

# Suburban Safety Tips for Cylinder Dock Sales - Trades

**READ AND PROVIDE THIS IMPORTANT SAFETY INFORMATION TO ALL END USERS!**

Llame 1-888-223-0029 para información sobre los avisos de seguridad en español

## WHAT IS PROPANE?

Propane (also called LPG-Liquefied Petroleum Gas or LP-Gas) is a liquid fuel stored under pressure. In most systems, propane is vaporized to a gas before it leaves the tank. Propane is highly flammable when mixed with air (oxygen) and can be ignited by many sources, including open flames, smoking materials, electrical sparks, and static electricity. Severe "freeze burn" or frostbite can result if propane liquid comes in contact with your skin.



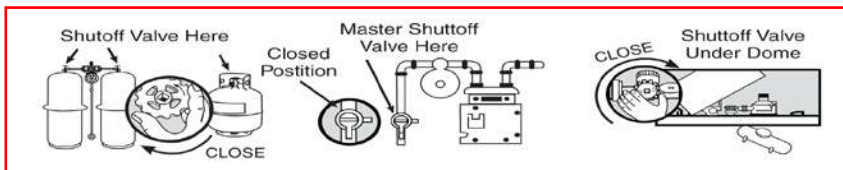
## IF YOU SMELL, HEAR OR SEE GAS

- 1. NO FLAMES OR SPARKS!** Immediately put out all smoking materials and other open flames. Do not operate lights, appliances, telephones, or cell phones. Flames or sparks from these sources can trigger an explosion or fire.
- 2. LEAVE THE AREA IMMEDIATELY!** Get everyone out of the building or area where you suspect gas is leaking.
- 3. SHUT OFF THE GAS.** Turn off the main gas supply valve on the propane tank if it is safe to do so. To close the valve, turn it to the right (clockwise).
- 4. REPORT THE LEAK.** Once you are safely away from the gas leak, call 911 or your local fire department.
- 5. DO NOT RETURN TO THE BUILDING OR AREA** until responders determine that it is safe to do so.
- 6. GET THE SYSTEM CHECKED.** Before you attempt to use any propane appliances, your propane retailer or a qualified professional must check your entire system to ensure it is leak-free.

## EQUIPMENT AWARENESS



**KNOW HOW TO SHUT OFF THE GAS SUPPLY.** Know where the gas supply shutoff valve to the premises valve is located. Tank and cylinder valves must be turned to the right (in a clockwise direction) to stop the flow of gas.



**CHECK THE SYSTEM REGULARLY.** Regulators must be protected so their operation will not be affected by the elements (freezing rain, sleet, snow, ice, mud or debris). Regulator vent should be pointed down. Do not create building openings or place sources of ignition within the area of propane equipment.

**MANUFACTURER'S INSTRUCTIONS.** Keep and comply with manufacturer's operating and maintenance instructions. Contact the equipment manufacturer for replacement instructions, if needed. Read and carefully follow the guidance set forth by the manufacturer's equipment used with cylinders being transported.

**MAKE SURE BUILDING OPENINGS ARE NOT CREATED AND SOURCES OF IGNITION ARE NOT SITUATED WITHIN THE AREA OF PROPANE TANKS, REGULATORS, METERS AND OTHER PROPANE EQUIPMENT.**



