

OREGON OCCUPATIONAL SAFETY & HEALTH CODE

This is an interim codebook section for :

**OAR 437, DIVISION 2, (29 CFR 1910)
GENERAL OCCUPATIONAL SAFETY & HEALTH RULES**

SUBDIVISION M:

**COMPRESSED GAS & COMPRESSED
AIR EQUIPMENT
1910.166 & 437-002-0210**

**OREGON OCCUPATIONAL SAFETY & HEALTH DIVISION
(OR-OSHA)
DEPARTMENT OF CONSUMER & BUSINESS SERVICES
SALEM, OREGON 97310**

AO 4 -1997

The Oregon Department of Consumer and Business Services adopted these rules pursuant to ORS 654.025(2).

The Secretary of State Designated OAR Chapter 437 as the “Oregon Occupational Safety and Health Code.” Six general subject areas within this code are designated as “Divisions.”

- **Division 1** General Administrative Rules
- **Division 2** General Occupational Safety and Health Rules
- **Division 3** Construction
- **Division 4** Agriculture
- **Division 5** Maritime Activities
- **Division 6** Forest Activities
- **Oregon Revised Statutes (ORS)** 654 The Oregon Safe Employment Act (OSEAct)

Oregon-initiated rules in this division of the Oregon Occupational Safety and Health Code are numbered in a uniform system developed by the Secretary of State. This system does not number the rules in sequence (001, 002, 003, etc.). Omitted numbers may be assigned to new rules at the time of their adoption.

Oregon-initiated rules are arranged in the following Basic Codification Structure adopted by the Secretary of State for Oregon Administrative Rules (OAR):

Chapter	Division	Rule	Section	Subsection	Paragraphs
437	002	0322	(1)	(a)	(A)(i)(I)

The majority of Oregon OSHA codes are adopted by reference from the Code of Federal Regulations (CFR), and are arranged in the following basic federal numbering system:

Chapter	Division	Part	Subpart (Subdivision)	Section	Paragraphs
437	002	1910	S	.303	(a)

The terms “subdivision” and “subpart” are synonymous within OAR 437, Oregon Occupational Safety and Health Code.

To obtain an order form or copies of these codes, address:

**Department of Consumer & Business Services
Oregon Occupational Safety & Health Division (OR-OSHA)
350 Winter St. NE, Room 430
Salem, OR 97301-3882**

Or call the OR-OSHA Resource Library at 503-378-3272

The rules referenced in this division are available for viewing in the Office of the Secretary of State, Administrative Rules and Office Document Section, Oregon State Archives Building, Salem, Oregon 97310, or the Central Office, Oregon Occupational Safety and Health Division of the Department of Consumer and Business Services, Room 430, 350 Winter St. NE Salem, OR 97301-3882. Please visit our web site at: www.orosha.org

NOTE: The following federal standards have been adopted by reference into OAR 437, **Division 2/M, Compressed Gas and Compressed Air Equipment**, by OR-OSHA Admin. Order 10-1993, filed 7/29/93, **EFFECTIVE 9/15/93**.

Division 2/M, Compressed Gas and Compressed Air Equipment (29 CFR 1910.166 through 1910.171), replaces former Oregon Division 62, Compressed Gas, Compressed Air Equipment and Pressure Vessels.

Oregon OSHA adopted by reference corrections and technical amendments issued by federal OSHA and published in the Federal Register. Federal OSHA made simple corrections, deleted redundant provisions, and clarified and reorganized various other provisions throughout the standards. OR-OSHA Admin. Order 4-1997 filed 4/2/97, effective 4/2/97.

OAR 437-002-0200 is the Oregon-initiated rule which adopts by reference the federal standards in Division 2/M. A small number of Oregon rules on Air and Gas Compressors, and Pipe Systems have been retained as OAR 437-002-0210.

Oregon-initiated rules which have been be retained are printed *in italics* in proximity to related federal rules.

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OAR 437, DIVISION 2

GENERAL OCCUPATIONAL SAFETY AND HEALTH RULES

SUBDIVISION M – COMPRESSED GAS AND COMPRESSED AIR EQUIPMENT

NOTE: The Oregon-initiated rule number and heading are shown in the following rule only to show where these rules are printed (in proximity to related federal standards) in the final printed codebook.

***437-002-0200 Adoption by Reference.** In addition to, and not in lieu of, any other safety and health codes contained in OAR Chapter 437, the Department adopts by reference the following federal rules as printed in the Code of Federal Regulations, 29 CFR 1910, revised as of 7/1/96, and any subsequent amendments published in the Federal Register as listed below:*

Compressed Gas and Compressed Air Equipment.

- (1)** 29 CFR 1910.166 **(Reserved).**
- (2)** 29 CFR 1910.167 **(Reserved).**
- (3)** 29 CFR 1910.168 **(Reserved).**
- (4)** 29 CFR 1910.169 **Air receivers**, published 6/27/74, Federal Register, vol. 39, p. 23502; amended 2/10/84, FR vol. 49, p. 5322; 3/7/96, FR vo. 61, no. 46, p. 9239.

437-002-0210 Additional Oregon Rules for Compressed Air and Compressed Gas Equipment.

