
PERMIT SUBMITTAL CHECKLIST

PROPANE CAGE

Submittal Process: The Following items are required for a propane cage plan review submittal.

The installation of the exchange cage shall be in accordance with the adopted International Fire Code (IFC) with local amendments and NFPA 58, 2023 Edition.

- ✓ Storage is limited to two cages, containing up to 18 20-pound propane cylinders in each cage (720 pounds total) without any separation from a structure. Additional cages may be installed next to a structure on the same property provided increased separation is maintained between the cages pursuant to IFC requirements.
- ✓ A site plan for the installation shall be submitted to The Office of the Fire Marshal. The site plan shall indicate the size(s) and location(s) of the propane exchange cage(s), as well as the separation distances between cages, the distances to property lines, structures, building openings and public ways.
- ✓ Propane exchange cages shall be located in a manner that minimizes exposure to excessive temperature rise, physical damage and tampering.
- ✓ Propane exchange cages shall not be located within 10 feet of any doorway or opening in a building frequented by the public, within 20 feet of a motor vehicle fuel dispenser, or within 10 feet of any combustible material.
- ✓ The cage shall be a lockable, ventilated, metal locker or rack that prevents tampering and pilferage.
- ✓ The cage shall be designed so that containers cannot be stacked on top of each other and designed so that containers are positioned upright with the pressure-relief valve in direct communication with the vapor space of the container.
- ✓ Container outlet valves shall be closed and plugged when in storage.
- ✓ Defective containers or containers showing denting, bulging or excessive corrosion shall be removed from service and properly disposed.
- ✓ The cage and area shall be kept free and clear of all combustible materials, including storage, for a distance of at least 10 feet on all sides.
- ✓ NO SMOKING signs shall be posted on the exchange cage and within 25 feet of the surrounding area.
- ✓ An approved NFPA 704 hazard identification sign/placard shall be posted on the cage. The NFPA 704 sign shall be a minimum of one foot square.

- ✓ Signs listing exchange procedures, company name and 24-hour emergency phone numbers shall be posted within 10 feet of the cage.
- ✓ Signs requiring that customers leave LPG containers outside the building shall be posted on the building entrance(s). The signs shall read "DO NOT BRING LP GAS CYLINDERS INTO THE BUILDING". The fire district requires that the lettering be a minimum of 1 inch in height with a minimum stroke of 1/8 inch.
- ✓ All employees with access to the exchange cage shall be trained in the proper handling and operating procedures, including the procedure for handling defective containers. Documentation of this training shall be provided to The Office of The Fire Marshal at the time of final inspection.
- ✓ A written inspection checklist for receiving empty containers as well as giving out full cylinders shall be available and used by employees when handling containers.
- ✓ Provisions shall be made for controlling and mitigating unauthorized discharges. A Hazardous Materials Management Plan shall be readily available on site.
- ✓ A minimum of one 2A:20-BC fire extinguisher shall be located within 75 feet, but not less than 25 feet from the cage area.
- ✓ Propane exchange cages exposed to probable vehicular damage due to proximity to alleys, driveways or parking areas shall minimally be protected as follows:
 - Install 4-inch diameter steel pipes filled with concrete.
 - Pipes shall be spaced no more than 4 feet apart.
 - Pipes shall be set at least 3 feet deep in a concrete footing and be at least 15 inches in diameter.
 - The tops of posts shall be at least 3 feet above the ground.
 - Posts shall be located more than 5 feet from the propane exchange cage.

DOCUMENTATION:

Fire Department Permit must be posted. The manager of the facility is responsible to come in and apply for the permit and for seeing that all items are in compliance with this checklist. Failure to comply with any item will void the permit. All Documentation and Employee Training Hazardous Materials Management Plan shall be readily available on site. Hazardous Materials Management Plan shall be readily available on site. Chemical Inventory Report shall be readily available on-site Material Safety Data Sheets (MSDS) shall be readily available on site. Written cylinder exchange procedures shall be readily available on site.

