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| Training Manual | |
| Subject: Compressed Gas Safety | Number: 5.021 |

I. Overview

Compressed gases are hazardous because they are stored in cylinders and pressure tanks at high pressures. They can also be flammable, poisonous, corrosive, or any combination of these.

II. How can they hurt me?

Mishandling of compressed gases has been responsible for fatalities, serious injuries, and property damage that have amounted to millions of dollars.

1. Flammable compressed gases can:
 - a. Explode if handled roughly or exposed to heat
 - b. Ignite by heat, sparks, or flames
 - c. Flash back if vapors travel to a source of ignition
 - d. Produce irritating or poisonous gas when burning
2. Non-flammable compressed gases can:
 - a. Explode when in a mixture with fuels.

III. Health Effects of Compressed Gases

1. Compressed gases:
 - a. Are harmful if inhaled
 - b. Have extremely irritating vapors
 - c. Can cause cryogenic burns to skin and eyes
 - d. Produces irritating or poisonous gas when burning
 - e. Causes dizziness, unconsciousness, or suffocation

IV. Handling compressed gas cylinders

Compressed gas cylinders require careful handling to prevent damage. When handling cylinders:

1. Move cylinders (securely fastened, in as near an upright position as possible) on special hand trucks
2. Don't drop or bang cylinders together
3. Don't roll, drag, or slide cylinders and never use cylinders as rollers or supports
4. Don't lift cylinders by their caps
5. Don't use magnets to lift cylinders
6. Cradles or platforms can be used to lift cylinders only if the cylinder was manufactured with lifting attachments

V. Compressed Gas Storage

Some general guidelines in storing compressed gas cylinders include:

1. Store cylinders in an upright position

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2. Store the cylinders in a safe, dry, well-ventilated place that is clean and free of combustible material
3. Avoiding areas where cylinders can be knocked down or damaged
4. Store the cylinders in a position that ensures that the safety relief device is always in direct contact with the cylinder's vapor space.
5. Store oxygen compressed gas canisters at least 20 feet from flammables or combustibles, or separate them by a 5 foot, fire-resistant barrier

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