

### Safety Meetings are important!

They: get your employees actively involved  
encourage safety awareness  
help identify problems before they become accidents  
motivate employees to follow proper safety procedures

**We are happy to provide you with a monthly topic for your agenda.**

### ROUTE TO:

- General Manager
- Safety Coordinator
- Supervisor Dept. \_\_\_\_\_
- Other \_\_\_\_\_
- Date of Meeting \_\_\_\_\_

### April 2022

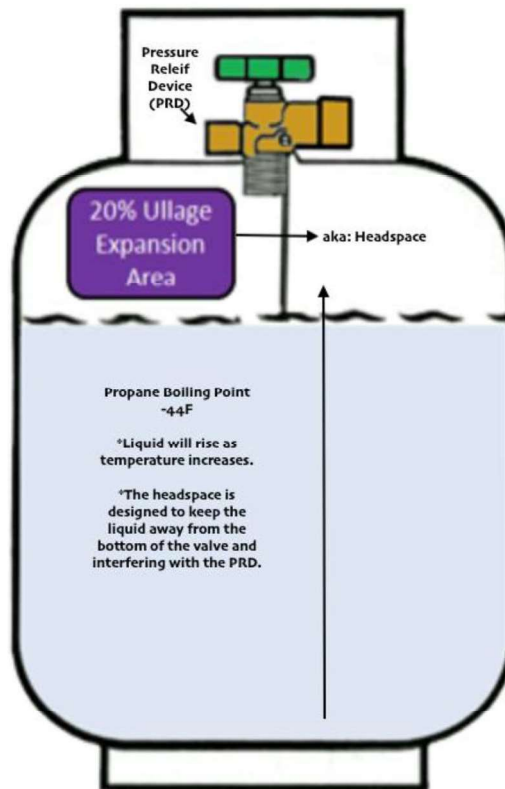
- LPG Filling, Transportation and Storage
- Training
- GAWDA Sample Safety Practices

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### LPG Filling, Transportation and Storage

This month is a good time to review Propane safety, before the warm weather sets in and the demand for small propane cylinders increases. There are five safety issues with propane that I'd like to remind you of this month.

1. Cylinder Overfilling - Propane liquid expands 270 times when vaporizing into a gas. If cylinders are overfilled the liquid will expand into the headspace and potentially into the PRD



2. Cylinder Overfilling and Spit Filling - Propane gas is colorless, heavier than air and will pool in low places; if a source of ignition comes into contact with the propane gas (e.g. spark, cigarette butt, static electricity) it could ignite.
3. Cylinders Storage - Propane cylinders should Never be stored upside down. The regulations state the safety relief valve (PRD) must be in contact with the gas vapor NOT the liquid. Placing propane cylinders upside down to designate them as “empty” is a violation of the regulations and if the cylinder were to vent, it would release liquid. The liquid would then expand 270x into a gas phase, this would occupy a much greater area thus expanding fire hazard much further.

If the PRD was unable to release the liquid, then the pressure would continue to increase until the welded seams (or any weakened area on the cylinder) would catastrophically rupture.

Cylinders, empty or full, at your facility or at a customer site, must be stored in an upright position - UNLESS the cylinders are stored in racks with employees trained to place the cylinders into the racks with the PRD pointed up.

Cylinder on the left = PRD in liquid phase space.  
Cylinder on right = PRD in vapor phase space.



4. Cylinder Storage - Consider storing propane in small separated groups; because in the event of a fire emergency, smaller groups of cylinders would be easier to handle than large groups/ or groups that are not separated.

Cylinders should be stored in dry areas, away from sources of ignition/heat and combustibles. Not as in this picture.



5. Cylinder Transportation by Customers - Propane cylinders should be transported secured, in open vehicles, NEVER in automobile trucks. GAWDA has safety posters about consumer transporting compressed cylinders available on the website/ shop GAWDA products/ safety poster

## Training

OSHA requires employees to be trained for the jobs they perform. This is a good time to review your operating procedures (SOP) with your fillers to see if the procedures should be updated or if the filler needs refresher training. If your company does not have pre-fill, fill and storage procedures, this is a good time to create them.

DOT requires employees filling cylinders to be trained, tested and certified every 3 years. This falls under the "Function Specific" training requirements in 172.704.

Training may be found:

- Propane and Education Research Council
- Propane training services, inc.
- CETP
- Your bulk propane supplier



Other resources noted:

GAWDA members only documents

CGA S-8 "Guideline for the Safe Handling of Liquefied Petroleum Gas Cylinders."

NFPA 58 "Liquefied Petroleum Gas Code." 2020 edition.

Quora.com, Hahn, Eric, elgas.com.au/blog. Nov 21, 2015.

### **GAWDA Sample Safety Practice**

Driver Distractions Personal Communication Devices (1-2022) is a document that can provide the basis to have a tool box talk with anyone that drives a vehicle for your company (company owned or personal vehicle) or a reminder to review your company policy on cell phones and other electronic devices that distract drivers.

This document can be found on the GAWDA website in the [Members Only Sample Safety Practice folder](#) under Driver Distractions Personal Communication Devices.

If you have any questions on Propane safety or any other OSHA, EPA, DHS issue, please contact me.

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