

11-30

Secretary of State
Certificate and Order for Filing
PERMANENT ADMINISTRATIVE RULES

I certify that the attached copies* are true, full and correct copies of the PERMANENT Rule(s) adopted on November 30, 2006 by the
Date prior to or same as filing date

Department of Consumer & Business Services/Oregon Occupational Safety & Health Division 437
Agency and Division Administrative Rules Chapter Number

Sue Joye 350 Winter Street NE, Salem OR 97301-3882 503-947-7449
Rules Coordinator Address Telephone

to become effective November 30, 2006 as OR-OSHA Administrative Order 10-2006.
Date upon filing or later

Rulemaking Notice was published in the November 2006 Oregon Bulletin.**
Month and Year

RULE CAPTION

Adoption of Federal OSHA's changes to Respiratory Protection in General Industry, Construction, Agriculture, and Maritime.

Not more than 15 words that reasonably identifies the subject matter of the agency's intended action.

RULEMAKING ACTION

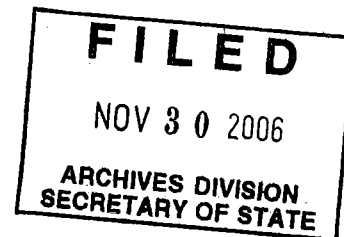
AMEND: OAR 437-002-0120, 437-002-0360, 437-003-0001, 437-004-1041, ~~437-004-9000~~, and 437-005-0001

ORS 654.025(2), 656.726(4)

Stat. Auth.

ORS 654.001 through 654.295

Stats. Implemented



RULE SUMMARY

Oregon OSHA adopts the Federal OSHA changes as they appear in the August 24, 2006 Federal Register. These changes revise the existing rules on respiratory protection, adding definitions and new language that establishes Assigned Protection Factors (APFs) and Maximum Use Concentrations (MUCs) for respirator use. The revisions also supersede the respirator selection provisions of existing substance-specific standards with these new APFs (except for the respirator selection provisions of the 1,3-Butadiene Standard).

Federal OSHA developed the final APFs after thoroughly reviewing the available literature, including chamber-simulation studies and workplace protection factor studies, comments submitted to the record, and hearing testimony. The final APFs provide employers with critical information to use when selecting respirators for employees exposed to atmospheric contaminants found in general industry, construction, shipyards, longshoring, and marine terminal workplaces. Oregon OSHA also adopts these changes into Division 4, Agriculture. Proper respirator selection using APFs is an important component of an effective respiratory protection program. Accordingly, Federal OSHA concludes that the final APFs are necessary to protect employees who must use respirators to protect them from airborne contaminants.

Please visit our web site www.orosha.org Click 'Rules & Laws' in the left vertical column and view our proposed, adopted, and final rules.

Authorized Signer

Michael D. Wood
Printed name

11/27/06
Date

*With this original, file one photocopy of certificate, one paper copy of rules listed in Rulemaking Actions, and electronic copy of rules.

**The *Oregon Bulletin* is published on the 1st of each month and updates the rule text found in the Oregon Administrative Rules Compilation. Notice forms must be submitted to the Administrative Rules Unit, Oregon State Archives, 800 Summer Street NE, Salem, Oregon 97310 by 5:00 pm on the 15th day of the preceding month unless this deadline falls on a Saturday, Sunday or legal holiday when Notice forms are accepted until 5:00 pm on the preceding workday.

ARC 930-2005

OAR 437, Oregon Occupational Safety and Health Division
OR-OSHA Admin. Order 10-2006
Filed and effective November 30, 2006

DIVISION 2, GENERAL OCCUPATIONAL SAFETY AND HEALTH RULES
SUBDIVISION I – PERSONAL PROTECTIVE EQUIPMENT

437-002-0120

Adoption by Reference.

In addition to and not in lieu of any other health and safety 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 7/1/03, and any subsequent amendments published in the Federal Register and listed below:

- (1) 29 CFR 1910.132 General requirements, published 6/27/74, Federal Register, vol. 39, p. 23502; amended 6/30/93, FR vol. 58, no. 124, p. 35306; 4/6/94, FR vol. 59, no. 66, p. 16360; amended with AO 12-2001, Oregon note added, f. and ef. 10/26/01.
- (2) 29 CFR 1910.133 Eye and face protection, published 6/27/74, Federal Register, vol. 39, p. 23502; 4/6/94, FR vol. 59, no. 66, p. 16360; 3/7/96, FR vol. 61, no. 46, p. 9236; 5/2/96, FR vol. 61, p. 19547.
- (3) 29 CFR 1910.134 Respiratory protection, published 1/8/98, Federal Register, vol. 63, no. 5, p. 1270; 4/23/98, FR vol. 63, no. 78, p. 20098; 8/4/04, FR vol. 69, p. 46986; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.
- (4) 29 CFR 1910.135 Occupational head protection, published 4/6/94, Federal Register, vol. 59, no. 66, p. 16362; 3/7/96, FR vol. 61, no. 46, p. 9238; 5/2/96, FR vol. 61, p. 19547.
- (5) 29 CFR 1910.136 Occupational foot protection, published 4/6/94, Federal Register, vol. 59, no. 66, p. 16362; 3/7/96, FR vol. 61, no. 46, p. 9238; 5/2/96, FR vol. 61, p. 19547; 5/9/96; FR vol. 61, p. 21228.
- (6) 29 CFR 1910.137 Electrical protective equipment, published 6/27/74, Federal Register, vol. 39, p. 23502; amended 1/31/94, FR vol. 59, no. 20, pp. 4435-7.
- (7) 29 CFR 1910.138 Hand Protection, published 4/6/94, Federal Register, vol. 59, no. 66, p. 16362.
- (8) 29 CFR 1910.139 Respiratory protection for M. tuberculosis, published 6/27/74, Federal Register, vol. 39, p. 23502; amended 10/24/78, FR vol. 43, p. 49748; 2/10/84, FR vol. 49, p. 5322; 4/30/84, FR vol. 49, p. 18295; 6/30/93, FR vol. 58, no. 124, p. 35309; 1/8/98, FR vol. 63, no. 5, p. 1270. Removed, 12/3/03, FR vol. 68, p. 75776-75780 (OR-OSHA Admin. Order 1-2004, f. 3/26/04, ef. 7/1/04).
- (9) Appendices.
Appendix A – References for further information (nonmandatory).
Appendix B – Nonmandatory compliance guidelines for hazard assessment and personal protective equipment selection.

These standards are available from the Oregon Occupational Safety and Health Division (OR-OSHA), Department of Consumer and Business Services; and the United States Government Printing Office.

