

# How to use LP-Gas Safely at Construction Sites (Portable Type Cylinders/Tanks)

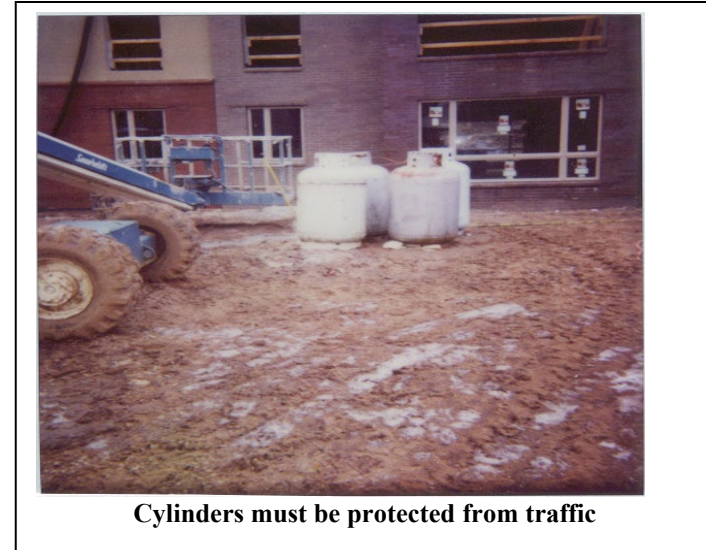
The requirements contained within this bulletin apply to temporary heating and other uses for portable LP-gas cylinders at construction sites not occupied by the public. If there is public occupancy, notify the local enforcement agency as well as the local fire official for permits and inspections of the interior portion only.

\*DCA provides regulatory oversight on all temporary systems utilizing one or more tanks of 250Gal W.C. and engages in enforcement activity pertaining to these systems. DCA shall be notified of all installations that fit the criteria listed and as set forth in N.J.A.C. 5:18- 6.4.



## SAFE CYLINDER STORAGE

- Store and use cylinders in an upright position with protective collars in place.
- Full or empty cylinders not in use should be stored at a specified location outside at ground level and protected against damage or tampering. Make sure cylinder valves are closed and protective caps or collars are in place. A good practice is to plug or cap all cylinder valves when not in use.

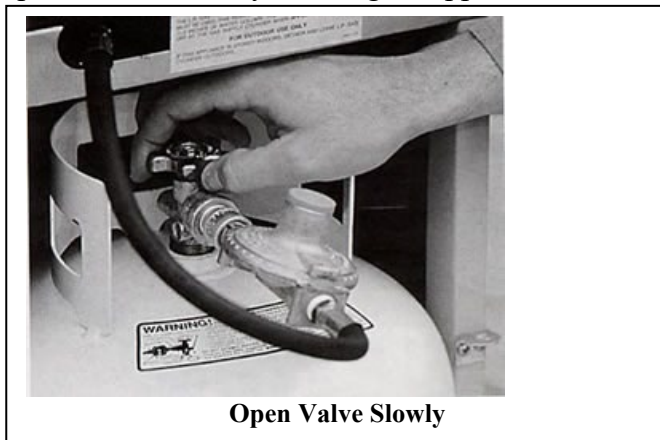


**Cylinders must be protected from traffic**

## SAFE CYLINDER USE

- When used inside, maximum cylinder size should be 100 lbs. of LP-gas.
- Do not connect more than (3) 100 lb. cylinders of LP-gas to one manifold inside a building. If more than one manifold is required, separate these manifolds by at least 20 feet.

- Do not drop cylinders. Make sure the cylinder valve is closed and the protective collar is in place before moving any cylinder. A good practice is to plug or cap the cylinder valve before it is moved or when it is not in use.
- If a cylinder requires no separation distance from a building, hoses can be utilized from the tank to the heater; If the cylinder requires a separation distance, then the piping shall be made of rigid material from the tank to the building.
- Regulators inside of buildings shall be vented to the outdoors unless the regulator has a vent limiting device.
- Check all cylinder connections for leaks with a suitable leak detector solution. (Do not use a soap solution as some soaps contain corrosive elements)  
**DO NOT USE AN OPEN FLAME!**
- To prevent premature closure of excess flow valves, open the cylinder valve slowly. After the pressure has been equalized, the valves should be opened to its full flow position without using excessive force. If an excess flow valve closes repeatedly in normal operations, contact your LP-gas supplier.