**HIGHWAY TRANSPORTATION OF DOT CYLINDERS:**

- Persons who transport propane shall be trained in proper handling procedures. Training shall be documented and refresher training provided every 3 years unless otherwise required by the authority having jurisdiction.
- Individual cylinders must have propane capacity less than 420 lbs.
- Cylinder valves shall comply with the following:
  - Valves of cylinders shall be protected with either a ventilated cap or a ventilated collar. Screw-on-type protecting caps or collars shall be secured in place.
  - Valve outlets on cylinders of 45 lbs propane capacity or less shall be equipped with a redundant pressure-tight seal or a listed quick-connect coupling. Where seals are used, they shall be in place whenever the cylinder is not connected for use.
- The cargo space of the vehicle shall be isolated from the driver's compartment, the engine, and its exhaust system. Open-bodied vehicles shall be considered to be in compliance with this provision.
  - Closed-bodied vehicles having separate cargo, driver, and engine compartments shall also be considered to be in compliance with this provision.
  - Closed-bodied vehicles such as passenger cars, vans, and station wagons shall not be used for transporting more than 90 lbs aggregate propane capacity, and not more than 45 lbs propane capacity per cylinder unless the driver and engine compartments are separated from the cargo space by a vapor-tight partition that contains no means of access to the cargo space.
- Cylinders and valves shall be determined to be leak-free before being loaded into vehicles.
- Cylinders shall be loaded into vehicles with flat floors or equipped with racks for holding cylinders.
- Cylinders shall be fastened in position to minimize the possibility of movement, tipping, and physical damage.
- Cylinders being transported by vehicles shall be positioned in accordance with the table below:

<b>Orientation of Cylinders on Vehicles</b>		
<b>Capacity of cylinder (lbs)</b>	<b>Open Vehicles</b>	<b>Enclosed Spaces of Vehicles</b>
less than or equal to 45	Any position	N/A
Greater than 45	Relief valve in communication with the Vapor Space of the cylinder	N/A
Less than or equal to 4.2	N/A	Any position
Greater than 4.2	N/A	Relief valve in communication with the Vapor Space of the cylinder

- Vehicles transporting cylinders where the total weight is more than 1000 lbs, including the weight of the LP-Gas and the cylinders, shall be placarded as required by DOT regulations and/or state law.
- When being transported, cylinders shall be marked and labeled in accordance with DOT regulations 49 CFR.

**TRANSPORTATION OF ASME TANK(S)**

Only Suburban personnel may transport ASME tanks. Contact your local Customer Service Center for coordination of ASME tank moves.



## CHECKING FOR LEAKS:

After assembly of cylinder(s) and outdoor equipment, piping and hose assembly, entire system (including hose) shall be tested and proven free of leaks. Test for leaks at the cylinder service valve connection after every cylinder change out. Use non-corrosive leak detection fluid. Do not use matches. Follow NFPA 54 regulations for Pressure and Leak Check requirements on systems other than Construction Site or Trade uses.



## DOT CYLINDER STORAGE:

### LOCATION GENERAL

- Cylinders in storage shall be located to minimize exposure to excessive temperature rises, physical damage and/or tampering.
- Cylinders in storage shall be positioned so that the pressure relief valve is in direct communication with the vapor space of the cylinder.
- Cylinders shall not be stored on roofs.
- Cylinders shall not be stored indoors

### LOCATION OUTSIDE OF BUILDINGS

Cylinders awaiting use shall be stored outside of buildings, as follows:

- At least 5 ft from any doorway or opening in a building frequented by the public where occupants have at least two means of egress as defined by NFPA 101, Life Safety Code.
- At least 10 ft from any doorway or opening in a building or sections of a building that has only one means of egress.
- At least 20 ft from any automotive service station fuel dispenser.
- Distances from cylinders in outdoor storage and exposures shall be in accordance the following table:

Distances from Cylinders in Outdoor Storage and Exposures			
Quantity of LP Gas Stored (lb.)	Horizontal distance to Exposure* (ft)		
	1* and 2*	3* and 4*	5*
<or = 720	0	0	5
721 to 2500	0	10	10
2501 to 6000	10	10	10
6001 to 10,000	20	20	20
> 10,000	25	25	25

#### Exposure Description\*

- 1 – Nearest Important building or group of buildings
  - 2 – Line of adjoining property that can be built upon
  - 3- Busy thoroughfare or sidewalks on other than private property
  - 4 – Line or adjoining property occupied by schools, churches, hospitals, athletic fields, or other points of public gathering
  - 5 – Dispensing station
- Where LP-Gas and one or more other compressed gases are to be stored or used in the same area, the propane cylinders shall be marked “Flammable” and either “LP-GAS” or “Propane” or shall be marked in accordance with the requirements of DOT regulations, 49 CFR.