Stat. Auth.: ORS 654.025(2) and 656.726(4).

Stats. Implemented: ORS 654.001 through 654.295

SUBDIVISION Z – TOXIC AND HAZARDOUS SUBSTANCES

437-002-0360

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 7/1/99, and any subsequent amendments published in the Federal Register as listed below:

(1) (Reserved) 29 CFR 1910.1000 Air contaminants, published 6/27/74, Federal Register, vol. 39, pp. 23540-23543; amended in the following FR publications: 5/28/75, vol. 40, pp. 23072-23073; 5/3/77, vol. 42, p. 22525; 1/17/78, vol. 43, p. 2600; 2/10/78, vol. 43, p. 5963; 3/29/78, vol. 43, p. 13563; 5/4/78, vol. 43, p. 19624; 6/23/78, vol. 43, p. 27394; 6/30/78, vol. 43, p. 28473; 10/3/78, vol. 43, p. 45809; 11/14/78, vol. 43, p. 53007; 12/8/78, vol. 43, pp. 57602-57603; 2/5/79, vol. 44, p. 7141; 6/18/80, vol. 45, pp. 12416-12417; 7/28/80, vol. 45, pp. 50328-50329; 6/19/81, vol. 46, p. 32022; 6/22/84, vol. 49, p. 25796; 1/02/85, vol. 50, p. 64; 12/13/85, vol. 50, p. 51173; 11/17/86, vol. 51, p. 41477; 9/11/87, vol. 52, p. 34562; 12/4/87, vol. 52, p. 46291; 1/19/89, vol. 54, pp. 2920-2983; 7/5/89, vol. 54, no. 127, pp. 28054-28061; 9/5/89, vol. 54, no. 170, pp. 36767-36768; 11/15/89, vol. 54, no. 219, p. 47513; 2/5/90, vol. 55, no. 24, pp. 3724; 5/9/90, vol. 55, no. 90, pp. 19258-19259; 11/8/90, vol. 55, no. 217, pp. 46948-46950; 7/1/92, vol. 57, no. 127, pp. 29204-29206. NOTE: 29 CFR 1910.1000 was repealed on 11/15/93 by OR-OSHA. In Oregon, OAR 437-002-0382 applies.

(2) 29 CFR 1910.1001 Asbestos, published 6/20/86, Federal Register, vol. 51, no. 119, pp. 22612-22790; amended 10/17/86, FR vol. 51, pp. 37002-37007; amended 5/12/87, FR vol. 52, pp. 17754-17755; amended 9/14/88, FR vol. 53, no. 178, pp. 35610-35627; amended 9/23/88, FR vol. 53, no. 185, p. 37080; amended 7/21/89, FR vol. 54, no. 139, p. 30704-30705; amended 12/20/89, FR vol. 54, no. 243, p. 52028; amended 2/5/90, FR vol. 55, no. 24, pp. 3731-3732; amended 12/10/90, FR vol. 55, no. 237, pp. 50685-50687; amended 9/4/91, FR vol. 56, no. 171, pp. 43699-43700; 3/5/92, FR vol. 57, no. 44, p. 7878; 6/8/92, FR vol. 57, no. 110, p. 24330; 8/10/94, FR vol. 59, no. 153, p. 41065; 6/29/95, FR vol. 60, no. 125, pp. 33983-34002; 8/23/96, FR vol. 61, no. 165, pp. 43434-43459; 1/8/98, FR vol. 63, no. 5, p. 1285; 4/23/98, FR vol. 63, no. 78, p. 20099; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(3) 29 CFR 1910.1002 Coal tar pitch volatiles, interpretation of term, published 1/21/83, Federal Register, vol. 43, p. 2768.

- (4) 29 CFR 1910.1003 13 Carcinogens, published 3/7/96, Federal Register, vol. 61, no. 46, p. 9242; 1/8/98, FR vol. 63, no. 5, p. 1286; 4/23/98, FR vol. 63, no. 78, p. 20099; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669.
- (5) 29 CFR 1910.1004 See §1910.1003, 13 Carcinogens.
- (6) Reserved for 29 CFR 1910.1005.
- (7) 29 CFR 1910.1006 See §1910.1003, 13 Carcinogens.
- (8) 29 CFR 1910.1007 See §1910.1003, 13 Carcinogens.
- (9) 29 CFR 1910.1008 See §1910.1003, 13 Carcinogens.
- (10) 29 CFR 1910.1009 See §1910.1003, 13 Carcinogens.
- (11) 29 CFR 1910.1010 See §1910.1003, 13 Carcinogens.
- (12) 29 CFR 1910.1011 See §1910.1003, 13 Carcinogens.
- (13) 29 CFR 1910.1012 See §1910.1003, 13 Carcinogens.
- (14) 29 CFR 1910.1013 See §1910.1003, 13 Carcinogens.
- (15) 29 CFR 1910.1014 See §1910.1003, 13 Carcinogens.
- (16) 29 CFR 1910.1015 See §1910.1003, 13 Carcinogens.
- (17) 29 CFR 1910.1016 See §1910.1003, 13 Carcinogens.
- (18) 29 CFR 1910.1017 Vinyl chloride, published 10/4/74, Federal Register, vol. 39, p. 35896; amended by the following FR publications: 12/3/74, FR vol. 39, p. 41848; 3/25/75, FR vol. 40, p. 13211; 5/28/75, FR vol. 40, p. 23072; 10/24/78, FR vol. 43, p. 49751; 5/23/80, FR vol. 45, p. 35282; 6/7/89, FR vol. 54, p. 24334; 6/30/93, FR vol. 58, no. 124, p. 35310; 1/8/98, FR vol. 63, no. 5, p. 1286; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.
- (19) 29 CFR 1910.1018 Inorganic arsenic, published 5/25/78, Federal Register, vol. 43, p. 19624; amended by the following FR publications: 6/30/78, FR vol. 43, p. 28472; 5/23/80, FR vol. 45, p. 35282; 6/7/89, FR vol. 54, p. 24334; 6/30/93, FR vol. 58, no. 124, p. 35310; 3/7/96, FR vol. 61, no. 46, p. 9245; 1/8/98, FR vol. 63, no. 5, p. 1286; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.
- (20) 29 CFR 1910.1020 Access to Employee Exposure and Medical Records, published May 23, 1980, Federal Register, vol. 45, no. 102, pp. 35277-35281; amended September 29, 1988, Federal Register, vol. 53, no. 189, pp. 38163-38168; 3/7/96, FR vol. 61, no. 46, p. 9235; 6/20/96, FR vol. 61, p. 31427; 4/3/06, FR vol. 71, no. 63, p. 16669.

