



CHARLESTON FIRE DEPARTMENT



Fire Marshal Division

Information Bulletin

Portable Outdoor Gas-Fired Heating Appliances (Patio Heaters)

The use of outdoor heaters has grown as the popularity of outdoor dining, patios, and rooftop venues has increased. Portable gas-fire heaters have very specific guidelines and may only be used under limited conditions. We would like to make sure you are aware of the requirement and limitations related to the use of portable gas-fired heaters to improve fire and life safety while reducing the potential for injury.

General Information

Section 605.5 of the International Fire Code, 2021 Edition (South Carolina), specifically regulates portable outdoor gas-fired heating appliances, commonly known as patio heaters. These portable heating appliances are typically configured as a free-standing unit, often fashioned with a heater and a reflector dome/shield at the top and may include a broad base arranged for storage of a 20-pound propane cylinder. These appliances may also be designed to appear and function as portable outdoor fire places or patio tables.

As noted below, these types of heaters are not permitted within 5' of buildings, which greatly restricts their use near buildings and eliminates their use on buildings. Facilities utilizing heaters must store new and used cylinders at an approved location and in an approved manner.

Portable Heater Appliance Locations Restrictions

In accordance with Section 605.5.1 of the Fire Code, portable outdoor gas-fired heating appliances shall be in accordance with the following restrictions:

- **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:
 1. Inside of any occupancy where connected to fuel gas container
 2. Inside of tents, canopies and membrane structures.
 3. On exterior balconies.
- **605.5.2.1.2 Clearance to a building.** Portable, outdoor gas-fired heating appliances shall be located not less than 5 feet (1524 mm) from buildings.
- **605.5.2.1.3 Clearance to combustible materials.** Portable outdoor gas-fired heating appliances shall not be located beneath, or closer than 5 feet (1524 mm) to combustible decorations and combustible overhangs, awnings, sunshades or similar combustible 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 *exit or discharge*.

Installation and Operational Requirements

In accordance with Section 605.5.2.2 of the Fire Code, portable outdoor gas-fired heating appliances shall be installed and operated in accordance with the following regulations:

- **605.5.2.2.1 Listing and approval.** Only listed and approved portable outdoor gas-fired heating appliances utilizing a fuel gas container that is integral to the appliances shall be used.
- **605.5.2.2.2 Installation and maintenance.** Portable outdoor gas-fired heating appliances shall be installed and maintained in accordance with the manufacturer's instructions.

- **605.5.2.2.3 Tip-over switch.** 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 (0.26 rad) from the vertical.
- **605.5.2.2.4 Guard against contact.** The heating element or combustion chamber of portable outdoor gas-fired heating appliances shall be permanently guarded so as to prevent accidental contact by person or material.

Gas containers

In accordance with Section 605.5.2.3 of the Fire Code, fuel gas containers for portable outdoor gas-fired heating appliances shall comply in the following:

- **605.5.2.3.1 Approved containers.** Only approved DOT or ASME gas containers shall be used.
- **605.5.2.3.2 Container replacement.** Replacement of fuel gas containers in portable outdoor gas-fired heating appliances shall not be conducted while the public is present.
- **605.5.2.3.3 Container capacity.** The maximum individual capacity of gas containers used in connection with portable outdoor gas-fired heating appliances shall not exceed 20 pounds (9 kg.)
- **605.5.2.3.4 Indoor storage prohibited.** Gas containers shall not be stored inside of buildings except in accordance with Section 6109.9

Please contact the Charleston Fire Department- Fire Marshal Division at (843)-724-3429 with any questions, comments, or concerns. We look forward to working with you in maintaining a safe environment in our community.