is provided with an approved means of ventilation.

Portable, electric space heaters

- Only portable electric space heaters listed and labeled with UL 1278 shall be used.
- Portable, electric space heaters shall be plugged directly into an approved receptacle.
- Portable space heaters shall not be plugged into extension cords.
- Portable space heaters shall not be operated within 3 feet of any combustible materials and shall only be operated in locations for which they are listed.

Tent and other Membrane Structure Guidelines

- Any tent over 900 square feet is required to have a building permit.
- Any membrane structure over 400 square feet is required to have a fire safety inspection or any membrane structure that affects any means of egress from a permanent structure. (Exception of those used exclusively for recreational camping purposes.)
- Tents and canopies shall not be located within 20 feet of lot lines, buildings, other tents, parked cars or other combustion engines. For the purposes of measuring, the guy-wires and ropes are part of the tent.
- Anchoring of the tent shall be adequate to withstand the elements of weather and prevent against collapse. The anchoring must meet the manufacturer's requirements and weights used for anchors must be heavy enough to accomplish the manufacturer's specifications for set up. (All water barrels or water containers used as weight to anchors tent poles must be approved by the fire marshal of the authority having jurisdiction).
- Tents shall not be occupied when local winds are forecast or known to be greater than 40 miles per hour or when weather conditions of freezing rain or snow is forecast / present.
- Temporary tents shall not be erected for more than 180 days in a 12 month period.
- Combustible materials (Hay, straw, shavings or similar materials) shall not be stored in the tent or within 20 feet of the structure.
- Open flame, or other devices emitting flame, fire, heat, or any flammable or combustible liquid shall not be permitted inside or within 20 feet of the structure unless approved by the fire marshal of the authority having jurisdiction.
- Approved portable fire extinguishers shall be placed in accordance with Section 906 of the *Statewide Fire Prevention Code*.
- Smoking is prohibited, and "NO SMOKING" signs must be clearly posted.
- Emergency lighting must be provided.
- Exits and Means of Egress:
 - Exit signs are required at each exit doorway and must be illuminated (Exception of less than 50 people occupancy).
 - Aisles to the exits are a minimum of 44 inches and must be maintained.

Occupant Load	Minimum number of Means of Egress	Minimum width of each Means of Egress (inches)
10 to 199	2	72
199 to 499	3	72
500 to 999	4	96
1000 to 1999	5	120
2000 to 2999	6	120
Over 3000	7	120

Any questions can be directed to your local fire marshal or you can contact the State Fire Marshal's Office at 804-396-0525 or email Joshua.davis@vdfp.virginia.gov.