Appendix A - Sample Authorization Letter.

Appendix B - Availability of NIOSH RTECS.

- (21) 29 CFR 1910.1025 Lead, published 11/14/78, Federal Register, vol. 44, p. 53007; amended by the following FR publications: 1/26/79, vol. 44, p. 5447; 3/13/79, vol. 44, p. 14554; 8/28/79, vol. 44 p. 50338; 10/23/79, vol. 44, p. 60981; 11/30/79, vol. 44, 68828; 5/23/80, vol. 45, p. 35283; 12/11/81, vol. 46, p. 60775; 11/12/82, vol. 47, p. 51117; 3/6/83, vol. 48, p. 9641; 4/30/84, vol. 49, p. 18295; 6/5/84, vol. 49, p. 23175; 6/5/84, vol. 49, p. 23175; and modified by OSHA Instruction CPL 2-2.47 published by the U. S. Department of Labor on 1/5/89. Amended 7/11/89, vol. 54, p. 29142; 1/30/90, vol. 55, no. 20, pp. 3166-3167; 2/13/90, vol. 55, no. 30, pp. 4998-4999; modification of OSHA Instruction CPL 2-2.47, published by Office of Health Compliance Assistance, OSHA, on 7/10/90. Amended 5/31/91, FR vol. 56, no. 105, p. 24686; amended 10/11/95, FR vol. 60, p. 52856; 1/8/98, FR vol. 63, no. 5, p. 1287; 4/23/98, FR vol. 63, no. 78, p.

20099; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(22) 29 CFR 1910.1026 Chromium (VI), published 2/28/06, Federal Register, vol. 71, no. 39, p. 10100; 6/23/06, FR vol. 71, no. 121, p. 36008.

(23) 29 CFR 1910.1027 Cadmium, published 9/14/92, Federal Register, vol. 57, no. 178, pp. 42388-42453; corrections published 4/23/93, FR vol. 58, no. 77, pp. 21778-21787; 1/8/98, FR vol. 63, no. 5, p. 1288; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(24) 29 CFR 1910.1028 Benzene, and Appendices A, B, C, D, and E, published 9/11/87, Federal Register, vol. 52, no. 176, pp. 34562-34578; 1/8/98, FR vol. 63, no. 5, p. 1289; 4/23/98, FR vol. 63, no. 78, p. 20099; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(25) 29 CFR 1910.1029 Coke oven emissions, published 10/22/76, Federal Register, vol. 41, p. 46784; amended by the following FR publications: 1/18/77, FR vol. 42, p. 3304; 5/23/80, FR vol. 45, p. 35283; 9/13/85, FR vol. 50, p. 37353; 6/7/89, FR vol. 54, p. 24334; 1/8/98, FR vol. 63, no. 5, p. 1290; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(26) 29 CFR 1910.1030 Bloodborne pathogens, published 12/6/91, Federal Register, vol. 56, no. 235, pp. 64175-64182; amended 7/1/92, vol. 57, no. 127, p. 29206; 1/18/01, FR vol. 66, no. 12, p. 5318; 4/3/06, FR vol. 71, no. 63, p. 16669.

(27) 29 CFR 1910.1043 Cotton dust, published 6/23/78, Federal Register, vol. 43, p. 27394; amended by the following FR publications: 8/8/78, FR vol. 43, p. 35035; 10/10/80, FR vol. 45, p. 67340; 12/13/85, FR vol. 50, p. 51173; 7/3/86, FR vol. 51, p. 24325; 6/7/89, FR vol. 54, p. 24334; 1/8/98, FR vol. 63, no. 5, p. 1290; 12/7/00, FR vol. 65, no. 236, p. 76563; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(28) 29 CFR 1910.1044 1,2-dibromo-3-chloropropane, published 3/17/78, Federal Register, vol. 43, p. 11527; amended by the following FR publications: 5/23/80, FR vol. 45, p. 35283; 4/30/84, FR vol. 49, p. 18295; 6/7/89, FR vol. 54, p. 24334; 6/30/93, FR vol. 58, no. 124, p. 35310; 1/8/98, FR vol. 63, no. 5, p. 1291; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(29) 29 CFR 1910.1045 Acrylonitrile, published 10/3/78, Federal Register, vol. 43, p. 45809; amended by the following FR publications: 5/23/80, FR vol. 45, p. 35283; 6/7/89, FR vol. 54, p. 24334; 6/30/93, FR vol. 58, no. 124, p. 35310; 1/8/98, FR vol. 63, no. 5, p. 1291; 4/23/98, FR vol. 63, no. 78, p. 20099; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(30) 29 CFR 1910.1047 Ethylene oxide, published 6/22/84, Federal Register, vol. 49, p. 25796; amended 3/12/85, FR vol. 50, p. 9801; amended 10/11/85, FR vol. 50, p. 41494; amended 7/10/86, FR vol. 51, p. 25053; amended 4/6/88, FR vol. 53, p. 11437; amended 7/26/88, FR vol. 53, p. 27960; 1/8/98, FR vol. 63, no. 5, p. 1292; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(31) 29 CFR 1910.1048 Formaldehyde, and Appendices A, B, C, D and E, published 12/4/87, Federal Register, vol. 52, no. 233, pp. 46291-46312; and amendments to 1910.1048 published 3/2/88, FR vol. 53, no. 41, pp. 6628-6629; 11/8/88, FR vol. 53, pp. 45080-45088; 11/22/88, FR vol. 53, p. 47188; 7/13/89, FR vol. 54, no. 133, pp.

29545-29546; 8/1/89, FR vol. 54, No. 146, p. 31765; 8/29/89, FR vol. 54, p. 35639; 9/11/89, FR vol. 54, p. 37531; 10/24/89, vol. 54, pp. 43344-43346; 6/13/90, FR vol. 55, no. 114, p. 24070; 8/10/90, FR vol. 55, no. 155, p. 32616; 12/17/90, FR vol. 55, no. 242, p. 51698; 3/12/91, FR vol. 56, no. 48, pp. 10377-8; 6/12/91, FR vol. 56, no. 113, p. 26909; 8/8/91, FR vol. 56, no. 153, p. 37650-1, 11/13/91, FR vol. 56, no. 219, p. 57593; 1/23/92, FR vol. 57, no. 15, p. 2681-2; 5/5/92, FR vol. 57, no. 87, p. 19262; 5/27/92, FR vol. 57, no. 102, pp. 22307-9; 6/10/92, FR vol. 57, no. 112, p. 24701; 6/18/92, FR vol. 57, no. 118, pp. 27160-1; 1/8/98, FR vol. 63, no. 5, p. 1293; 4/23/98, FR vol. 63, no. 78, p. 20099; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(32) 29 CFR 1910.1050 Methylenedianiline (MDA), published 8/10/92, Federal Register, vol. 57, no. 154, pp. 35666-35681; 1/8/98, FR vol. 63, no. 5, p. 1293; 4/23/98, FR vol. 63, no. 78, p. 20099; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(33) 29 CFR 1910.1051 1,3-Butadiene, published 11/4/96, Federal Register, vol. 61, no. 214, p. 56831; 1/8/98, FR vol. 63, no. 5, p. 1294; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669.

