

HUMBOLDT STATE UNIVERSITY

Facilities Management

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Standard Operating Procedure: PO006-141013

Title: Use of Propane Tanks

The following regulation shall be utilized by Facilities Management staff to ensure the proper use of campus-owned propane tanks and related equipment.

Prior to using or handling a propane tank, an employee must complete all required safety training related to Liquefied Petroleum Gas Safety and have been approved by their manager for the task being performed. No employee should operate propane-powered tools or equipment without appropriate training.

General Guidelines for Use of Propane Tanks

- Gloves must be worn when connecting or disconnecting propane tanks from equipment.
- Before disconnecting a gas line from a propane tank, ensure the equipment being operated is turned off and then close the propane tank's service valve. Close valves with hand pressure only; never over-tighten or use a wrench on propane tank valves.
- Always handle propane tanks with caution to prevent impacts to the valve and stem assembly.
- Prior to each use, inspect the propane tank for visible damage including excessive rust, dents, and damage to the valve assembly. If a tank is damaged, do not use it. Report any damage to your manager immediately.

Protocol for Filling Propane Tanks

Propane tanks should only be filled by authorized employees who have received specialized training and have been designated by their manager as a qualified propane system operator. Such training shall be provided by the University's designated propane supplier and will include a hands-on demonstration of the tank filling procedure. Per NFPA 58 requirements, refresher training is required every three years. Trained system operators will be issued a certificate of instruction by the company providing training. Records of employee training shall be maintained by Facilities Support Services and stored in an easily accessible location.

When filling propane tanks, employees are required to wear appropriate personal protective equipment per OSHA regulations.

Step-by-Step Procedure for Filling Propane Tanks

Propane tanks must be kept upright during filling. Remove forklift tanks from the forklift and place them upright on the ground before filling.

1. Wear appropriate personal protective equipment as required by OSHA regulations.
2. Connect the fill hose to the propane tank (turn clockwise to tighten).

3. Close the bleed valve on the fill hose (turn clockwise to close). Take extra precaution to ensure the bleed valve is closed as serious injury could result if left open.
4. Open the main supply and return valves on the large tank (turn counter-clockwise to open).
5. Open the 80% liquid overfill valve on the tank being filled (turn counter-clockwise to open). Make sure this valve is open to keep from overfilling the propane tank.
6. Open the fill valve lever on the fill hose (move lever perpendicular to fill hose.)
7. Turn on the pump (switch lever up to the ON position).
8. Fill the propane tank until liquid/vapors appear from the 80% liquid overfill valve on the propane tank being filled, then move the fill valve lever on the fill hose back up to the parallel position and close the 80% liquid overfill. *Danger: Do not fill tank any further after vapors appear from the 80% liquid overfill valve. Failure to follow this procedure could over pressurize the tank.*
9. Turn off the pump (switch lever down to the OFF position).
10. Close the main supply and return valves on the large tank (turn the valves clockwise to close).
11. Open the bleed valve on the fill hose. This will allow stored vapors in hose to be released. When vapors finish bleeding, close the bleed valve.
12. Disconnect the fill hose from the propane tank.

Use of Emergency Pump Shut-Off and Tank Valves

All employees shall be instructed on the proper use of the emergency propane tank shut-off switch and operation of the tank valves.

Inspection of Propane Storage Tank and Filling Area

The Facilities Management propane storage tank shall be inspected annually by the Chief Engineer and/or Campus Building Official. The tank and surrounding area shall conform to the requirements of OSHA Standard 1910.110 and California Fire Code chapter 61. Inspection reports shall be kept on file and any deficiencies identified in the inspection shall be completed in a timely manner. Any employee that notices potential deficiencies or has concerns about the safety of the propane tank area should report such to their manager immediately.

REFERENCES

- NFPA 58, Liquefied Petroleum Gas Code
- 29 CFR 1910.110 Storage and Handling of Liquefied Petroleum Gases
- California Fire Code Chapter 61 – Liquefied Petroleum Gases
- Cal/OSHA Title 8, Subchapter 4, Article 32, Sections 1740-1743