LIQUEFIED PROPANE GAS (LPG)

Installation and Operation

Garland Fire Department Fire Marshal's Office

These guidelines are to be followed when a building or facility within the City of Garland proposes to install a Liquefied Propane Gas (LPG) tank, equipment or systems within the City of Garland City Limits.

NOTICE: In accordance with H.B. No. 2663, all liquefied petroleum gas (LPG) installations and operations shall comply with NFPA 58, 2008 Edition, as adopted and modified by the Railroad Commission of Texas under TAC Title 16, Part 1, Chapter 9.

A PERMIT is required to be issued by our office and the installation inspected.

An Operational PERMIT is required for storage and use of LP gas in excess of 60 gallons water capacity. This permit shall be renewed annually at a fee of \$100.00 (IFC 2015 Sec.105.6.28 as amended)

The below is provided as "information only" and indicates both NFPA 58 and 2015 IFC requirements. All applications will be reviewed in accordance with H.B. No. 2663.

Installation Requirements

- 1) Location of the LPG tanks shall be in accordance with NFPA 58, 2008 Edition, and Table 6.3.1.
- 2) LPG tanks and piping shall be approved and/or listed for the use involved.
- 3) LPG tanks shall be placed on a secured to a concrete or masonry foundation.
- 4) All equipment and piping installations shall comply with the 2006 IMC. Electrical services shall comply with the 2005 NEC. The Building Department will be required to inspect all equipment, piping and electrical.
- 5) All underground piping shall be inspected PRIOR TO cover.
- 6) A shut off valve will be required and shall be located at an easily accessible location, as approved by the Fire Department.
- 7) Safety devices shall be provided on the LPG tank(s) as required by NFPA 58.
- 8) All tanks shall be provided with a fixed liquid level gauge installed by the manufacturer.
- 9) Fire protection shall be provided in accordance with Section 6.23 of NFPA 58 for installations over 4,000 gallons.
- 10) A minimum of one (1) fire extinguisher shall be provided.
- 11) Tank areas shall be kept free and clear of all combustible materials, weeds, grass, brush, including storage, for a distance of at least 10 feet on all sides.
- 12) Sources of ignition, including smoking and open flames, shall be prohibited during filling operations, in accordance with NFPA 58, Section 7.2.3.2. "No Smoking" signs shall be provided as needed or required.
- 13) Where the installation may be exposed to vehicular damage, all tanks piping and equipment shall be protected from vehicle damage (bollards) in accordance with IFC Section 312 and NFPA 58, Section 6.6.6.1(B), as follows:
 - 1) Install 4-inch steel pipes filled with concrete.
 - 2) Pipes shall be spaced no more than 4 feet apart.
 - 3) Pipes shall be set not less than 3 feet deep in a concrete footing of not less than 15-inch diameter.
 - 4) The top of the post shall be a minimum of 3 feet above the ground.
 - 5) Posts shall not be located less than 3 feet from the cage.
- 14) LPG installations shall be so located with respect to other site specific special hazards to include aboveground flammable/combustible liquid tanks, LOX, flood plains, drainage, electrical power lines, or other hazards as identified.
- 15) The Fire Marshal's Office may approve alternate methods and material as needed.

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Operational Requirements

16) Provisions shall be made for controlling and mitigating unauthorized LPG discharges. A Hazardous Materials Management Plan shall be readily available on site.

To expedite the plan review and inspection processes, please refer to the information listed below.

Permitting and Submittal Requirements

- 17) Provide a written description of the intent of the LPG installation.
- 18) Site plan drawing of the site location and conditions, to include;
 - a) All buildings and structures.
 - b) Fire lanes and fire hydrants.
 - c) Location of tank(s) with regards to building façade and exits.
 - d) Location of the lot line and distance from the lot line.
- 19) Provide a scaled drawing of the exact type of tank to be installed and indicate all listings and approvals.
- 20) Indicate the type of piping to be used to connect to the LPG equipment and indicate the location (aboveground or underground).
- 21) Indicate all relief and safety devices that are part of the tank or installation.
- 22) Indicate the maximum working pressure of the tank(s) and piping.
- 23) Drawings shall be submitted for review and approval, **PRIOR** to installation.
- 24) Drawings shall be generated by the installing company specific to the removal operation. Drawings shall show plan view and other pertinent information.
- 25) The submittal package must include all above requirements and such requirements shall be identified in the submittal package.
- 26) No LPG tanks or equipment may be installed or otherwise manipulated on the site until a LPG Permit has been issued. Any work performed prior to the issuance of this permit may result in a citation being issued for violation of Section 105 of the 2009 International Fire Code.

General Requirements

- 27) <u>Installation, fabrication or otherwise construction of the system is prohibited without approved plans and permit.</u>
- 28) Each submittal shall have a completed Garland Fire Department Plan Review Permit Application.
- 29) Plans approved by the Fire Marshal's Office give authorization for construction. Final approvals are subject to field verification. Any approval issued by the Fire Marshal's Office does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances relating to the construction project.
- 30) All installations must concur with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office.
- 31) All fire department inspection forms and permits shall be kept in a permit packet on the job site until final inspection.

LPG tanks and operations shall conform to the 2015 International Fire Code, as applicable, and NFPA 58, 2008 Edition, Standard for the Storage and Handling of Liquefied Petroleum Gases, as adopted and modified by the Railroad Commission of Texas.

This guide does not replace, nor supersede any codes and/or ordinances adopted by the City of Garland, or determinations and positions of the Fire Chief or Fire Marshal.