(34) 29 CFR 1910.1052 Methylene Chloride, published 1/10/97, Federal Register, vol. 62, no. 7, p. 1601; 10/20/97, FR vol. 62, p. 54382; 12/18/97, FR vol. 62, no. 243, p. 66275; 1/8/98, FR vol. 63, no. 5, p. 1295; 4/23/98, FR vol. 63, no. 78, p. 20099; 9/22/98, FR vol. 63, no. 183, p. 50729; amended by AO 12-2001, reference typo corrected, f. and ef. 10/26/01; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(NOTE: 29 CFR 1910.1101 Asbestos, was repealed by Federal Register, vol. 57, no. 110, issued 6/8/92, p. 24330.)

(35) 29 CFR 1910.1096 Ionizing radiation, published 6/27/74, Federal Register, vol. 39, p. 23502; amended 10/24/78, FR vol. 43, p. 49746; 11/7/78, FR vol. 43, p. 51759; 4/30/84, FR vol. 49, p. 18295; 6/30/93, FR vol. 58, no. 124, p. 35309; 6/20/96, FR vol. 61, no. 46, p. 31427.

(36) 29 CFR 1910.1200 Hazard communication, published 8/24/87, Federal Register, vol. 52, p. 31877; amended by the following FR publications: 12/4/87, FR vol. 52, p. 46080; 4/27/88, FR vol. 53, p. 15035; 2/15/89, FR vol. 54, p. 6888; 6/7/89, FR vol. 54, p. 24334; 2/9/94, FR vol. 59, no. 27, pp. 6126-6184; 4/13/94, FR vol. 59, no. 71, pp. 17478; 12/22/94, FR vol. 59, no. 245, p. 65947; 3/7/96, FR vol. 61, no. 46, p. 9245.

(37) 29 CFR 1910.1201 Retention of DOT Markings, Placards and Labels, published 7/19/94, Federal Register, vol. 59, p. 36700.

(38) 29 CFR 1910.1450 Occupational Exposure to Hazardous Chemicals in Laboratories, published 1/31/90, Federal Register, vol. 55 no. 21, pp. 3300-3335; corrected 3/6/90, FR vol. 55, no. 44, p. 7967; 7/1/92, vol. 57, no. 127, p. 29204; 4/3/06, FR vol. 71, no. 63, p. 16669.

(39) 29 CFR 1910.1499 Removed. Published 3/7/96, Federal Register, vol. 61, no. 46, p. 9245.

(40) 29 CFR 1910.1500 Removed. Published 3/7/96, Federal Register, vol. 61, no. 46, p. 9245.

These standards 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.: ORS 654.025(2) and 656.726(4).

Stats. Implemented: ORS 654.001 through 654.295.

OAR 437, DIVISION 3,
CONSTRUCTION

437-003-0001

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 1926, revised as of 7/1/99, and any subsequent amendments published in the Federal Register as listed below:

(1) Subdivision A – GENERAL

(a) 29 CFR 1926.1 Purpose and Scope, published 2/9/79, Federal Register (FR), vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(b) 29 CFR 1926.2 Variances from safety and health standards, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(c) 29 CFR 1926.3 Inspections – right of entry, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(d) 29 CFR 1926.4 Rules of practice for administrative adjudications for enforcement of safety and health standards, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(2) Subdivision B – GENERAL INTERPRETATIONS

(a) 29 CFR 1926.10 Scope of subpart, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(b) 29 CFR 1926.11 Coverage under section 103 of the act distinguished, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(c) 29 CFR 1926.12 Reorganization plan No. 14 of 1950, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(d) 29 CFR 1926.13 Interpretation of statutory terms, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(e) 29 CFR 1926.14 Federal contracts for 'mixed' types of performance, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(f) 29 CFR 1926.15 Relationship to the service contract act; Walsh-Healey Public Contracts Act, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(g) 29 CFR 1926.16 Rules of construction, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(3) Subdivision C – GENERAL SAFETY AND HEALTH PROVISIONS

- (a) 29 CFR 1926.20 General safety and health provisions, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (b) 29 CFR 1926.21 Safety training and education, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (c) 29 CFR 1926.22 Recording and reporting of injuries (Reserved)
- (d) 29 CFR 1926.23 First aid and medical attention, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (e) 29 CFR 1926.24 Fire protection and prevention, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (f) 29 CFR 1926.25 Housekeeping, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (g) 29 CFR 1926.26 Illumination, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (h) 29 CFR 1926.27 Sanitation, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (i) 29 CFR 1926.28 Personal protective equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (j) 29 CFR 1926.29 Acceptable certifications, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (k) 29 CFR 1926.30 Shipbuilding and ship repairing, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 3/7/96, FR vol. 61, no. 46, p. 9249.
- (l) 29 CFR 1926.31 Incorporation by reference, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 3/7/96, FR vol. 61, no. 46, p. 9249; 6/18/98, FR vol. 63, no. 117, p. 33468.
- (m) 29 CFR 1926.32 Definitions, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35078.
- (n) 29 CFR 1926.33 Access to employee exposure and medical records, published 6/20/96, FR vol. 61, no. 46, p. 31427.
- (o) 29 CFR 1926.34 Means of egress, published 6/30/93, Federal Register, vol. 58, no. 124, p. 35083.
- (4) Subdivision D – OCCUPATIONAL HEALTH AND ENVIRONMENTAL ONTROLS
 - (a) 29 CFR 1926.50 Medical services and first aid, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/18/98, FR vol. 63, no. 117, p. 33469.
 - (b) 29 CFR 1926.51 Sanitation, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35084.
 - (c) 29 CFR 1926.52 Occupational noise exposure, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (d) 29 CFR 1926.53 Ionizing radiation, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (e) 29 CFR 1926.54 Nonionizing radiation, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (f) 29 CFR 1926.55 Gases, vapors, fumes, dusts, and mists, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 10/17/86, FR vol. 51, p. 37007; 12/4/87, FR vol. 52, p. 46312; 11/4/96, FR vol. 61, no. 214, p. 56856; 1/10/97, FR vol. 62, no. 7, p. 1619.

