



**Boulder County
Land Use Department
Publications**

LPG Tank Installation & Location

Land Use Department
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8 a.m.-4:30 p.m. Mon., Wed., Thurs., Fri.
10 a.m.-4:30 p.m. Tuesday

Building Permits can be applied for
and issued until 4 p.m.

Propane Tank Installation and Location

Per the 2015 IFC (International Fire Code) Section 6104.

Propane Tanks

Propane tanks can be a real hazard to firefighters and homeowners alike during a fire. Tanks can easily be heated by radiant energy from a burning house or vegetation. Generally, as the tank begins to pressurize from the heat, it will begin by venting excess propane into the atmosphere through a valve in the top of the tank. This can cause a dramatic “torch” effect from the tank. More serious, though, is the possibility of tank over-pressurizing, causing a rupture.

This usually occurs when the tank is nearly empty and there is more gas than liquid in the tank. The valve may no longer function in this case, and a dramatic depressurization may occur (i.e. an explosion). For these reasons, propane tanks (and other kinds of pressurized tanks) must be treated with special care in areas subject to periodic wildfires.

Propane Tank Installation

When installing a propane tank on your mountain property, remember the following:

- Propane tanks are generally set on a concrete pad for proper support. If the concrete is limited to small pads under the feet of the tank, you should surround the rest of the tank with weed barrier and crushed rock or gravel.
- Keep combustible materials away from propane tanks. Don't stack firewood or scrap lumber near the tank.
- Don't put the tank directly underneath a tree. Keeping the tank in the shade zone of trees is fine, but don't allow tree branches to overhang the tank. Vegetation within 10 feet of the tank must be kept cleared.
- If screening the tank from view is desired, try to utilize a natural feature, such as a rock outcrop. Wood fencing around the tank is a bad idea; try a dry stacked rock or block wall instead. Deciduous shrubs or small trees (such as aspen) may be used as screening, as long as they are kept 10 feet away from the tank. Do not use highly flammable shrubs (like juniper bushes) as screening!
- If you are purchasing a propane tank (as opposed to leasing), consider an underground unit. While there are some additional costs associated with such buried tanks, they are preferable to above ground tanks in high wildfire hazard areas, since they won't be exposed to radiant heating from a fire like above ground tanks would be. They also stay cooler and aren't as visible on a day-to-day basis.

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IFC (International Fire Code) Table 6104.3

Location of LP-Gas Containers

LP-Gas Container Capacity (Water Gallons)	Minimum separation between LP-Gas containers and buildings, public ways, or lot lines of adjoining property that can be built upon		Minimum Separation Between LP-Gas Containers ^{b, c} (feet)
	Mounded or Underground LP-Gas Containers ^a (feet)	Above-Ground LP-Gas Containers ^b (feet)	
Less than 125 ^{c, d}	10	5 ^e	None
125 to 250	10	10	None
251 to 500	10	10	3
501 to 2,000	10	25 ^{e, f}	3
2,001 to 30,000	50	50	5
30,001 to 70,000	50	75	(0.25 of sum of diameters of adjacent LP-gas containers)
70,001 to 90,000	50	100	
90,001 to 120,000	50	125	

Theses are the foot notes for the table:

For SI: 1 foot = 304.8 mm, 1 gallon = 3.785 L.

- a. Minimum distance for underground LP-gas containers shall be measured from the pressure relief device and the filling or liquid-level gauge vent connection at the container, except that all parts of an underground LP-gas container shall be 10 feet or more from a building or lot line of adjoining property which can be built upon.
- b. For other than installations in which the overhanging structure is 50 feet or more above the relief-valve discharge outlet. In applying the distance between buildings and ASME LP-gas containers with a water capacity of 125 gallons or more, a minimum of 50 percent of this horizontal distance shall also apply to all portions of the building which project more than 5 feet from the building wall and which are higher than the relief valve discharge outlet. This horizontal distance shall be measured from a point determined by projecting the outside edge of such overhanging structure vertically downward to grade or other level upon which the LP-gas container is installed. Distances to the building wall shall not be less than those prescribed in this table.
- c. When underground multicontainer installations are comprised of individual LP-gas containers having a water capacity of 125 gallons or more, such containers shall be installed so as to provide access at their ends or sides to facilitate working with cranes or hoists.
- d. At a consumer site, if the aggregate water capacity of a multicontainer installation, comprised of individual LP-gas containers having a water capacity of less than 125 gallons, is 500 gallons or more, the minimum distance shall comply with the appropriate portion of Table 3804.3, applying the aggregate capacity rather than the capacity per LP-gas container. If more than one such installation is made, each installation shall be separated from other installations by at least 25 feet. Minimum distances between LP-gas containers need not be applied.
- e. The following shall apply to above-ground containers installed alongside buildings:
 1. LP-gas containers of less than a 125-gallon water capacity are allowed next to the building they serve when in compliance with Items 2, 3, and 4.
 2. Department of Transportation (DOTn) specification LP-gas containers shall be located and installed so that the discharge from the container pressure relief device is at least 3 feet horizontally from building openings below the level of such discharge and shall not be beneath buildings unless the space is well ventilated to the outside and is not enclosed for more than 50 percent of its perimeter. The discharge from LP-gas container pressure relief devices shall be located not less than 5 feet from exterior sources of ignition, openings into direct-vent (sealed combustion system) appliances or mechanical ventilation air intakes.
 3. ASME LP-gas containers of less than a 125-gallon water capacity shall be located and installed such that the discharge from pressure relief devices shall not terminate in or beneath buildings and shall be located at least 5 feet horizontally from building openings below the level of such discharge and not less than 5 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances, or mechanical ventilation air intakes.
 4. The filling connection and the vent from liquid-level gauges on either DOTn or ASME LP-gas containers filled at the point of installation shall not be less than 10 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances or mechanical ventilation air intakes.
- f. This distance is allowed to be reduced to not less than 10 feet for a single LP-gas container of 1,200-gallon water capacity or less, provided such container is at least 25 feet from other LP-gas containers of more than 125-gallon water capacity.