SAFETY UNLIMITED, INC.

Weekly Safety Meeting

Compressed Gas Cylinder 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.

Understanding the Hazards:

While each type of compressed gas has its own hazards, most are flammable, explosive, toxic, or a combination of these types. Some common kinds of compressed gas include acetylene, ammonia, carbon dioxide, chlorine, fluorine, hydrogen and oxygen. Remind your employees to read the label on the cylinder and the safety data sheet (SDS) for safety information.

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.

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- 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.

Other Precautions:

- Never mix gases in a cylinder or try to refill a cylinder (contact the supplier).
- If a cylinder leaks or a valve is broken, tag the cylinder and contact a trained maintenance person or the supplier.
- NEVER smoke around a compressed gas cylinder.
- Don't use the recessed top of the cylinder as a storage area for tools or material.

Summary:

The most important considerations when dealing with compressed gas cylinders are proper physical restraint, personal protection, knowledge of potential hazards and appropriate emergency procedures.

CAUTION…READ, THEN PROCEED!!

Safety Meeting Sign-In Sheet

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

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