- (g) 29 CFR 1926.56 Illumination, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (h) 29 CFR 1926.57 Ventilation, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35099; 3/7/96, FR vol. 61, no. 46, p. 9250; 1/8/98, FR vol. 63, no. 5, p. 1295.
- (i) 29 CFR 1926.58 Reserved, §1926.58, Asbestos, tremolite, anthophyllite and actinolite is redesignated as §1926.1101, Asbestos, and §1926.58 is reserved (8/10/94, FR vol. 59, no. 153, pp. 41131-62).
- (j) 29 CFR 1926.59 Hazard Communication, published 8/24/87, FR vol. 52, p. 31852; amended 12/4/87, FR vol. 52, 46075; 4/27/88, FR vol. 53, no. 81, pp. 15033-15035; stay lifted on 2/17/89, FR vol. 54, p. 6886; 2/9/94, FR vol. 59, no. 27, pp. 6126-6184; 4/13/94, FR vol. 59, no. 71, pp. 17478-17479; 12/22/94, FR vol. 59, no. 245, p. 65947; 6/20/96, FR vol. 61, p. 31427.
- (k) 29 CFR 1926.60 Methylenedianiline (MDA), published 8/10/92, FR vol. 57, no. 154, pp. 35681-35695; 6/20/96, FR vol. 61, p. 31427; 1/8/98, FR vol. 63, no. 5, p. 1296; 12/6/04, FR vol. 69, p. 70373; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.
- (l) 29 CFR 1926.61 Retention of DOT markings, placards and labels, published 7/19/94, FR vol. 59, no. 137, pp. 36700; 6/20/96, FR vol. 61, p. 31427.
- (m) 29 CFR 1926.62 Lead, published 5/4/93, FR vol. 58, no. 84, pp. 26626-26649; 1/8/98, FR vol. 63, no. 5, p. 1296; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669.

NOTE: Cadmium has been redesignated as §1926.1127.

- (n) 29 CFR 1926.65 Hazardous Waste Operations and Emergency Response
NOTE: Division 2/H, 1910.120, Hazardous Waste Operations and Emergency Response, applies to Construction.

(5) Subdivision E – PERSONAL PROTECTIVE AND LIFE SAVING EQUIPMENT

- (a) 29 CFR 1926.95 Criteria for personal protective equipment, published 6/30/93, Federal Register, vol. 58, p. 35152.
- (b) 29 CFR 1926.100 Head protection, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (c) 29 CFR 1926.101 Hearing protection, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (d) 29 CFR 1926.102 Eye and face protection, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35160.
- (e) 29 CFR 1926.103 Respiratory protection, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 1/8/98, FR vol. 63, no. 5, p. 1297.
- NOTE: 29 CFR 1926.104 Removed, 8/9/94, FR vol. 59, no. 152, p. 40729.
- (f) 29 CFR 1926.105 Reserved, 8/9/94, FR vol. 59, no. 152, p. 40729.
- (g) 29 CFR 1926.106 Working over or near water, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (h) 29 CFR 1926.107 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 8/9/94, FR vol. 59, no. 152, p. 40729.

(6) Subdivision F – FIRE PROTECTION AND PREVENTION

- (a) 29 CFR 1926.150 Fire protection, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

- (b) 29 CFR 1926.151 Fire prevention, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, p. 25318.
- (c) 29 CFR 1926.152 Flammable and combustible liquids, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/18/98, FR vol. 63, no. 117, p. 33469; 6/30/93, FR vol. 58, no. 124, p. 35162.
- (d) 29 CFR 1926.153 Liquefied petroleum gas (LP-Gas), published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35170.
- (e) 29 CFR 1926.154 Temporary heating devices, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (f) 29 CFR 1926.155 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (7) Subdivision G – SIGNS, SIGNALS, AND BARRICADES
- (a) 29 CFR 1926.200 Accident prevention signs and tags, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35173; amended with OR-OSHA Admin. Order 2-2003, f. 1/30/03, ef. 1/30/03.
- (b) 29 CFR 1926.201 Signaling, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; REPEALED with OR-OSHA Admin. Order 2-2003, f. 1/30/03, ef. 1/30/03.
- (c) 29 CFR 1926.202 Barricades, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; REPEALED with OR-OSHA Admin. Order 2-2003, f. 1/30/03, ef. 1/30/03.
- (d) 29 CFR 1926.203 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; amended with OR-OSHA Admin. Order 2-2003, f. 1/30/03, ef. 1/30/03.
- (8) Subdivision H – MATERIALS HANDLING, STORAGE, USE AND DISPOSAL
- (a) 29 CFR 1926.250 General requirements for storage, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 8/9/94, FR vol. 59, no. 152, p. 40729; 6/30/93, FR vol. 58, no. 124, p. 35173.
- (b) 29 CFR 1926.251 Rigging equipment for material handling, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35173.
- (c) 29 CFR 1926.252 Disposal of waste materials, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (9) Subdivision I – TOOLS – HAND AND POWER
- (a) 29 CFR 1926.300 General requirements, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35076; 3/7/96, FR vol. 61, no. 46, p. 9250.
- (b) 29 CFR 1926.301 Hand tools, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (c) 29 CFR 1926.302 Power operated hand tools, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35175.
- (d) 29 CFR 1926.303 Abrasive wheels and tools, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35175.
- (e) 29 CFR 1926.304 Woodworking tools, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 3/7/96, FR vol. 61, no. 46, p. 9251.

(f) 29 CFR 1926.305 Jacks - lever and ratchet, screw, and hydraulic, published Federal Register vol. 58, no. 124, p. 35176.

(10) Subdivision J – WELDING AND CUTTING

(a) 29 CFR 1926.350 Gas welding and cutting, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35179.

(b) 29 CFR 1926.351 Arc welding and cutting, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, p. 25318.

(c) 29 CFR 1926.352 Fire prevention, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(d) 29 CFR 1926.353 Ventilation and protection in welding, cutting, and heating, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35179.

(e) 29 CFR 1926.354 Welding, cutting, and heating in way of preservative coatings, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(11) Subdivision K – ELECTRICAL

(a) 29 CFR 1926.400 Introduction, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(b) 29 CFR 1926.401 (Reserved)

(c) 29 CFR 1926.402 Applicability, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(d) 29 CFR 1926.403 General requirements, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(e) 29 CFR 1926.404 Wiring design and protection, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335; amended with AO 5-2002, repeal (b)(1), f. 6/28/02, ef. 10/1/03.

