



PLUMAS COUNTY BUILDING DEPARTMENT

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LPG Appliance Summary of Approved Locations

The California Mechanical Code restricts the locations within a structure where LPG appliances are allowed to be installed. This is because LPG, unlike natural gas, is heavier than air and can accumulate in low confined spaces, with disastrous results. The purpose of this summary is to clarify the locations where LPG appliances can and cannot be installed.

California Mechanical Code Sec. 304.7 Liquid Petroleum Gas Appliances. Liquid petroleum gas-burning appliances shall not be installed in a pit¹, basement² or similar location where heavier-than-air gas might collect. Appliances so fueled shall not be installed in an above-grade under-floor space or basement unless such location is provided with an approved³ means for removal of unburned gas.

To appropriately understand and apply this section, the Code definitions of “pit”, “basement”, and “approved” are provided below. The Plumas County Building Department interprets and applies this section as follows:

PROHIBITED LOCATIONS:

1. **Full Basement or Pit:** In a “full” basement or pit where the floor level of the enclosed space, for the entire perimeter of the floor, is lower than the surrounding grade level, the installation of an LPG appliance is prohibited. Neither the use of this space (i.e. dwelling, garage, habitable, non-habitable), or if the floor is considered a story above grade plane, have any bearing on this Code section, nor does providing approved means for the removal of unburned gas. An LPG appliance cannot be installed in these locations.
2. **Similar Locations:** In areas similar to a pit or full basement where the Building Official determines LPG might collect, an LPG appliance cannot be installed.

RESTRICTED LOCATIONS:

3. **Daylight/Walkout Basement:** In a “daylight” basement where the floor level of the enclosed space, for at least a portion of the perimeter of the floor, is higher than the surrounding grade level, the installation of an LPG appliance may be allowed only if such location is provided with an approved means for removal of unburned gas.
4. **Under-Floor Area:** In an under-floor space, the installation of an LPG appliance is only allowed if such location is provided with an approved means for removal of unburned gas.

APPROVED LOCATIONS: Any location not listed above is considered an approved location.

Approved Means for Removal of Unburned Gas in Restricted Locations: Relocating the appliance(s) to a non-restricted location is the preferred option. However, the design professional in charge of the project may submit, for review and possible approval, detailed drawings of the proposed method to provide means for removal of unburned gas. So as not to delay the building permit issuance process, these details should be fully and clearly shown on the submitted construction drawings.

Since each installation presents unique locations, conditions, and hazards, the Plumas County Building Department does not provide a generic “approved means for removal of unburned gas” detail. We encourage individuals to discuss with us the specific circumstances of their project prior to commencing significant design work. Some of the features that make approval more likely are the following:

- a. **Redundancy:** A method that does not rely on only one feature or device to remove the unburned gas or mitigate the hazard of the unburned gas.
- b. **Durability:** A method that the effectiveness is not likely to be reduced over time or by the servicing and repair of the equipment.
- c. **Non-removable:** A method which is not easily removed or likely to be changed, or the effectiveness reduced knowingly or unknowingly by subsequent home owners or repair persons.

We encourage discussion and questions regarding this, or any other issue. Discussion regarding *approved means* for removal of unburned LPG in restricted locations should be directed to the Building Official.

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DEFINITIONS:

PIT : *an area often sunken or depressed below the adjacent floor area.*

BASEMENT: *That portion of a building that is partly or completely below grade plane (see “story above grade plane” in section 202). A basement shall be considered as a story above grade plane where the finished surface of the floor above the basement is:*

- 1. *More than 6 feet (1829 mm) above grade plane; or*
- 2. *More than 12 feet (3658 mm) above the finished ground level at any point.*

APPROVED: *Acceptable to the code official (Building Official) or authority having jurisdiction.*

[DSA-AC, HCD 1 & HCD 2] *"approved" means meeting the approval of the enforcing agency, except as otherwise provided by law, when used in connection with any system, material, type of construction, fixture or appliance as the result of investigations and tests conducted by the agency, or by reason of accepted principles or tests by national authorities or technical, health or scientific organizations or agencies.*