**gas NFPA 96**

**17.8.10.1.7**

Gas piping shall be installed to enter the vehicle through the floor directly beneath or adjacent to the appliance served. [**58:**6.27.5.1(l)]

**17.8.10.1.8**

If a branch line is installed, the tee connection shall be located in the main gas line under the floor and outside the vehicle. [**58:**6.27.5.1(J)]

**17.8.10.1.15**

Pipe or tubing shall not be run inside walls, floors, partitions, ceilings, or concealed construction space. [**58:**16.6.7.6]

**NFPA 58**
After a container is permanently installed on a vehicle, container markings shall be readable either directly or with a portable lamp and mirror. [**58:**16.3.7]

**319.8.4 Protection of system piping.**

LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

❖ Similar to [Sections 6109.8](https://codes.iccsafe.org/lookup/IFCComm2021P1_Pt05_Ch61_Sec6109.8/2504) and [6109.13](https://codes.iccsafe.org/lookup/IFCComm2021P1_Pt05_Ch61_Sec6109.13/2504), this section requires that LP-gas system piping, valves and fittings be protected as stated. Valve assemblies must be protected from physical impact. Cylinders having propane capacities up to 60 pounds (27 kg) will usually have collars that extend above the height of the valves. Larger cylinders will have screw-on caps or domes that serve the same function.

Within the vehicles, tampering with LP-gas containers may be a problem. For that reason, locked metal cabinets can be used to provide not only tamper protection but also protection from impact. This section also adds the specific requirement that system piping be protected from the vibration that occurs due to vehicle motion and road conditions. This is to ensure that the level of hazard is not increased in this specific use beyond what the code allows for a fixed container location.

**319.9.1.2 Protection of container.**

CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to a direct vehicle impact.

❖ This section adds the specific requirement that CNG containers be protected from the vibration that occurs due to vehicle motion and road conditions. This is to ensure that the level of hazard in this use is not increased beyond what the code allows for a fixed container location. In addition, it is not allowed to locate containers within areas of the vehicles that can sustain damage from collisions.

**NFPA 58**

**16.6.8.4**

Hose shall not be installed in the vehicle.

**16.6.9.5**

Piping installed outside or underneath a motorized vehicle shall be either of the following:

* (1)

Schedule 80 pipe

* (2)

Tubing installed inside a protective conduit or a listed encasement system

**16.6.9.6**

At each point where piping passes through sheet metal or a structural member, a rubber grommet or equivalent protection shall be installed to prevent chafing.

**319.10.3 Fuel gas systems.**

LP-gas containers installed on the vehicle and fuel-gas piping systems shall be inspected annually by an *approved* inspection agency or a company that is registered with the US Department of Transportation to requalify LP-gas cylinders, to ensure that system components are free from damage, suitable for the intended service and not subject to leaking. CNG containers shall be inspected every 3 years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer’s container label. Upon satisfactory inspection, the *approved* inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection