



Weekly Safety Meeting

Your Safety Is Our Business®

Volume 2, Issue 5

February 1st, 2015

Compressed Gas Safety

Compressed gas cylinders contain a great deal of energy. If the cylinders are mishandled or treated roughly, that energy can burst into an explosion – especially if the shut-off valve isn't covered. Some cylinders commonly found in the workplace are restraining up to two tons of pressure. If the cylinder ruptures or if the valve breaks off, that pressure is released suddenly and destructively. We've all seen a balloon fly around the room when the air is suddenly released. Imagine this same thing happening with a heavy metal cylinder! Pieces of the broken cylinder can also shoot through the air like bullets.

One more hazard of a compressed gas cylinder is that it may contain a highly flammable substance such as acetylene or it may contain oxygen which can cause a fire to accelerate out of control.

Many gases we work with present special dangers:

- Toxic gases like Carbon Monoxide and Phosgene can be poisonous.
- Many gases are flammable and can be ignited by sparks or other ignition sources.
- Oxidizers, like Fluorine and Oxygen, can also cause fires and explosions.
- Corrosives, such as Chlorine, can burn the skin and cause other damage.
- Some gases, such as Nitrogen and Helium, can push breathable air completely out of a room.

Moving Cylinders:

- Use a cylinder cart and secure cylinders with a chain.
- Don't use the protective valve caps for moving or lifting cylinders.
- Don't drop cylinders, permit them to strike each other violently, or be handled roughly.
- Unless cylinders are secured on a special cart, regulators shall be removed, valves closed, and protective valve caps in place before cylinders are moved.

Use of Cylinders:

- Be sure all connections are tight.
- Use soapy water to locate leaks.
- Keep cylinders valves, regulators, couplings, hose, and apparatus clean and free of oil and grease.
- Keep cylinders away from open flames and sources of heat. Propane cylinders should be at least 8 feet away from the portable heaters they supply.
- Safety devices and valves shall not be tampered with nor repairs attempted.
- Use flashback arrestors and reverse-flow check valves to prevent flashback when using oxy-fuel systems.
- Regulators shall be removed when moving cylinders, when work is completed, and when cylinders are empty.
- Cylinders shall be used and stored in an upright position.



- The cylinder valve should always be opened slowly. Always stand away from the face and back of the gauge when opening the cylinder valve.
- When a special wrench is required to open a cylinder or manifold valve, the wrench shall be left in place on the valve stem when in use; this precaution is taken so the gas supply can be shut off quickly in case of an emergency and that nothing shall be placed on top of a cylinder that may damage the safety device or interfere with the quick closing of the valve.
- Fire extinguishing equipment should be readily available when combustible materials can be exposed to welding or cutting operations using compressed cylinder gases.

Things Not To Do:

- Never roll a cylinder to move it.
- Never carry a cylinder by the valve.
- Never leave an open cylinder unattended.
- Never leave a cylinder unsecured.
- Never force improper attachments on to the wrong cylinder.
- Never grease or oil the regulator, valve, or fittings of an oxygen cylinder.
- Never refill a cylinder.
- Never use a flame to locate gas leaks.
- Never attempt to mix gases in a cylinder.
- Never discard pressurized cylinders in the normal trash.

The lethal potential of compressed gas cylinders should never be underestimated. Their high pressure contents can turn them into bombs, projectiles, and sources of toxic fumes. Even when gas cylinders are empty they pose possible danger if improperly handled or stored.

Make safety a reality...don't be a fatality!!



Safety Meeting Sign-In Sheet

Supervisor:	Subject:
Location:	Date:
Conducted By:	Trainer Signature:

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests