

# Compressed Gas Cylinders Safety Policy

This is an example of a compressed gas safety policy for a client whose operations include welding. Oxygen and acetylene tanks are in use and in storage at this client's facility.

## 1.0 Purpose:

To establish the requirements for the safe handling and storage of compressed gas cylinders.

## 2.0 Reference:

[OSHA 29 CFR 1910.253 CGA Pamphlet P-1](#)

## 3.0 Scope:

This policy covers all *City of Montpelier* employees, contractors, vendors, and visitors that handle and store compressed gas cylinders.

## 4.0 Administration:

This policy is administered by the Safety Coordinators, Operations Supervision, and Maintenance Supervision.

## 5.0 Definitions:

OSHA - Occupational Safety and Health Act

## 6.0 Description:

### General

Compressed gases present unique hazards. Depending on the particular gas there is a potential for simultaneous exposure to both mechanical and chemical hazards. Gases may be:

- Flammable or combustible
- Explosive
- Corrosive
- Poisonous
- Or a combination of hazards

The pressure in a compressed gas cylinder can cause the cylinder to become a “rocket” if the valve stem is damaged.

### Identification

The contents of any compressed gas cylinder must be clearly identified. The identification should be stenciled or stamped on the cylinder itself. Compressed gas cylinders that are missing a label and whose contents cannot be identified shall be reported to safety immediately.

Never rely on the color of the cylinder for identification. Cylinder colors vary from supplier to supplier. Signs shall be posted in areas where flammable compressed gases are stored stating “NO SMOKING”

### Inspection

Each employee shall perform a visual inspection of the cylinder before use. Work areas shall perform periodic inspections to ensure that compressed gas cylinders under their control are in a safe condition.

## **Handling & Use**

The following rules for using and handling compressed gas cylinders shall be followed at all times:

- Gas cylinders must be secured at all times to prevent tipping.
- Cylinders may be attached to bench top, individually to a wall, and or placed in a holding cage.
- Chains or sturdy straps must be used to secure the cylinder.
- If a leaking cylinder is discovered it should be reported to a supervisor or safety officer immediately.
- Under no circumstances should employees attempt to repair a cylinder or valve.
- Cylinders should be placed with the valve accessible at all times.
- Cylinder valves should be closed whenever not in use or unattended.
- Valve handles should remain on the valve stem at all times when the cylinder is in use.
- Cylinder valves should be opened slowly. Oxygen cylinders should be opened all the way as they have a back-seating valve.
- When opening the valve on a cylinder the user should position the cylinder with the valve pointing away from them and others nearby
- When a cylinder is empty the regulator must be removed and the cylinder must be capped.
- Always use PPE for the task or material you are working with when handling compressed gas cylinders.

## **Storage**

The following rules for storing compressed gas cylinders shall be followed at all times:

- Cylinders containing flammable gases such as hydrogen or acetylene must not be stored in close proximity to open flames, areas where electrical sparks are generated, or where other sources of ignition might be present.
- Compressed gas cylinders must not be stored next to elevators, stairwells, or in aisles/walkways.
- Oxygen cylinders, full or empty, must not be stored in the same vicinity as flammable gases (including acetylene). The proper storage of oxygen cylinders requires a minimum of 20 feet between flammable gas cylinders or the areas be separated, at a minimum, by a firewall 5 feet high with a fire rating of 0.5 hours.
- Greasy and oily materials must never be stored around oxygen cylinders and fittings must never be greased or oiled.
- Empty and full cylinders should be stored in separate areas.
- Acetylene cylinders should never be stored on their side

## **Transporting**

The following rules for transporting compressed gas cylinders shall be followed at all times:

- Cylinders should not be subject to rough handling or abuse
- Cylinder caps must be in place to protect the valve assembly
- Cylinders should not be rolled or dragged
- Cylinders should be properly strapped or chained to designed carts or trucks
- Only one cylinder should be handled at a time

## **7.0 Responsibilities:**

### **Safety Coordinators:**

- Prepare and maintain the *City of Montpelier* compressed gas cylinder safety program.

### **Department Heads:**

- Coordinate the development and implementation of training programs for initial and refresher training.

### **Supervision:**

- Be knowledgeable about the requirements of the *City of Montpelier* compressed gas cylinder safety program.
- Ensure that employees in their area(s) of concern participate in training programs related to the compressed gas cylinder safety.
- Ensure that appropriate compressed gas cylinder-related work practices are followed.

### **Contractors:**

- Complying with all Federal OSHA standards, as they pertain to compressed gas safety, while working on *City of Montpelier* property.
- The Project Engineer or other *City of Montpelier* representative bringing the contractor onto *City* property is primarily responsible for assuring that these criteria are met.

## **8.0 Training:**

All employees whose job responsibility requires them to handle compressed gas cylinders shall be trained in compressed gas cylinder safety initially upon assignment. The training shall include:

- Cylinder Identification
- Cylinder Inspection
- Cylinder Handling and Use
- Cylinder Storage
- Cylinder Transportation

## **9.0 Revision:**

The Safety Coordinators have accountability to review and revise the program annually.

## 10.0 Learning Exercise:

1. True False - Compressed gas cylinders can become a rocket if the valve becomes damaged.
2. True False - The color of a cylinder identifies what is in it.
3. True False - Gas cylinders must be secured at all times to prevent tipping.
4. True False - Cylinder valves should be closed whenever not in use or unattended.
5. True False - Oxygen and acetylene can be stored next to each other.

**Answers:**

- 1. True**
- 2. False**
- 3. True**
- 4. True**
- 5. False**