

Propane On Job Sites

Propane's portability makes it a valuable fuel for powering a variety of equipment on job sites. Yet there are important safety considerations that must be communicated to your employees.

CONTAINER PLACEMENT

Propane containers on job sites may be necessary, yet they cannot be placed just anywhere. Carefully read the following guidelines for placement of both temporary and permanent propane containers.

TEMPORARY CONTAINERS

According to the American Society of Mechanical Engineers (ASME), stationary containers between 125 and 500 gallons w.c. (water capacity) must be kept at least 10 feet from all ignition sources, combustible materials (such as lumber), building vents or air intake points, property lines of adjacent sites that can be built upon, and key buildings, including the structure being built.

- Containers larger than 500 gallons w.c. should be at least 25 feet from property lines.
- Smaller Department of Transportation (DOT) stationary cylinders filled on-site must be 10 feet away from ignition sources and air intakes.

PERMANENT CONTAINERS

The size of your propane container determines the distance your container must remain from other hazards. Typically, containers require at least 10 feet of clearance from buildings. Other factors — such as parking lots or railroad tracks — can also affect the placement of a container. Your propane supplier can ensure propane container distance requirements are adhered to when installing a propane container in any location.

Some General Guidelines Are:

- Any ASME container which can be filled on-site must be located so the filling connection and fixed liquid level gauge are at least 10 feet from any external ignition sources (air conditioners, equipment, open flames, etc.), intakes for direct vented gas appliances, or intakes to mechanical ventilation systems.
- Weeds, brush, trash, and any combustible material should be kept at least 10 feet from propane containers, in all directions.
- For underground containers, minimum distances should be measured from the relief valve and filling/level gauge vent. No part of an underground container shall come within 10 feet of a building or property line which could be built upon.
- Any structure near a container should be made of noncombustible materials.

These are general safety guidelines. Always check with local authorities to ensure you're following all federal, state, and local safety codes.

MOVING CONTAINERS

As a project progresses, these distances may change, requiring you to move your propane container. Check with your propane supplier before moving stationary ASME containers around a job site or development. The local authority having jurisdiction, general contractor, or propane supplier may have additional requirements as to where the container can be placed and if it must be secured. Refer to NFPA 58 for more information on proper container placement.

PREVENTING CONTAINER DAMAGE & TAMPERING

Propane containers can be damaged by moving equipment and materials on job sites. If a propane container is dented, turn off the gas supply valve and contact your propane supplier, who can thoroughly inspect and replace the container if necessary. To lower the risk of damage and ensure continued, safe use, store portable cylinders and ASME containers upright on a flat, stable, and fireproof base. Portable cylinders and containers may need to be secured with an anchoring system. You should also consider crash protection to prevent vehicle damage. Cylinders should have caps and collars as well.



USING PROPANE HEATERS INDOORS

Propane heaters not only keep the space warm so your crew can work safely and efficiently, they can also remove moisture from the air that hinders critical project tasks such as curing concrete, drying paint, and setting drywall.

Follow the manufacturer's instructions and applicable codes to ensure the heater is the proper distance away from the propane cylinder it's connected to, as well as other heaters and cylinders. Consider putting sawhorses over the hose to protect it as it runs from the heater to the cylinder.

Below are a few examples of code requirements pertaining to propane-powered temporary construction heat:

- Place heaters at least six feet from any propane cylinder.
- Direct heaters designed to be cylinder-mounted away from the cylinder. If more than one such heater is used on the same level of a project, they should be separated by at least 20 feet.
- Do not point a blower or radiant heater toward a cylinder that's within 20 feet.
- Cylinders manifolded together to supply a single heater should not exceed 735 pounds w.c. (300-lb. propane capacity).
- Only propane containers under 245 pounds w.c. (100-lb. propane capacity) should be used indoors.

Always refer to building codes and manufacturers' instructions for more information on safely handling, using, and storing propane containers for temporary heat in buildings under construction.

SUPPLYING PROJECTS WITH PROPANE

Many projects aren't large enough to safely bring propane containers indoors. In those cases, the gas supply should be piped into the project to protect the feed and ensure consistent output. Portable DOT cylinders must be kept at least three feet horizontally away from the building opening below the level of discharge of the pressure relief valve, while ASME containers of less than 125 gallons w.c. must be kept at least five feet away. In both cases, containers can be located against the building to avoid a tripping hazard created by running the hose across an open area.

FOR MORE INFORMATION

Keep your workforce safe and your job sites productive with the propane and construction safety resources available at **Propane.com**.

THE PROPANE EDUCATION & RESEARCH COUNCIL was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source.

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