

Bulk Storage, Safety Update and Regulations:

OSHA Regulations [OSHA 1910.110](#): Storage and handling of liquefied petroleum gases.

Standard installation and placarding
Please ensure your installations meet
the required regulations



(Standard 1000-gallon filling system)

NFPA 58 Standards for storage and handling:

This edition of NFPA 58, Standard for the Storage and

Handling of Liquefied Petroleum. Gases ... propane, propylene, butane (normal butane or isobutane)

Storage and handling of liquefied petroleum gases.

NFPA 58 Requires LPG tanks of 501-1000-gallon water capacity to be installed 25 ft. from any building, group of buildings, or an adjoining property line. The distance from a building may be reduced to 10 ft. for a SINGLE container under 1200-gallon water capacity, if no other container of 125-gallon water capacity or more is located within 25 ft.

Containers may not be installed less than 20 ft. from liquid Oxygen containers of 400-20,000 cubic ft. capacity or 25 ft. from containers over 20,000 cubic ft. capacity, unless protective structures having a minimum 2 hr. fire rating interrupt the line of sight between uninsulated portions of the oxygen container and the LP Gas container.

Containers must be installed on a substantially level surface. A concrete surface is preferred, but the container may be installed on substantial concrete pads or footings, with approval of local authorities. Containers not installed inside a perimeter fence must be enclosed with a minimum 6 ft. industrial fence. Two means of egress from the enclosure must be provided at opposite corners, and a minimum 36" clearance must be maintained from the container, or a valve locking mechanism must be provided to prevent tampering.

Substantial protection from vehicle traffic MUST be provided, consisting of vertical posts equal to 3" schedule 40 iron pipe, spaced not more than 48" apart, 18" deep in concrete, (Anchor Plates bolted to concrete are NOT ACCEPTABLE!) top rail not less than 30" above grade. Maximum opening in the rail must not exceed 36". CITY OF HOUSTON Requires 4" Schedule 40 pipe, 48" on center, 36" deep in a 16" diameter hole and filled with concrete.

Containers must NOT be installed less than 6 ft. on a vertical plane from over head power lines of 600 volts, nominal. All fixed electrical equipment within 15 ft. in all directions from connection points on container, and 15 ft. in all directions from pumping equipment, must meet Electrical Code Class 1 Division 2.

NFPA 70, National Electric Code Class 1, Group D, Division 2, equipment within a 5 ft. sphere from fixed level gauges, or other possible sources of gas release must meet Class 1, Group D, division 1. A Remote Electrical Shutdown /Disconnect must be installed no less than 20 ft. or more than 100 ft. and visible from point of transfer.

"The safety information included in the Gas Innovations Safety Bulletin references publications by **the National Fire Protection Agency (NFPA)**, **The Compressed Gas Association (CGA)** and **The Occupational Safety and Health Administration (OSHA)** Due to the volume of this information, Gas Innovations has not included all safety precautions in these bulletins, and suggests the user consults the aforementioned sources."