

*Hazard Review*

- **Hazardous fumes/vapors/gasses**
- **Explosion, fire**

*Related Safe Work Practices*

- **Fire Safety**
- **Fuel Safety**
- **Hazardous Materials**

*Authority*

- **CCR Title 8 Section 1740**

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## STORING PRESSURIZED CYLINDERS

1. Always store pressurized cylinders in the upright position, safely secured in a rack and by chains.
2. Ensure that valves on pressurized cylinders are turned off when not in use.
3. The pressurized cylinders shall be stored in designated areas posted with a sign identifying the contents and a sign reading "Danger - No Smoking or Open Flames."
4. Pressurized cylinders shall be protected against undue absorption of heat. Keep them out of direct sunlight or from under space heaters.
5. Oxygen cylinders shall never be stored near highly combustible materials, especially oil and grease, near other fuel gas cylinders or near reserve stocks of carbide and acetylene (including acetylene generators) unless separated by a suitable fire wall.
6. Oxygen cylinders in storage must be separated from fuel gas cylinders a distance of 20 feet or by a 30 minute fire wall - a noncombustible barrier- 5 feet high.
7. Empty cylinders shall be stored in the same manner as pressurized cylinders.

## USING PRESSURIZED CYLINDERS

# Compressed Gas Cylinders

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1. When handling pressurized cylinders, ensure that safety caps are securely fastened on bottles. Always install the cap provided when moving pressurized cylinders or when not in use.
2. Treat pressurized cylinders with respect, as if they were full.
3. Do not allow oil or grease to contact oxygen cylinders, valves, regulators, or other fittings.
4. Pressurized cylinders in portable service shall be conveyed by suitable hand trucks onto which the cylinders are securely fastened. Pressurized cylinders in service shall be securely held in substantial racks, or placed so they will not fall or be knocked over. Valve caps will always be securely fastened to the top when moving or storing cylinders.
5. **EXCEPTION:** When it is not practical to convey cylinders in hand trucks, or to transport racks to the point of operation, (as in some construction work) cylinders may be carried in, and properly secured in a manner to prevent their falling over.
6. Pressurized cylinders transported by crane, hoist, or derrick must be handled in suitable cradles, nets, or skip boxes, and shall **never** be lifted by magnet, rope, or chain slings.
7. Pressurized cylinders must **not** be placed where they might form a part of any electric circuit.
8. **No** attempt shall be made to transfer acetylene from one cylinder to another, or to mix gasses in a cylinder.
9. **Never** use leaking equipment.
10. **Never** use oxygen from a system without a pressure regulation device.
11. Locate cylinders out of range of sparks and hot slag from welding and cutting.
12. Valve stem wrenches must be left in place while cylinders are in use.
13. The use of regulators or automatic pressure-reducing valves shall be limited to the pressure and the types of gases for which they were designed.
14. Fuel gas hose and oxygen hose shall be easily distinguished from each other.

# Compressed Gas Cylinders

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15. Hoses shall be maintained so that cracks, breaks and wearing are minimized. Any damaged hoses will be replaced and disposed of **immediately**.
16. A back flow check valve will be in place on each hose, either at the torch or regulator, for combustible fuel rigs.
17. A single hose having more than one gas passage shall **not** be permitted as a connection between torch and gas outlet, if a wall failure would permit the flow of one gas into the other passage.
18. Hoses used for liquefied petroleum gas, such as butane or propane, shall be made of, or lined with, materials that are resistant to the action of LP-Gas. They shall be designed for a bursting pressure of at least 1,250 psi, and shall be marked every five feet with the letters "LPG" (See Liquefied Petroleum Gases Safety Orders for other regulations).
19. No device permitting mixture of air or oxygen with combustible gases shall be allowed unless approved for this purpose. (an example of an exception would be at the burner, in a standard torch or blowpipe).

## TRANSPORTING PRESSURIZED CYLINDERS

1. Hazardous gas cylinders must be transported directly from the gas supplier to the end user storage location, unless an exhausted and approved "staging" area has been constructed.
2. Cylinders must never be transported without valve protection caps in place.
3. Never move a cylinder with a regulator attached!
4. Cylinders larger than lecture bottle size should be chained or strapped to a wheeled cart during transport to ensure stability.
5. Transportation of cylinders must be done only by trained personnel using approved trucks.
6. Handle cylinders of compressed gases with the respect that high-energy sources deserve.