



**Liquid Propane
Informational guide to submitting plans**

Plans are to be submitted to: **State Fire Marshal**
215 E. 7TH ST.
Des Moines, Iowa 50319

This guide was produced to assist in conducting inspections/installations of LP tank installations and systems to determine code compliance in accordance with NFPA 58, 2014 edition, as formally adopted by the Iowa Administrative Code 661-226 (101). This handout shall NOT be construed as a substitute for NFPA 58, 2014 edition. Any person using this handout is reminded to consult NFPA 58 in its entirety for a complete listing regarding the requirements for LP tank installations. Note: (NFPA 54, 2015 edition, shall apply to the installation of fuel gas piping systems). *To purchase a copy of NFPA 58 or 54, call NFPA at 1-800-344-3555.*

Stationary installations utilizing storage containers of over 2000-gallon individual water capacity, or with aggregate water capacity exceeding 4000 gallon, shall be submitted to the State Fire Marshal's Office: In addition to the information from below, include a letter of approval from the local authority, (city or county) where the tank is located.

Liquid Propane plans

OWNER INFORMATION		PROJECT INFORMATION			CONTRACTOR INFORMATION	
Name		Facility Name			Customer ID# Contractor Name	
Company Name		Site Address			Number and Street	
Number and Street		<input type="checkbox"/> City <input type="checkbox"/> Village <input type="checkbox"/> Town of:			City, State, Zip Code	
City, State, Zip Code		County			Contact Person Customer ID#	
Telephone Number	Fax	Fire Dept. Providing Fire Coverage			Telephone Number	Fax
Number		FDID #			Number	
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- A detailed site plan that shows the general layout of the land is required. Be sure to show all distances to buildings, property lines, and other use areas such as residences. Site plans must be legible to be accepted.

Site Plans shall include the following information:

- 1. Electrical.
- 2. Location of Emergency shutoffs/electrical disconnects.
- 3. Trespass precautions. Chain Link Fence/Locked Controls.
- 4. Location of extinguisher.
- 5. Manufacturer Specification Sheet(s) for all equipment. (Valves, hoses, etc.) . **Note: A description or layout of the piping system shall be submitted for review. Location of all valves is required.**
- 6. Local approval letter.

INSTALLATION CHECKLIST FOR LP TANK CONTAINERS

Container Type: ASME approved. The container shall be marked or stamped with a Data Plate.

Note: Railcars not permitted.

Container Information:

Container Size-

Year Built-

Manufacturer's Serial #--

National Board #-

Pressure-

Inches Length-

Inches Diameter-

Shell Thickness-

Head Thickness-

Tank Location: Minimum Distance to Buildings, & Other Properties.

2001-30,000=50ft

30,001-70,000=75ft

70,001-90,000=100ft

90,001-120,000=125ft

Protection against Tampering: for (Bulk Plant & Industrial LP gas Systems) and (Cylinder Dispensing and Vehicle Fuel Stations) -- To minimize the possibilities for trespassing and tampering, the area that includes container appurtenances, pumping equipment, loading & unloading facilities, and container filling facilities shall be protected by one of the following methods:

(A) Enclosure with at least a 6-ft high industrial type fence. There shall be at least two means of emergency access from the fenced enclosure. Clearance shall be provided to permit maintenance and at least 3 feet should be provided to allow access to exits.

(B) As an alternate to fencing, suitable devices that can be locked in place shall be provided. Such devices, when in place, shall effectively prevent unauthorized operation of any of the container' appurtenances, system valves or equipment.

Vehicle Protection Posts: Where physical damage to LP gas containers or systems from vehicles is a possibility, precautions shall be taken against damage by vehicles. Required to protect all equipment, piping, & tanks.

1. Guard post shall be constructed of steel not less than 4 in. in diameter & shall be filled with concrete.

2. They shall be spaced not more than 4ft on center

3. They shall be set not less than 3ft deep in a concrete footing of not less than 15-in. diameter

Note: Other approved protection is acceptable.

Valves: Container valves properly installed per NFPA 58, 2014 Edition- Section- 5.7.4

Emergency Shut-off: A pull type shut off system shall be attached to the tank to stop the flow of product out of the tank in an emergency, on stationary installations with aggregate w/c of more than 4,000 gal. Emergency controls shall comply with NFPA 58, 2014 Edition- Section- 6.12.

- All new installations and existing installations of emergency shutoff valves shall have at least one clearly identified and easily accessible manually operated remote emergency shutoff device. The device shall be located not less than 25 ft (7.6 mm) or more than 100 ft (30.5 m) in the path of egress from the emergency shutoff valve.
- Emergency controls, where applicable, shall be conspicuously marked and readily accessible.

Gauges: 1. An internal spring-type, flush-type full internal or external pressure relief valve.

1. A fixed maximum liquid level gauge.
2. A float gauge, rotary gauge, slip tube gauge, or a combination of these gauges.
3. A pressure gauge.
4. A temperature gauge.

Labeling: The tank shall be labeled with the words "Liquid Propane," "Flammable," and a "No Smoking," or "No Open Flame" sign posted near the tank.

Supports: Cement saddles with felt pad liner between the cement and container.

Piping: Properly supported, protected from physical damage, and corrosion. Flexible piping installed to prevent movement and settlement where required. Buried Pipe shall have a minimum of 18 in. of cover.

Electrical Services: No part of an LP tank shall be located in the area 6 feet horizontally from a vertical plane beneath overhead electric power lines that are over 600 volts, nominal. Class I division I within 5ft all directions from transfer connections and division II within 15ft.

Lighting: If operations are conducted in other than daytime hours, an outside security light shall be installed.

Vaporizer: Shall be 15 feet from tank load pipes, 15 feet from container shut off valves, 10 feet from a tank, and 25 feet to a building or line of adjoining property.

Fire Extinguisher: Each industrial plant, bulk plant, and distribution point shall be provided with at least one approved fire extinguisher, minimum capacity of 18 lb. B:C rated dry chemical.

- NFP A 10- All fire extinguishers shall be inspected tested and tagged by a competent company yearly and documentation of such testing kept on record for inspection purposes.

Bonding or Grounding: NFPA 54-Piping systems shall be electrically continuous & bonded.

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE.

Name and official title of Owner or Owner's Authorized Representative

Print:

Signature:

Title:

Date: