

Compressed Air

1. Purpose

The purpose of this policy is to provide the minimum requirements for the use of compressors, compressed air receivers, and other equipment that utilize compressed air for performing operations such as cleaning, drilling, hoisting, and chipping.

2. Scope

This procedure applies to employees and on-site contractors who utilize compressors, compressed air receivers, and other equipment that use compressed air for performing operations such as cleaning, drilling, hoisting, and chipping while working on behalf of USPL. See the Respiratory Protection policy for any questions regarding compressed breathing air.

Additional sections of this safety manual contain related policies and should be consulted for specific requirements and guidance:

- Personal Protective Equipment

3. Minimum Requirements

| | Minimum Requirements | Supporting Documentation |
|----|--|--------------------------|
| 1. | Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment. | Section 5 |
| 3. | Every air receiver shall be equipped with an indicating pressure gauge and with one or more spring-loaded safety relief valves. | Section 5 |
| 4. | All safety relief valves shall be tested at regular intervals to determine whether they are in good operating condition. | Section 6 |

4. Roles and Responsibilities

4.1. Operations Team Leaders & Terminal Managers

- A. Shall implement and enforce the requirements of this policy.

5. General Requirements

- A. Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment.

1. The phrase “reduce to less than 30 psi” means that the downstream pressure of the air at the nozzle (nozzle pressure) or opening of a gun, pipe, cleaning lance, etc., used for cleaning purposes will remain at a pressure level below 30 psi for all static conditions. The requirements for dynamic flow are such that in the case when dead ending occurs, a static pressure at the main orifice shall not exceed 30 psi.
 2. “Effective chip guarding” means any method or equipment which will prevent a chip or particle of whatever size from being blown into the eyes or unbroken skin of the operator or other workers. Effective chip guarding may be separate from the air nozzle as in the case where screens or barriers are used. The use of protective cone air nozzles are acceptable in general for protection of the operator but barriers, baffles or screens may be required to protect other workers if they are exposed to flying chips or particles.
- B. Compressed air shall not be used to clean workers or their clothing.
- C. Installation of all new air receivers shall be constructed in accordance with the 1968 edition of the A.S.M.E. Boiler and Pressure Vessel Code Section VIII.
- D. Air receivers shall be installed such that all drains, handholes, and manholes therein are easily accessible. Under no circumstances shall an air receiver be buried underground or located in an inaccessible place.
- E. A drain pipe and valve shall be installed at the lowest point of every air receiver to provide for the removal of accumulated oil and water. Adequate automatic traps may be installed in addition to drain valves. The drain valve on the air receiver shall be opened and the receiver completely drained frequently and at such intervals as to prevent the accumulation of excessive amounts of liquid in the receiver.
- F. Every air receiver shall be equipped with an indicating pressure gauge (so located as to be readily visible) and with one or more spring-loaded safety relief valves. The total relieving capacity of such safety relief valves shall be such as to prevent pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by more than 10 percent.
1. Generally, no valve of any type can be placed between the air receiver and its safety relief valve or valves. However, the jurisdiction in the state or municipality operating under ASME Code Section VIII may authorize a stop valve between the pressure-relieving device and the unfired pressure vessel.
 2. Safety appliances, such as safety relief valves, indicating devices and controlling devices, shall be constructed, located, and installed so that they cannot be readily rendered inoperative by any means, including the elements.

6. Maintenance

- A. All safety relief valves shall be tested at regular intervals to determine whether they are in good operating condition. See Standard Maintenance Procedure USPL-MAN-730-010,

7. References

1. OSHA Regulations, 29 CFR 1910.242. Hand and portable powered tools and equipment, general.
2. OSHA Regulations, 29 CFR 1910.169. Air receivers.
3. USPL-MAN-730-010, Pressure Relief Valves, Small Spring Operated, Thermal and Rupture Disks, Inspection & Maintenance Procedure.