## PROTECTION OF CYLINDERS

Cylinders at a location open to the public shall be protected by either of the following:

- An enclosure in accordance with at least a 6 ft high industrial-type fence, chain link fence, or equivalent protection.
  - There shall be at least two means of emergency egress from the enclosure except as follows:
    - The fenced or otherwise enclosed area is not over 100 sq ft.
    - Containers are not filled within the enclosure.
  - Clearance of at least a 3 ft path to the point of egress.
  - Fencing shall not be required where devices are provided that can be locked in place and prevent unauthorized operation of valves, equipment, and appurtenances.
- A lockable ventilated enclosure of metal exterior construction.

## PROTECTION AGAINST VEHICLE IMPACT

Cylinders in storage must be protected from vehicle impact. Examples of such protection could be the following:

- Guard rails
- Steel bollards
- Raised sidewalks

Where the provisions above are impractical at construction sites or at buildings or structures undergoing major renovation or repairs, alternative storage of cylinders shall be acceptable to the authority having jurisdiction.

## PROTECTION OF VALVES ON CYLINDERS IN STORAGE

Cylinder valves shall be protected as follows:

- Cylinders of 420 lbs propane capacity or less shall incorporate protection against physical damage to cylinder appurtenances and immediate connections to such appurtenances when not in use by either of the following means:
  - A ventilated cap
  - A ventilated collar
- Valve outlets on cylinders of 45 lbs propane capacity or less shall be equipped with a redundant pressure-tight seal or a listed quick-connect coupling. Where seals are used, they shall be in place whenever the cylinder is not connected for use.
- Screw-on-type caps or collars shall be in place on all cylinders stored, regardless of whether they are full, partially full, or empty, and cylinder outlet valves shall be closed.



## FIRE PROTECTION

- DOT cylinder storage locations, where the aggregate quantity of propane stored is in excess of 720 lbs, shall be provided with at least one approved portable fire extinguisher having a minimum capacity of 18 lbs dry chemical with B:C rating.
- The required fire extinguisher shall be located no more than 50 ft from the storage location.
- LP-Gas fires shall not be extinguished until the source of the burning gas has been shut off.



## CAN YOU SMELL IT?

Propane smells like rotten eggs, a skunk's spray, or a dead animal, or garbage. Some people may have difficulty smelling propane. Causes may include age (older people have a less sensitive sense of smell); medical conditions; such as colds, allergies, or sinus congestion; the effects of medication, alcohol, tobacco, or drugs; tobacco smoke, cooking odors, musty or damp smells and other strong odors. Consider purchasing a propane gas detector as an additional measure of security.

A propane smell may not wake up someone who is sleeping. It may also be in the area of the building where it may not be detected, such as a basement, attic or garage.



**ODOR LOSS** is an unintended reduction in the concentration of the odor of propane, making it more difficult to smell. Situations that can cause odor loss include the presence of air, water or rust in a propane tank or cylinder; passage of leaking propane through soil; or the exposure to building materials, masonry or fabrics.

**SINCE THERE IS A POSSIBILITY OF ODOR LOSS OR PROBLEMS WITH YOUR SENSE OF SMELL, YOU SHOULD RESPOND IMMEDIATELY TO EVEN A FAINT ODOR OF GAS.**

To learn what propane smells like, customers unfamiliar with that smell should call Suburban's Safety Information Request Center 1-888-223-0029 and order the pamphlets called "Important Propane Safety Information for You and Your Family" and/or an expansive "Propane Safety" booklet to obtain a Scratch and Sniff Test, free of charge.



