



**FIRE DEPARTMENT**

1333 NW Eastman Parkway, Gresham, Oregon 97030-3813  
Phone 503-618-2355 • Fax 503-666-8330  
[www.greshamoregon.gov/fire-department](http://www.greshamoregon.gov/fire-department)  
[GFD@GreshamOregon.gov](mailto:GFD@GreshamOregon.gov)

---

## **Heater Use Inside Tents, Temporary Special Event Structures and Other Membrane Structures**

**Reference: 2022 Oregon Fire Code**

This guide outlines the *minimum* requirements that must be met to operate a heater inside a tent or membrane structure. Utilizing information in this guide meets the applicable requirements of the 2022 Oregon Fire Code (OFC). Additional 2022 OFC code requirements may apply.

### **2022 Oregon Fire Code Requirements:**

#### **Chapter 6**

#### **ELECTRICAL EQUIPMENT, WIRING AND HAZARDS**

**603.9.4 Prohibited areas.** Portable, electric space heaters shall not be operated within 3 feet (914 mm) of any combustibile materials. Portable, electric space heaters shall be operated only in locations for which they are listed.

#### **FUEL-FIRED APPLIANCES**

**605.5.2.1.1 Prohibited locations.** The storage or use of portable outdoor gas-fired heating appliances is prohibited in any of the following locations:

...2. Inside of tents, canopies and membrane structures.

**605.5.2.1.3 Clearance to combustibile materials.** Portable outdoor gas-fired heating appliances shall not be located beneath, or closer than 5 feet (1524 mm) to combustibile decorations and combustibile overhangs, awnings, sunshades or similar combustibile attachments to buildings.

**605.5.2.1.4 Proximity to exits.** Portable outdoor gas-fired heating appliances shall not be located within 5 feet (1524 mm) of exits or exit discharges.

#### **Chapter 31**

#### **OPERATIONAL REQUIREMENTS**

**3107.4 Open or exposed flame.** Open flame or other devices emitting flame, fire or heat or any flammable or combustibile 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 or membrane structures while open to the public unless approved by the fire code official.

**3107.12.1 Installation.** Heating or cooking equipment, tanks, piping, hoses, fittings, valves, tubing and other related components shall be installed as specified in the International Fuel Gas Code and the International Mechanical Code, and shall be approved by the fire code official.

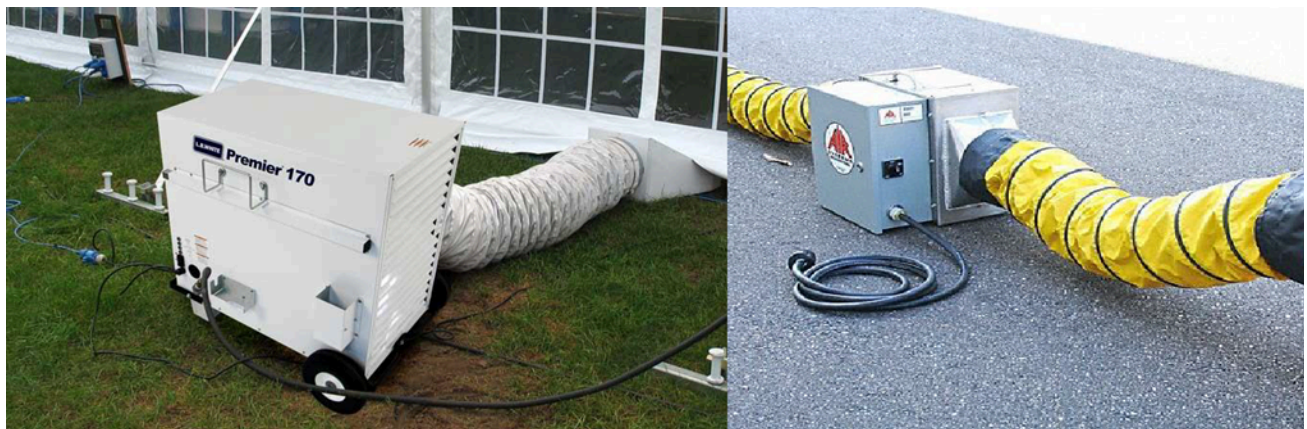
**3107.12.7 Electrical heating and cooking equipment.** Electrical cooking and heating equipment shall comply with NFPA 70.

**3107.13.2 Location of containers.** LP-gas containers and tanks shall be located outside in accordance with Table 6104.3. Pressure relief devices shall be pointed away from the tent or membrane structure.

## Installation Guidelines:

Based on the above code requirements, the following guidelines are for acceptable methods of heating a tent, canopy, or temporary membrane structure:

**Ducted Tent Heaters.** Electric, propane or natural gas direct or indirect ducted tent heaters are allowed where installed in accordance with manufacturer instructions. Heaters must have UL or other NRTL listings.



Ducted Tent Heater Examples

**Portable Electric Space Heaters.** Portable electric space heaters are allowed inside of a tent. Portable heaters shall have UL or other NRTL listing, over-temperature protection, ground heaters must have a tip-over switch, suspended heaters must be securely installed, and all heaters shall have clearances as required by manufacturer, but in no case less than 3 feet from any persons or combustible material including the tent or sidewall fabric. The power supply shall utilize a single listed outdoor extension cord rated for the amperage and provided with GFCI protection or be provided with temporary power supply approved by the building official.



Portable or Suspended Electric Heater Examples



Portable or Suspended Electric Heater Examples

**Catalytic Heaters.** Propane or natural gas fueled catalytic heaters which heat by chemical reaction and have no combustion are allowed within a tent or canopy. Catalytic heaters must have UL or other NRTL listing, tip-over switch, and maintain clearances as required by the manufacturer, but in no case less than 3 feet from any persons or combustible material including the tent or sidewall fabric. The propane or natural gas source cylinder is not allowed within the tent.

### Catalytic Heater Examples