(f) 29 CFR 1926.405 Wiring methods, components, and equipment for general use, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(g) 29 CFR 1926.406 Specific purpose equipment and installations, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(h) 29 CFR 1926.407 Hazardous (classified) locations, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(i) 29 CFR 1926.408 Special systems, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(j) 29 CFR 1926.409 (Reserved)

(k) 29 CFR 1926.415 (Reserved)

(l) 29 CFR 1926.416 General requirements, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335; 6/30/93, FR vol. 58, no. 124, p. 35179; 3/7/96, FR vol. 61, no. 46, p. 9251; 8/12/96, FR vol. 61, no. 156, p. 41738.

(m) 29 CFR 1926.417 Lockout and tagging of circuits, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-

25335; 6/30/93, FR vol. 58, no. 124, p. 35181; 3/7/96, FR vol. 61, no. 46, p. 9251; 8/12/96, FR vol. 61, no. 156, p. 41739.

(n) 29 CFR 1926.418 (Reserved)

(o) 29 CFR 1926.430 (Reserved)

(p) 29 CFR 1926.431 Maintenance of equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(q) 29 CFR 1926.432 Environmental deterioration of equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(r) 29 CFR 1926.433 - 29 CFR 1926.440 (Reserved)

(s) 29 CFR 1926.441 Battery locations and battery charging, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(t) 29 CFR 1926.442 - 29 CFR 1926.448 (Reserved)

(u) 29 CFR 1926.449 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, no. 133, pp. 25294-25335.

(12) Subdivision L – SCAFFOLDING

(a) 29 CFR 1926.450 Scope, application and definitions applicable to this subpart, published 8/30/96, FR vol. 61, no. 170, p. 46104.

(b) 29 CFR 1926.451 General requirements, published 8/30/96, FR vol. 61, no. 170, p. 46107; 11/25/96, FR vol. 61, no. 228, p. 59831.

(c) 29 CFR 1926.452 Additional requirements applicable to specific types of scaffolds, published 8/30/96, FR vol. 61, no. 170, p. 46113.

(d) 29 CFR 1926.453 Aerial lifts, published 8/30/96, FR vol. 61, no. 170, p. 46116; 11/25/96, FR vol. 61, no. 228, p. 59832.

(e) 29 CFR 1926.454 Training, published 8/30/96, FR vol. 61, no. 170, p. 46117.

(f) Appendix A to Subpart L Scaffold Specifications, published 8/30/96, FR vol. 61, no. 170, p. 46117.

(g) Appendix B to Subpart L Criteria for determining the feasibility of providing safe access and fall protection for scaffold erectors and dismantlers (Reserved), published 8/30/96, FR vol. 61, no. 170, p. 46122.

(h) Appendix C to Subpart L List of National Consensus Standards, published 8/30/96, FR vol. 61, no. 170, p. 46122.

(i) Appendix D to Subpart L List of training topics for scaffold erectors and dismantlers, published 8/30/96, FR vol. 61, no. 170, p. 46122.

(j) Appendix E to Subpart L Drawing and illustrations, published 8/30/96, FR vol. 61, no. 170, p. 46122; 11/25/96, FR vol. 61, no. 228, p. 59832.

(13) Subdivision M – FALL PROTECTION

(a) 29 CFR 1926.500 Scope, application, and definitions applicable to this subpart. Amended 8/9/94, FR vol. 59, no. 152, p. 40730-40731; 1/18/01, FR vol. 66, no. 12, p. 5265; 7/17/01, FR vol. 66, no. 137, p. 37137; amended with AO 6-2002, f. and ef. 7/19/02.

(b) 29 CFR 1926.501 Duty to have fall protection. Amended 8/9/94, FR vol. 59, no. 152, p. 40732-40733; amended 2/5/01 (Oregon Exceptions); amended with AO 6-2002, f. and ef. 7/19/02.

- (c) 29 CFR 1926.502 Fall protection systems criteria and practices. Amended 8/9/94, FR vol. 59, no. 152, p. 40733-40738; amended with AO 6-2002, f. and ef. 7/19/02.
- (d) 29 CFR 1926.503 Training requirements. Amended 8/9/94, FR vol. 59, no. 152, p. 40738; REPEALED with AO 6-2002, f. and ef. 7/19/02, replaced with OI.
- (e) Appendix A to Subpart M Determining Roof Widths, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; amended 8/9/94, FR vol. 59, no. 152, p. 40738-40742.
- (f) Appendix B to Subpart M Guardrail Systems, published 8/9/94, FR vol. 59, no. 152, p. 40743.
- (g) Appendix C to Subpart M Personal Fall Arrest Systems, published 8/9/94, FR vol. 59, no. 152, p. 40743-40746.
- (h) Appendix D to Subpart M Positioning Device Systems, published 8/9/94, FR vol. 59, no. 152, p. 40746.
- (14) Subdivision N – CRANES, DERRICKS, HOISTS, ELEVATORS, AND CONVEYORS
 - (a) 29 CFR 1926.550 Cranes and derricks, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 4/6/82, FR vol. 47, p. 14706; 8/2/88, FR vol. 53, p. 29139; 4/18/89, FR vol. 54, no. 73, p. 15405; 8/9/94, FR vol. 59, no. 152, p. 40730; 6/30/93, FR vol. 58, no. 124, p. 35183.
 - (b) 29 CFR 1926.551 Helicopters, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (c) 29 CFR 1926.552 Material hoists, personnel hoists, and elevators, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (d) 29 CFR 1926.553 Base-mounted drum hoist, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (e) 29 CFR 1926.554 Overhead hoists, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (f) 29 CFR 1926.555 Conveyors, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (15) Subdivision O – MOTOR VEHICLES, MECHANIZED EQUIPMENT, AND MARINE OPERATIONS
 - (a) 29 CFR 1926.600 Equipment, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35183.
 - (b) 29 CFR 1926.601 Motor vehicles, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (c) 29 CFR 1926.602 Material handling equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35183; 12/1/98, FR vol. 63, no. 230, p. 66274; amended by AO 7-2003, f. 12/5/03, ef. 12/5/03.
 - (d) 29 CFR 1926.603 Pile driving equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (e) 29 CFR 1926.604 Site clearing, published 6/24/74, FR vol. 39, p. 22801; amended 7/22/77, FR vol. 42, p. 37674.
 - (f) 29 CFR 1926.605 Marine operations and equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (g) 29 CFR 1926.606 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(16) Subdivision P – EXCAVATIONS

(a) 29 CFR 1926.650 Scope, application, and definitions applicable to this subdivision, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 10/31/89, FR vol. 54, no. 209, pp. 45959-45961.

