

### 30. Cylinder and Gasses Safety

**Air Compressor:** Compressed air can be dangerous to employees and should not be used for cleaning.

- A. Compressor tanks shall be inspected regularly. If there are any rust spots or sharp dents report them to your supervisor immediately.
- B. Compressor tanks shall be equipped with a drainpipe and valve at the lowest point to permit the removal of accumulated oil and water. Compressors in service should be drained routinely at the end of the work week and prior to being stored.
- C. Compressor tanks shall be equipped with a readily visible pressure gauge and with one or more spring-loaded safety valves. Safety valves should ensure receiver pressure does not exceed the maximum working pressure of the receiver by more than 10 percent.
- D. Compressor tanks shall not have any type of valve between the air received and a safety valve(s).
- E. Safety devices shall be constructed, located, and installed so they cannot be easily rendered inoperative or removed.
- F. Safety valves installed on compressors shall be tested at regular intervals to ensure they are in good working condition. Only certified fittings approved for this use shall be used to repair safety valves.

**Liquefied Petroleum/Compressed Gas Safety:**

- A. Liquefied Petroleum (LP) portable containers not in excess of 1,000 pounds water capacity, filled or partially filled and not connected for use, shall be stored so as to minimize exposure to excessive temperature rise, physical damage or tampering by unauthorized personnel. All tanks used for the storage of LP shall conform to the NFPA 58 standard.
- B. Only portable LP tanks shall be stored inside. If stored inside, they shall not be located near exits, gangways, stairways, or in areas normally used or intended for the safe exit of people and shall conform with storage requirements of IFC Chapter 53.
- C. Container valves shall be closed and recessed or otherwise protected to prevent damage if the cylinder is dropped. Oxygen containers shall have a ventilated cap or collar capable of withstanding a blow from any direction equivalent to a 30-pound weight dropped four (4) feet. All compressed gas cylinders shall be properly secured per IFC 5303.5.
- D. Portable cylinders, used for the storage and shipment of compressed gases, shall be constructed and maintained in accordance with the U.S. Department of Transportation, Code of Federal Regulations 49, Parts 171 through 179.
- E. Compressed gas cylinders inside buildings shall be stored per IFC Chapter 53 and kept away from any source of heat and be in a well-protected, well-ventilated and dry location at least 20 feet from highly combustible materials such as oil, gasoline, paint and electrical appliances.
- F. Empty compressed gas cylinders shall have valves closed and protection caps in place. Any time a cylinder is not connected for use, the valve protection cap shall be in place.
- G. Compressed gas cylinders must be secured before hoisting and transporting. They must be transported in a vertical position with valve protection caps in place and in compliance with Department of transportation (DOT) regulations.
- H. LP storage tanks used as a service station operation shall conform to IFC Chapter 61 (and dispensing requirements of IFC 6105) and shall:
  - 1. Have readily ignitable materials, including weeds and long, dry grass, kept at least ten (10) feet away.
  - 2. Be protected against the flow or accumulation of flammable liquids by diking, diversion curbs or grading.

3. Not to be located within diked areas for flammable liquids.
4. Be protected by crash rails or guards as necessary.
5. Be placed on foundations of substantial masonry or other noncombustible materials.
6. Have conspicuous signs prohibiting smoking (letters not less than four (4) inches high).
7. Have available a portable fire extinguisher having either an ABC or BC rating.
8. Have all electrical equipment and installations conform to WAC-296-800-280.
9. If empty, be stored in the open (outside).

**Oxygen Cylinders:**

- A. All cylinders, including oxygen, shall be stored and used conforming with IFC Chapter 53
- B. Oxygen cylinders shall be stored away from fuel gas or other combustibles a minimum distance of 20 feet or separated by a noncombustible barrier at least five (5) feet high and having a fire-resistance rating of at least one-half hour.
- C. Oxygen cylinders shall be stored and secured valve end up.