

**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 \_\_\_\_\_

**March 2024****Cylinder Safety: Segregation and Securement  
Lessons Learned: Load Securement****Cylinder Safety: Segregation and Securement**

This month's topic is a great Safety meeting/ Toolbox talk for your company. OSHA adopted NFPA and CGA standards for cylinder segregation and securement; meaning compressed gas manufacturers and distributors are allowed to NEST cylinders if they choose not to Chain, Strap or Otherwise Secure the cylinders. All other industries must comply with the regulations and may NOT nest cylinders.

However, nesting remains a challenge in our industry. Some of the arguments against nesting are:

1. it takes too long to pull a cylinder out of a pile
2. it takes up too much real estate on the dock
3. I'm more likely to pinch my fingers if cylinders are nested rather than in rows

Have you heard of any of these?

There are some areas where the regulations allow us to make our own choices; for instance, the use of cylinder carts vs. "rolling" cylinders is a policy choice for each company to make. But the only alternative to chaining, strapping or otherwise securing cylinders is to nest them.

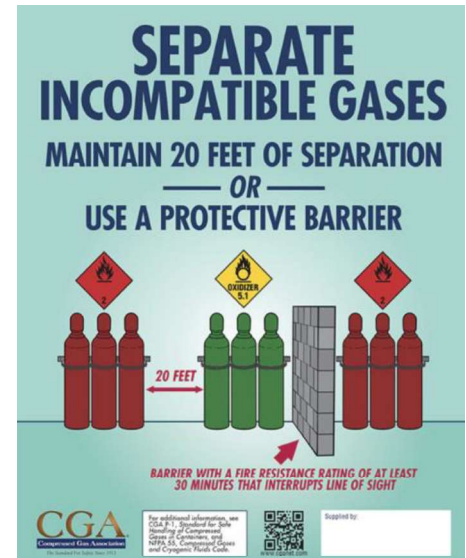
Your employees are required to be trained on proper nesting techniques and CGA has a great poster ([SP-2](#)) that illustrates proper nesting (three sides touching), NOT lined up rank and file like soldiers. This technique prevents a dangerous domino effect - if one cylinder happens to be knocked over the rest will stay upright.



(courtesy of CGAnet.com)



As important as cylinder securement is product segregation. Flammables and oxidizers, poison inhalation hazards, corrosives and other types of hazards must be separated. The most common segregation that gas distributors must employ is for flammables and oxidizers. The regulations state that flammables and oxidizers must be separated by 20 ft or a 5-ft 1/2 hour rated firewall - remember the fire triangle: if you have a fuel (flammable gas) and a source of oxygen (oxidizing gas), then all you need is heat/source of ignition and you will have a fire or explosion at your facility.



(courtesy of CGAnet.com)

What could be that source of ignition? One source could be static electricity. Static electricity is prevalent in winter when the moisture in the air is very low. Static electricity is often associated with plastic products. Another source could be non-explosion rated electrical switches. For instance the storage of flammables and oxidizers on a dock where the electrical switches are not explosion proof. Or tools that have the ability to create a spark; for example, a ferrous (iron) wrench used at a propane filling area.



(courtesy of space.stackexchange.com)



**Lessons Learned:** *GAWDA members share their experiences in their own words*

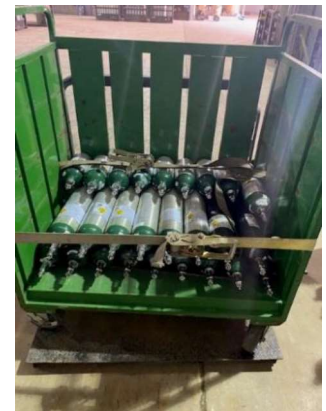
## Load Securement and Covering Your Assets

How many times have you witnessed a service truck, pickup, trailer (small or large), or semi with loose or improperly secured cargo? Maybe you have even seen a piece of loose cargo bounce off a vehicle presenting a hazard to motorists or pedestrians. The incident below describes such an event.

A GAWDA member company driver was traveling along the highway when a medical E oxygen tank dislodged from a cart. The cylinder fell off the truck and struck another vehicle causing damage to the vehicle.



The investigation determined the cause of this incident to be improper load securement. The cylinders were not properly secured with straps contacting the cylinder body. Additionally, the cart was not equipped with a front panel to prevent the cylinders from slipping off the cart. If a cart without a top and side panel is used, it is a best practice to cover the openings by securing a solid surface or tarp. This is in addition to the straps used to secure the cylinders to the cart. Routinely inspect straps for tightness between delivery stops, since straps tend to become loose during transit.



**Lessons Learned** in this event, stress the importance of adequate load securement and ensuring the load is secured by verifying at each stop through routine travel segments.



If you have any questions about this article or other EPA, DHS, OSHA questions, please contact Marilyn Dempsey.

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