(b) 29 CFR 1926.651 General requirements, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 10/31/89, FR vol. 54, no. 209, pp. 45960-45961; 8/9/94, FR vol. 59, no. 152, p. 40730.

(c) 29 CFR 1926.652 Requirements for protective systems, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 10/31/89, FR vol. 54, no. 209, pp. 45961-45962.

(d) Appendices A-F to Subdivision P, Excavations, published 10/31/89, FR vol. 54, no. 209, pp. 45962-45991.

(17) Subdivision Q – CONCRETE AND MASONRY CONSTRUCTION

(a) 29 CFR 1926.700 Scope, application and definitions applicable to this subpart, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/16/88, FR vol. 53, p. 22612; 10/18/90, FR vol. 55, no. 202, p. 42326.

(b) 29 CFR 1926.701 General requirements, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/16/88, FR vol. 53, p. 22612; 8/9/94, FR vol. 59, no. 152, p. 40730.

(c) 29 CFR 1926.702 Requirements for equipment and tools, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/16/88, FR vol. 53, p. 22612.

(d) 29 CFR 1926.703 Requirements for cast-in-place concrete, published 6/16/88, FR vol. 53, p. 22612.

(e) 29 CFR 1926.704 Requirements for precast concrete, published 6/16/88, FR vol. 53, p. 22612; amended 10/5/89, FR vol. 54, no. 192, p. 41088.

(f) 29 CFR 1926.705 Requirements for lift-slab construction operations, published 6/16/88, FR vol. 53, p. 22612; amended 10/18/90, FR vol. 55, no. 202, p. 42326.

(g) Appendix A to 1926.705 Lift-slab operations, published 10/18/90, FR vol. 55, no. 202, p. 42326.

(h) 29 CFR 1926.706 Requirements for masonry construction, published 6/16/88, FR vol. 53, p. 22612; amended with OR-OSHA Admin. Order 1-2003, f. 1/30/03, ef. 4/30/03.

(18) Subdivision R – STEEL ERECTION

(a) 29 CFR 1926.750 Scope, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(b) 29 CFR 1926.751 Definitions, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137; amended with AO 6-2002, f. and ef. 7/19/02; amended with AO 8-2003, f. 12/30/03, ef. 1/1/04.

(c) 29 CFR 1926.752 Site layout, site-specific erection plan and construction sequence, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(d) 29 CFR 1926.753 Hoisting and rigging, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(e) 29 CFR 1926.754 Structural steel assembly, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137; amended with

AO 6-2002, f. and ef. 7/19/02; amended with AO 8-2003, f. 12/30/03, ef. 1/1/04; amended 1/18/06, FR vol. 71, no. 11, p. 2879; 4/3/06, FR vol. 71, no. 63, p. 16669.

(f) 29 CFR 1926.755 Column anchorage, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(g) 29 CFR 1926.756 Beams and columns, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(h) 29 CFR 1926.757 Open web steel joists, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137; amended with AO 8-2003, f. 12/30/03, ef. 1/1/04.

(i) 29 CFR 1926.758 Systems-engineered metal buildings, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(j) 29 CFR 1926.759 Falling object protection, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(k) 29 CFR 1926.760 Fall protection, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137; amended with AO 6-2002, f. and ef. 7/19/02; amended with AO 8-2003, f. 12/30/03, ef. 1/1/04.

(l) 29 CFR 1926.761 Training, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137; amended with AO 6-2002, f. and ef. 7/19/02; amended with AO 8-2003, f. 12/30/03, ef. 1/1/04.

(m) Appendix A to Subpart R Guidelines for establishing the components of a site-specific erection plan: Nonmandatory Guidelines for Complying with §1926.752(e), published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(n) Appendix B to Subpart R Reserved.

(o) Appendix C to Subpart R Illustrations of bridging terminus points: Nonmandatory Guidelines for Complying with §1926.757(a)(10) and §1926.757(c)(5), published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(p) Appendix D to Subpart R Illustration of the use of control lines to demarcate controlled decking zones (CDZs): Nonmandatory Guidelines for Complying with §1926.760(c)(3), published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137; REPEALED with AO 6-2002, f. and ef. 7/19/02; amended with AO 8-2003, f. 12/30/03, ef. 1/1/04.

(q) Appendix E to Subpart R Training: Nonmandatory Guidelines for Complying with §1926.761, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(r) Appendix F to Subpart R Perimeter columns: Nonmandatory Guidelines for Complying with §1926.756(e) to Protect the Unprotected Side or Edge of a Walking/Working Surface, published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(s) Appendix G to Subpart R Fall protection systems criteria and practices from §1926.502: Nonmandatory Guidelines for Complying with Complying with §1926.760(d), published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137; REPEALED with AO 6-2002, f. and ef. 7/19/02; amended with AO 8-2003, f. 12/30/03, ef. 1/1/04.

(t) Appendix H to Subpart R Double connections: Illustration of a clipped end connection and a staggered connection: Non-Mandatory Guidelines for Complying with Complying with §1926.756(c)(1), published 1/18/01, Federal Register, vol. 66, no. 12, p. 5265; amended 7/17/01, FR vol. 66, no. 137, p. 37137.

(19) Subdivision S – UNDERGROUND CONSTRUCTION, CAISSONS, COFFERDAMS, AND COMPRESSED AIR

(a) 29 CFR 1926.800 Tunnels and shafts, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940. Underground Construction, published 6/2/89, FR vol. 54, no. 105, p. 23824; 1/8/98, FR vol. 63, no. 5, p. 1297; 4/3/06, FR vol. 71, no. 63, p. 16669.

(b) 29 CFR 1926.801 Caissons, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(c) 29 CFR 1926.802 Cofferdams, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(d) 29 CFR 1926.803 Compressed air, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 7/11/86, FR vol. 51, p. 25318.

