

COLORADO SPRINGS FIRE DEPARTMENT

Temporary LPG Heat for Construction Sites

Requirements for installation and use of LPG tanks for temporary heat at construction sites.



TECHNICAL SERVICES
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PURPOSE

This document is provided to assist liquefied petroleum gas contractors (e.g. propane, butane) with permit submittals for LPG-fueled temporary heating assemblies for a construction site.

SCOPE

This document applies to the approved temporary use and required permitting of liquefied petroleum gas (LPG) heating systems used for heating at construction sites as required by 2015 *International Fire Code*, as amended, and NFPA 58, *Liquefied Petroleum Gas Code*, current edition. Prior to using any LPG on site, a permit application must be submitted to Colorado Springs Fire Department (CSFD) and approved, and the system must be inspected and approved prior to filling the tank(s) with LPG.

The fees for this permit and inspection shall be assessed in accordance with the CSFD Permit Fee Schedule and the permit/inspection fees shall be due upon approval of the permit application, but before scheduling the inspection.

DEFINITIONS

Liquefied Petroleum Gas (LP-Gas) A material which is composed predominantly of the following hydrocarbons or mixtures of them: propane, propylene, butane (normal butane or isobutane) and butylenes.

LP-Gas Container Any vessel, including cylinders, tanks, portable tanks and cargo tanks, used for transporting or storing LP-gases.

GUIDELINES

I. Permitting and Fees

A permit from the Division of the Fire Marshal is required prior to the use of any approved temporary LPG heating system per the 2015 *International Fire Code*, as amended. The application can be found at the CSFD website, under “Fire Code Resources”. Please fill out Sections 1, 2, 3, 4, 7, and 8 on the first page and check the box “105.6.28-LP Gas” under Prescribed (Revocable) Permits on the second page.

An application and all supporting documentation must be submitted to the Division of the Fire Marshal, 375 Printers Parkway; two hardcopies must be provided. Once a permit application and required information has been submitted and approved, set up of the system may begin. The permit will be issued at the time of inspection and must remain on site of the display at all times until after the dismantling of the production. DO NOT fill the tank until after the inspector approves the set up.

Fees are required for permits and subsequent inspections. The fee amount is based on the current approved Division of the Fire Marshal Fee Schedule.

II. Plan Submittal Requirements

In order for a permit to be issued, construction plans must be submitted to the Division of the Fire Marshal and subsequently reviewed and approved. All temporary LPG-fueled heating assemblies with a tank in excess of 125 gallons water capacity shall require a permit and installed in accordance with the 2015 *International Fire Code*, as amended, as well as applicable provisions of NFPA 58, *Liquefied Petroleum Gas Code*, current edition.

The LPG tank(s) installed for temporary heat at a construction site may not exceed 1,000 gallons water capacity per tank and 2,000 gallons water capacity for an aggregate of tanks. Additional tanks over the 2000 gallons aggregate water capacity shall require special approval and additional review by the CSFD. For the purposes of this permit only, CSFD defines a "site" as a single street address.

The submittal package for temporary LPG heating must consist of the following documents. This submittal package must be received by the Division of the Fire Marshal no later than ten (10) business days prior to the desired installation date. Incomplete submittals will be disapproved or not accepted.

Submittal requirements include, but are not limited to:

1. REQUIRED FORMS (see attachments):
 - a. CSFD Permit Application
 - b. Qualifications of installer/attendants – Provide proof of installer certification in accordance with NFPA 58. Certification shall be readily available to the Fire Inspector at the time of Inspection.
2. Site map including:
 - a. Location of installation, including address
 - b. Legal boundaries of the site.
 - c. Location of significant buildings on the lot or site and adjacent lots or sites.
 - d. Location of nearest public roadways and site access. Declare separation distances in feet.
 - e. North arrow.
 - f. Topographical features.
 - g. Proposed container location with respect to buildings, building openings, lot lines, public roadways, and underground or overhead utilities; appliances or equipment, ignition sources, etc.
 - h. Container capacity
 - i. Container design compliance, e.g. ASME, DOTn, API.
 - j. Details of container foundation and supports.
 - k. Arrangement of valves and piping, identify emergency shut off locations
3. Specifications for valves, piping, tank mounts and pads and other related equipment and application. Provide specifications/cut sheets on heating units, the number and their location/placement within building or on property.
4. Means for protecting valves and piping from tampering and physical damage.
5. Name, address and telephone number of installer and servicing contractor; and emergency contact number and names for owner and LP Gas supplier contractor.
6. Fire protection and prevention measures to be implemented or on site. Identify items on site map:
 - a. Standpipes
 - b. Water supply
 - c. Fire extinguishers
 - d. Fire watch
 - e. Site security
 - f. Fire department access

Once the plan submittal has been approved, a permit will be generated. However the permit will not be issued until fire final inspection is signed off. Only then may the tank be filled and system allowed to be used.

III. Interior Use

The installation of LPG containers may be installed indoors, only if in accordance with the following provisions of the 2015 *International Fire Code*, as amended and NFPA 58, *Liquefied Petroleum Gas Code*, current edition.

- Limited to conditions where indoor use is necessary and locating cylinders outdoors is impractical.
- Containers shall be specifically approved for indoor use.
- 125 gallons water capacity (530 lb. propane) aggregate of all containers, maximum.
- LP-Gas containers shall NOT be used in a basement, pit or similar location where heavier-than-air gas might collect, nor be used in an above-grade under floor area unless provided with an approved means of ventilation, subject to the discretion of CSFD.

IV. Inspection

Upon receipt of application approval, the installation contractor may begin assembling the tank and components on site as well as schedule an installation inspection through the Division of the Fire Marshal; NOTE: the inspection will not be scheduled until the Temporary LPG Heat For Construction Sites

permit fees have been paid, and if the system is used prior to an inspection approval, it will be considered work without permit, and a work without permit fee shall apply. The inspection shall be **performed and approved prior to filling any tank.**

The site and assembly will be inspected to ensure that the installation and use of equipment is in accordance with all applicable provisions of the 2015 *International Fire Code*, as amended and NFPA 58, *Liquefied Petroleum Gas Code*, current edition.

V. Re-Inspection

If, upon inspection, the Fire Inspector identifies any issues that do not conform to all applicable provisions of the 2015 *International Fire Code*, as amended and NFPA 58, *Liquefied Petroleum Gas Code*, current edition, that cannot be immediately corrected, the inspection shall not be approved. A re-inspection will be required and a **re-inspection fee** will be assessed in accordance with the CSFD Fee Schedule.

If the installation was previously inspected and approved, a Cease and Desist Order Notice will be issued, and shall remain effective until relieved by the Inspector after a successful re-inspection.