EMPLOYEE TRAINING:

All employees shall be trained in proper handling and operating procedures, which the employer shall document. All employees shall carry written certification of their job

qualification and function authorized to perform. The attendant's primary function shall be to supervise, observe and control the dispensing of flammable/combustible liquids while they are being dispensed, giving immediate attention to accidental spills.

Responsible persons shall be designated and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses and identification of the locations where the propane cage(s) is(are) located and shall have access to Material Safety Data Sheets and be knowledgeable in the site emergency response procedures. Provisions shall be made for controlling and mitigating unauthorized discharges. Unauthorized releases must be immediately reported to the fire department. Only trained employees shall be allowed to physically unlock the cage and exchange containers for customers.

LOCATION:

Portable LPG containers over 2-1/2 pounds shall not be stored in buildings accessible to public. Location of the cage shall be at least 20 ft. from any exit AND 5 feet from any doorway, or the building. Multiple locations of cages are allowed on site only when space is available to separate each cage by 100 feet. Precautions shall be taken against vehicular damage. Bollards shall be:

- Constructed of steel not less than 4 inches and filled with concrete.
- Spaced not more than 48 inches between posts.
- Set not less than 36 inches deep in a 15-inch diameter concrete footer.
- Set with the top of post not less than 36 inches above ground.
- Spaced not less than 60 inches from the cage or rack. Combustible materials shall be kept not less than 10 feet from LPG containers. This includes newspaper racks, firewood piles and other combustibles. Storage of incompatible hazardous materials shall be segregated by a distance of not less than 20 feet. This includes fossil fuel dispensers. Location must minimize exposure to excessive temperature rise, physical damage or tampering.

CONTAINERS:

Quantities of containers shall be limited to not more than 20 full containers.

Containers shall be stored within a lockable ventilated metal cage or rack that prevents tampering and pilferage. Containers shall be positioned (upright) with the pressure-relief valve in direct communication with the vapor space of the container.

Container valves shall be protected by screw-on-type caps or collars. Container outlet valves shall be closed AND plugged. Containers showing physical damage such as serious denting, bulging, gouging, or excessive corrosion shall be removed from service and not replace.

Defective containers and tanks shall be removed from service, repaired or disposed of in an approved manner. A DOT approved label saying "LIQUEFIED PETROLEUM GAS, UN 1075,

FLAMMABLE" shall be applied to all tanks. An approved warning label shall be applied to all containers.

SIGNAGE:

No Smoking is allowed within 25 feet. Signs shall be properly posted.

Approved NFPA 704 hazard identification signs shall be properly posted (1-4-0) on the propane cage or rack.

Signs listing exchange procedures, company name and 24 hr. phone number shall be properly posted.

Signs asking customers to leave LPG containers outside shall be posted at building entrance.

FIRE PROTECTION:

Fire extinguisher shall have a minimum capacity of 18 lb. dry chemical with a B:C rating (min. 120 B:C). It shall be located no closer than 5 feet to the cage or rack nor further than 75 feet.

MISCELLANEOUS:

Written inspection checklist for taking in empty cylinders shall include:

PROTECTIVE COLLAR IN PLACE

MANUAL SHUTOFF VALVE CLOSED

SAFETY VALVE OK. NO BENT VALVES OR THREADS DAMAGED.

POL PLUG INSTALLED IN THE VALVE OUTLET

CYLINDER: NO FIRE DAMAGE, DENTS, BULGES, GOUGES,
PUNCTURES, PIN HOLES, CORROSION, RUST or PITTING.

Written inspection checklist for giving out full cylinders shall include:

MANUAL SHUTOFF VALVE CLOSED.

POL PLUG INSTALLED IN VALVE OUTLET.

DOT CONTAINER LABEL (LIQUEFIED PETROLEUM GAS, UN 1075 FLAMMABLE) IN PLACE.

CYLINDER WARNING LABEL IN PLACE.

The cage is designed for up to twelve horizontal forklift containers of 33.5lbs each (if applicable).