**Open Valve Slowly**

- Forcing the valve handwheel while opening and closing the valve may loosen the valve bonnet assembly, cause a hazardous leak, or damage the valve seat.

- Make sure cylinders are located or secured to prevent tipping. The effects of thawing ice or frozen ground should be anticipated.



**Tanks need to be placed on firm stable earth and be protected from construction vehicle traffic**

### **SAFE TANK USE**

- Tanks must be located outside of the building, a sufficient distance from property lines and the building in accordance with NFPA 58 6.4.
- Tanks must be placed on stable ground. The effects of freezing and thawing ground must be considered when locating the tank.
- Tanks shall be located and sufficiently protected to prevent impact by construction vehicles. Temporary barriers are acceptable at construction sites. (Water-filled or Concrete- No Cones)
- Piping associated with the tank shall be rigid piping up to the building. Flexible piping may be used within the building. Piping must be protected from vehicle impact and properly supported. **HOSES ARE NOT PERMITTED TO BE USED OUTSIDE OF THE BUILDING!**

- All Regulator point of discharge shall be pointed down, if installed horizontally then it should be piped down.
- A second stage regulator point of discharge shall be located not less than 5 ft from any source of ignition including appliances, direct vent openings(sealed combustion) or mechanical ventilation intakes.
- Regulators inside of buildings shall be vented to the outdoors unless the regulator has a vent limiting device.
- Combustible material must not be stored within 10 feet of the tank.
- Check all tank connections for leaks with a suitable leak detector solution. (Do not use a soap solution as some soaps contain corrosive elements)  
DO NOT USE AN OPEN FLAME!
- To prevent premature closure of excess flow valves, open the cylinder valve slowly. After the pressure has been equalized, the valves should be opened to its full flow position without using excessive force. If an excess flow valve closes repeatedly in normal operations, contact your LP-gas supplier.

### USING HEATERS AND SALAMANDERS

- Do not use heaters or salamanders in areas where they may ignite combustible materials.
- Do not operate a heater or salamander in an unventilated area. Make sure there is sufficient air both for combustion and to prevent potential harmful levels of product of combustion from accumulating.
- Use only heaters or salamanders equipped with 100% safety shut off valves.



### GENERAL SAFETY TIPS

- LP-gas containers are available for vapor or liquid withdrawal service. Vapor withdrawal containers are of the prevalent type for heater or salamander service, but certain specialized applications such as some tar kettles, generators, vaporizers, high capacity heaters etc. require “liquid” withdrawal containers. CAUTION: The two types of containers are not interchangeable.
- To protect against leakage from an accidental break in the piping or hose, the container valves must be protected with an excess flow valve either internally or in the containers valve outlet connector. Check and verify the existence of an excess flow valve where required.
- Care must be taken in the proper selection of the gas regulators and their sizing based on the job requirements. The failure to protect gas regulators from adverse weather conditions as well as from building materials such as concrete, plaster, tar, etc. could affect their safe operation and can result in property damage or personal injury. Care must also be given to the protection and the proper positioning of the regulator vent for the same reasons.
- When the job or assignment is complete, and prior to shutting off the gas appliance, the gas should be turned off at the container valve so that the hose or piping is drained.
- All containers (as well as container valves, regulators, and caps) should be kept clean of all foreign materials such as concrete, plaster, tar, ice, etc.
- **\* Installations, alterations, or repairs to equipment must be made only by a CETP certified LPG marketer, Master Plumber, Licensed HVACR contractor, and Propane Service Certificate holders.**
- In addition to the specific points covered above, all installations and equipment used should comply fully with NFPA No. 58, “Standard for the Storage and

Handling of Liquefied Petroleum Gases,” N.J.A.C.  
5:18, as well as applicable OSHA rules.

**\*Note: A temporary LPG system deemed for  
emergency or critical use can be filled and operated  
prior to an inspection and approval.**

If you have any questions, please contact either your Municipal  
Building Department or:

The New Jersey Department of Community Affairs

LP-Gas Safety Unit

P.O. Box 821

Trenton, NJ 08625 – 0821

Phone: (609) 984-4257

□