

## Forklift Cylinder Storage Safety Guide

### Responsibilities of Licensee Providing Cylinders

- Form 501 submitted to the Rail Road Commission

### Basic Distance Requirements

- 5 feet from doorway or opening in a building frequented by the public—two means of egress
- 10 feet from doorway in a building with one means of egress
- 20 feet from automotive service station dispenser**
- 10 feet between containers and loose or piled combustible material and weeds, long, dry grass, or source of ignition
- Storage inside building not frequented by public—maximum allowed in location is 9-33.3lb cylinders. If more than one storage location—same building, same floor, 300 feet separation.

### Protection

- Cylinders must be located to minimize excessive rise in temperature, physical damage, or tampering.
- Lockable ventilated metal locker or rack.
- Pressure release valves must communicate with vapor space.
- Valve protection required—caps or collars—and cylinder outlets' valves must be closed and plugged, or capped.

### Signage

- NO SMOKING (red letters), white or aluminum background, LP-GAS or PROPANE, FLAMMABLE, all letters minimum 1 ¼ high.
- A warning label shall be applied to all cylinders 4.2 lbs to 100 lbs LP-gas capacity and not filled on site. Label shall include information on the potential hazards or LP-gas.

### Vehicular Protection

- 1. Guard railing, or  
2. Guard posts 3" schedule 40 steel pipe, not more than 4 feet apart, anchored in concrete at least 30" below ground and 30" above ground. Effective 2/1/08—for new installations, guard posts shall be installed **a minimum of 18" from each storage rack.**
- If guard posts not anchored in concrete—minimum schedule 40 steel pipe capped on top and attached by welding a minimum 8"x 8" steel plate at least ½" thick. Must be permanently installed. Effective 2/1/08—for new installations, guard posts must be at least 18" from each storage rack.
- Guard rails or guard posts are not required if:
  - 1) Rack is located a minimum 48" behind a concrete curb or wheel stop that is minimum 5" above grade or

2) Rack is located a minimum 48" behind a concrete curb or wheel stop that is a minimum 4" above grade and a 4" concrete wheel stop that is installed at least 12" from the 4" high curb or first 4" high wheel stop.

- All wheel stops must be secured against displacement.
- Commission may require additional protection if exceptional circumstances exist.
- NO cylinder storage permitted on roof.

#### **Certifications**

- DOT cylinders with an expired re-qualification date shall not be re-filled until they are re-qualified.
- Cylinder pressure relief valves in industrial truck service (including forklift truck cylinders) must be replaced within 12 years of the date of manufacture of the cylinder and every 10 years thereafter.
- Pressure relief valve of industrial truck cylinders must be provided with a protective cap.
- Maintenance

#### **Fire Extinguisher**

- Where aggregate quantity of stored propane is in excess of 720 lb, must have minimum 18 lb B-C rating within 50 feet of storage.