## **PROPANE GAS DETECTORS ARE RECOMMENDED**

Under some circumstances, you might not smell a gas leak. Propane gas detectors are designed to sound an alarm if they sense propane in the air, even if the odorant cannot be detected. Suburban recommends the installation of UL-listed propane gas detectors in basements and where recommended by the manufacturer to provide an additional warning of the presence of propane. They can provide an additional measure of security in structures with little-used areas and for individuals who have difficulty smelling propane.



**GUIDELINES** regarding propane gas detectors:

- Buy only units that are listed by Underwriters Laboratories (UL).
- Follow the manufacturer's instructions regarding installation and maintenance.
- If a detector is sounding an alarm, treat it as an emergency and act immediately, even if you do not smell propane.
- Never ignore the smell of propane, even if no detector is sounding an alarm.



## **CARBON MONOXIDE AND YOUR SAFETY**

### **WHAT IS CARBON MONOXIDE (CO)?**

You can't taste or smell CO, but it is a very dangerous gas, produced when any fuel burns. High levels of CO can come from appliances that are not operating correctly, or from a venting system or chimney that becomes blocked.

**CO CAN BE DEADLY!** High levels of CO can make you dizzy or sick (see below). In extreme cases, CO can cause brain damage or death.

### **Symptoms of CO poisoning include:**

- Headache
- Shortness of breath
- Fatigue
- Dizziness
- Nausea



### **IF YOU SUSPECT CO IS PRESENT, ACT IMMEDIATELY!**

1. Get everyone out of the building and call 911 or your local fire department.
2. If it is safe to do so, open windows to allow entry of fresh air, and turn off any appliances you suspect may be releasing CO.



## TO HELP REDUCE THE RISK OF CO POISONING:

- Have a qualified professional check your propane system appliances and related venting systems annually, preferably before heating season begins.
- Suburban recommends the installation, use and maintenance of UL-listed carbon monoxide detectors in accordance with manufacturer's instructions.
- Keep chimneys, flues and vents free of snow, ice and debris such as leaves and animal nests.
- Never use a gas oven or range-top burners to provide space heating.
- Never use portable heaters indoors unless they are designed and approved for indoor use.
- Never use a barbecue grill (propane or charcoal) indoors for cooking or heating.
- Regularly check your appliance exhaust vents for blockage.
- Always open the chimney flue damper when you use your fireplace.
- Always follow the manufacturer's instruction for placement and use of vent-free appliances, including fireplaces and logs.
- Never run an internal combustion engine such a car, lawn mower, generator or snow blower in enclosed areas like a garage.

## SIGNS OF IMPROPER APPLIANCE OPERATION THAT CAN GENERATE HIGH CO LEVELS:

- Sooting, especially on appliances and vents.
- Unfamiliar or burning odor.
- Increased moisture inside of windows.
- Yellow flames.



## LIGHTING PILOT LIGHTS

IF A PILOT LIGHT REPEATEDLY GOES OUT or is very difficult to light, there may be a safety problem. **DO NOT** try to fix the problem yourself. **IT IS STRONGLY RECOMMENDED** that only a **QUALIFIED PROFESSIONAL** light any pilot light that has gone out.

**YOU ARE TAKING THE RISK** of starting a fire or an explosion if you light a pilot light yourself.

## APPLIANCE MAINTENANCE



**LEAVE IT TO THE EXPERTS.** Only a qualified professional has the training to install, connect, disconnect, inspect, service, maintain, and repair propane equipment and piping. Have your appliances and propane system inspected just before the start of each heating season.

**HELP YOUR APPLIANCES "BREATHE."** Check the vents of your appliances to be sure that flue gases can flow easily to the outdoors; clear away any insect or bird nests or other debris. Also, clear the area around your appliances so plenty of air can reach the burner for proper combustion.

**DO NOT TRY TO MODIFY OR REPAIR** valves, regulators, connectors, controls, or other appliance and cylinder/tank parts. Doing so creates the risk of a gas leak that can result in property damage, serious injury, or death.