These rules are available at the Oregon Occupational Safety and Health Division, Oregon Department of Consumer and Business Services, and the United States Government Printing Office.

Stat. Auth.: OAR 654.025(2) and ORS 656.726(3).

Stats. Implemented: ORS 654.001 through 654.295.

Hist.: OR-OSHA Admin. Order 10-1993, f. 7/29/93, ef. 9/15/93.
OR-OSHA Admin. Order 4-1997, f. 4/2/97, ef. 4/2/97.

SUBDIVISION M

COMPRESSED GAS AND COMPRESSED AIR EQUIPMENT

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), 9-83 (48 FR 35736), or 1-90 (55 FR 9033), as applicable.

§§1910.166 - 1910.168 [Reserved]

§1910.169 AIR RECEIVERS.

NOTE: The Oregon Building Codes Agency (Boiler and Pressure Vessel Section) is the authority for Boilers and Pressure Vessels as defined in Oregon Boiler Pressure Vessel Law, as noted in ORS 480.510.

(a) General requirements.

(1) Application. This section applies to compressed air receivers, and other equipment used in providing and utilizing compressed air for performing operations such as cleaning, drilling, hoisting, and chipping. On the other hand, however, this section does not deal with the special problems created by using compressed air to convey materials nor the problems created when men work in compressed air as in tunnels and caissons. This section is not intended to apply to compressed air machinery and equipment used on transportation vehicles such as steam railroad cars, electric railway cars, and automotive equipment.

(2) New and existing equipment.

(i) All new air receivers installed after the effective date of these regulations shall be constructed in accordance with the 1968 edition of the A.S.M.E. Boiler and Pressure Vessel Code Section VIII, which is incorporated by reference as specified in §1910.6.

(ii) All safety valves used shall be constructed, installed, and maintained in accordance with the A.S.M.E. Boiler and Pressure Vessel Code, Section VIII Edition 1968.

(b) Installation and equipment requirements.

(1) Installation. Air receivers shall be so installed 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.

(2) Drains and traps. 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.

(3) Gages and valves.

(i) Every air receiver shall be equipped with an indicating pressure gage (so located as to be readily visible) and with one or more spring-loaded safety valves. The total relieving capacity of such safety 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.

(ii) No valve of any type shall be placed between the air receiver and its safety valve or valves.

(iii) Safety appliances, such as safety 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.

(iv) All safety valves shall be tested frequently and at regular intervals to determine whether they are in good operating condition.

[39 FR 23502, June 27, 1974, as amended at 49 FR 5322, Feb. 10, 1984; 61 FR 9239, Mar. 7, 1996]

Stat. Auth.: OAR 654.025(2) and ORS 656.726(3).

Stats. Implemented: ORS 654.001 through 654.295.

Hist.: OR-OSHA Admin. Order 10-1993, f. 7/29/93, ef. 9/15/93.

OR-OSHA Admin. Order 4-1997, f. 4/2/97, ef. 4/2/97.

437-002-0210 Additional Oregon Rules for Compressed Air and Compressed Gas Equipment.***(1) Air & Gas Compressors – General.***

(a) Workers shall not use compressed gases to clean clothing which is being worn nor shall it be intentionally directed at any other person.

***NOTE:** Use of compressed air for cleaning work and work areas is also prohibited except under special conditions. See OAR 437, Division 2/P, Hand and Portable Powered Tools & Other Hand-held Equipment.*

(b) Hose connections shall be securely made and maintained in safe working condition. Effective means shall be used to prevent hose from whipping.

Hist.: WCB Admin. Order, Safety 8-1976, f. 4/20/76, ef. 7/1/76.

(2) Piping Systems.

(a) All piping systems and their component parts which are installed to carry air, steam, or other material at more than atmospheric pressure shall be of adequate design and strength to safely withstand pressures to be placed upon them without the resulting stresses exceeding the allowable stress for the material used in their construction. The allowable stresses to be used shall be determined by referring to recognized standards for material and design as developed by the American National Standards Institute.

Hist.: WCB Admin. Order, Safety 8-1976, f. 4/20/76, ef. 7/1/76.

(b) The only non-metallic pipe acceptable for pressure line service with gaseous substances is that which is recommended and listed by its manufacturer as designed for compressed air or gas service.

(A) PVC pipe can only be used for compressed air if it is buried or encased.

(c) All compressed air or gas piping systems which use plastic pipe must be “project specific”; that is, designed by a competent person to specifications suited for a particular application or project.

(A) Design and operational specifications and information must be kept with the system for as long as it is in use.

(d) Only a competent person(s) may install any compressed air or gas piping system described in (b) and (c) above.

(3) *High Temperature Piping.*

(a) All steam and other high temperature pipe lines within seven feet of the floor or work platform or passageway shall be covered with non-combustible insulating material or otherwise protected against accidental contact with persons.

(b) Steam hose connections shall be securely made and maintained in safe working condition. Effective means shall be used to prevent hose from whipping.

Stat. Auth.: OAR 654.025(2) and ORS 656.726(3).

Hist.: WCB Admin. Order, Safety 8-1976, f. 4/20/76, ef. 7/1/76.
OR-OSHA Admin. Order 10-1993, f. 7/29/93, ef. 9/15/93.