**HAVE OLDER APPLIANCE CONNECTORS INSPECTED.** Certain older appliance connectors may crack or break, causing a gas leak. If you have an older appliance, have a qualified professional inspect the connector. Do not do this yourself, as movement of the appliance might damage the connector and cause a leak.



**FLAMMABLE VAPORS ARE A SAFETY HAZARD.** The pilot light on a propane appliance can ignite vapors from gasoline, paint thinners, and other flammable liquids. Be sure to store flammable liquids outdoors or in an area of the building containing no propane appliances.



**DON'T RISK IT!** If you cannot operate any part of the propane system, or if you think an appliance or other device is not working right, call a qualified professional for assistance.

**GAS CAN LEAK THROUGH AN OPEN GAS LINE.** If you disconnect an appliance from a gas line or are otherwise aware of an open gas line, be sure to contact your propane retailer or qualified professional to close, cap or plug the open gas line.



### **RUNNING OUT OF GAS**

**DON'T RUN OUT OF GAS. SERIOUS SAFETY HAZARDS, INCLUDING FIRE OR EXPLOSION CAN RESULT.**

- If your propane tank runs out of gas, any pilot lights on your appliances will go out. This can be extremely dangerous.
- **A LEAK CHECK IS REQUIRED.** Many states require the propane system to be checked for leaks before turning on the gas. Contact your propane retailer or a qualified professional to perform a leak check and turn on the gas.



**Never turn the gas on at your propane tank. Contact your propane retailer or a qualified professional to check for leaks, turn on the gas, and to re-light pilot lights on the appliances.**



### **BE PREPARED FOR WEATHER-RELATED AND OTHER EMERGENCIES**

**FLOODING** – If a flood is predicted for your area or gas-fired appliance(s) or equipment has been submerged due to flooding:

- **Turn off the gas** valve at the container or cylinder.
- **DO NOT** turn the gas back on until a qualified professional has checked the system.

**HEAVY SNOW OR ICE** – Heavy accumulations of snow or ice falling from roof eaves on regulators, piping, tubing and valves may cause damage that could result in a gas leak. Regulator vents must remain clear of snow and ice to operate properly.

Check the regulator vents on the propane system to be sure they are free of condensation, which if frozen, could cause a malfunction. If a regulator vent is clogged with ice or snow, contact Propane Retailer immediately. Appliance vents, chimneys and flues must be kept clear of snow and ice so appliances may vent properly, especially on roofs of mobile homes. For installations in areas of heavy snowfall, arrange for the protection of piping, regulators, meters and other equipment installed in the piping system from the forces of accumulated snow or ice. A protective cover or structure may be an appropriate form of protection in some circumstances, and is required in some jurisdictions. Contact your local building or fire official for guidance.

When removing snow:

- Use care around tanks, piping, tubing, valves, regulators and other equipment to prevent damage
- Use a broom instead of a shovel.
- Do not shovel snow from roofs onto propane equipment. The weight could damage propane equipment causing a leak.

**KNOW WHERE UNDERGROUND GAS LINES AND TANKS ARE LOCATED** on your construction site to avoid damaging them when digging or working. Notify your propane supplier before you dig. Contact your State's "Call Before You Dig or One Call" by dialing 811.



### **FURTHER PROPANE SAFETY INFORMATION**

We urge you to visit [www.suburbanpropane.com](http://www.suburbanpropane.com) for Consumer Safety Information prepared by the Propane Education & Research Council (PERC). Pamphlets called "Important Propane Safety information for You and Your Family," "Important Propane Safety Information for Users of Small Cylinders" (including cylinder transportation, storage and inspection procedures), an expansive "Propane Safety" booklet, Carbon Monoxide Safety Information, weather/natural disaster information, and a Propane Safety Data Sheet (SDS) may be read and downloaded online. Some of these documents are also available free of charge by calling Suburban at 1-888-223-0029.