(e) 29 CFR 1926.804 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(f) Appendix A to Subpart S Decompression Tables, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(20) Subdivision T – DEMOLITION

(a) 29 CFR 1926.850 Preparatory operations, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(b) 29 CFR 1926.851 Stairs, passageways, and ladders, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(c) 29 CFR 1926.852 Chutes, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(d) 29 CFR 1926.853 Removal of materials through floor openings, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(e) 29 CFR 1926.854 Removal of walls, masonry sections, and chimneys, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(f) 29 CFR 1926.855 Manual removal of floors, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(g) 29 CFR 1926.856 Removal of walls, floors, and materials with equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(h) 29 CFR 1926.857 Storage, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(i) 29 CFR 1926.858 Removal of steel construction, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(j) 29 CFR 1926.859 Mechanical demolition, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(k) 29 CFR 1926.860 Selective demolition by explosives, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

(21) Subdivision U – BLASTING AND USE OF EXPLOSIVES

(a) 29 CFR 1926.900 General provisions, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

- (b) 29 CFR 1926.901 Blaster qualifications, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (c) 29 CFR 1926.902 Surface transportation of explosives, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35311.
- (d) 29 CFR 1926.903 Underground transportation of explosives, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (e) 29 CFR 1926.904 Storage of explosives and blasting agents, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35311.
- (f) 29 CFR 1926.905 Loading of explosives or blasting agents, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35184.
- (g) 29 CFR 1926.906 Initiation of explosive charges – electric blasting, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/18/98, FR vol. 63, no. 117, p. 33469.
- (h) 29 CFR 1926.907 Use of safety fuse, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (i) 29 CFR 1926.908 Use of detonating cord, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (j) 29 CFR 1926.909 Firing the blast, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (k) 29 CFR 1926.910 Inspection after blasting, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (l) 29 CFR 1926.911 Misfires, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (m) 29 CFR 1926.912 Underwater blasting, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (n) 29 CFR 1926.913 Blasting in excavation work under compressed air, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (o) 29 CFR 1926.914 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/30/93, FR vol. 58, no. 124, p. 35184, 35311.
- (22) Subdivision V – POWER TRANSMISSION AND DISTRIBUTION
 - (a) 29 CFR 1926.950 General requirements, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (b) 29 CFR 1926.951 Tools and protective equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 8/9/94, FR vol. 59, no. 152, p. 40730.
 - (c) 29 CFR 1926.952 Mechanical equipment, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (d) 29 CFR 1926.953 Material handling, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (e) 29 CFR 1926.954 Grounding for protection of employees, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (f) 29 CFR 1926.955 Overhead lines, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.

- (g) 29 CFR 1926.956 Underground lines, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (h) 29 CFR 1926.957 Construction in energized substations, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (i) 29 CFR 1926.958 External load helicopters, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (j) 29 CFR 1926.959 Lineman's body belts, safety straps, and lanyards, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (k) 29 CFR 1926.960 Definitions applicable to this subpart, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
- (23) Subdivision W – ROLLOVER PROTECTIVE STRUCTURES: OVERHEAD PROTECTION
 - (a) 29 CFR 1926.1000 Rollover protective structures (ROPS) for material handling equipment, published 2/9/79, Federal Register, vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (b) 29 CFR 1926.1001 Minimum performance criteria for rollover protective structure for designated scrapers, loaders, dozers, graders, and crawler tractors, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940.
 - (c) 29 CFR 1926.1002 Protective frame (ROPS) test procedures and performance requirements for wheel-type agricultural and industrial tractors used in construction, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 3/7/96, FR vol. 61, no. 46, p. 9251; 12/29/05, FR vol. 70, no. 249, p. 76979; 2/28/06, FR vol. 71, no. 39, p. 9909; 7/20/06, FR vol. 71, no. 139, p. 41127..
 - (d) 29 CFR 1926.1003 Overhead protection for operators of agricultural and industrial tractors, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 3/7/96, FR vol. 61, no. 46, p. 9251; 12/29/05, FR vol. 70, no. 249, p. 76979; 2/28/06, FR vol. 71, no. 39, p. 9909.
- (24) Subdivision X – STAIRWAYS AND LADDERS
 - (a) 29 CFR 1926.1050 Scope, application and definitions applicable to this Subdivision, published 11/14/90, Federal Register, vol. 55, no. 220, p. 47687; amended 1/23/91, FR vol. 56, no. 15, p. 2585; 6/30/93, FR vol. 58, no. 124, p. 35184.
 - (b) 29 CFR 1926.1051 General requirements, published 11/14/90, FR vol. 55, no. 220, p. 47688.
 - (c) 29 CFR 1926.1052 Stairways, published 11/14/90, FR vol. 55, no. 220, p. 47688; amended 1/23/91, FR vol. 56, no. 15, p. 2585; 2/7/91, FR vol. 56, no. 26, p. 5061; 8/23/91, FR vol. 56, no. 164, pp. 41793-41794.
 - (d) 29 CFR 1926.1053 Ladders, published 11/14/90, FR vol. 55, no. 220, p. 47689; amended 1/23/91, FR vol. 56, no. 15, p. 2585; 8/23/91, FR vol. 56, no. 164, pp. 41793-41794.
 - (e) 29 CFR 1926.1054 (Reserved)
 - (f) 29 CFR 1926.1055 (Reserved)
 - (g) 29 CFR 1926.1056 (Reserved)
 - (h) 29 CFR 1926.1057 (Reserved)
 - (i) 29 CFR 1926.1058 (Reserved)
 - (j) 29 CFR 1926.1059 (Reserved)

(k) 29 CFR 1926.1060 Training requirements, published 11/14/90, FR vol. 55, no. 220, p. 47691.

(25) Subdivision Z – TOXIC AND HAZARDOUS SUBSTANCES

(a) 29 CFR 1926.1101 Asbestos, published 2/9/79, FR vol. 44, p. 8577; amended 4/6/79, FR vol. 44, p. 20940; 6/20/86, FR vol. 51, p. 22612; 10/17/86, FR vol. 52, p. 17756; 7/20/88, FR vol. 53, no. 138, p. 27346; 9/14/88, FR vol. 53, p. 35627; 9/23/88, FR vol. 53, no. 185, p. 37080; 7/21/89, FR vol. 54, no. 139, p. 30705, 12/20/89, FR vol. 54, no. 243, pp. 52027-52028; 2/5/90, FR vol. 55, no. 24, p. 3792; 12/10/90, FR vol. 55, no. 237, pp. 50685-50687; 9/4/91, FR vol. 56, no. 171, pp. 43699-43700; 3/5/92, FR vol. 57, no. 44, p. 7878; 6/8/92, FR vol. 57, no. 110, pp. 24330-1; 6/30/92, FR vol. 57, no. 126, p. 29119; 8/10/94, FR vol. 59, no. 153, pp. 41131-62; 6/29/95, FR vol. 60, no. 125, pp. 33983-34002; 7/13/95, FR vol. 60, p. 36043; 9/29/95, FR vol. 60, p. 50411; 8/23/96, FR vol. 61, no. 165, p. 43454; 1/8/98, FR vol. 63, no. 5, p. 1298; 4/23/98, FR vol. 63, no. 78, p. 20099; 6/29/98, FR vol. 63, no. 124, p. 35137; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(b) 29 CFR 1926.1126 Chromium (VI), published 2/28/06, Federal Register, vol. 71, no. 39, p. 10100; 6/23/06, FR vol. 71, no. 121, p. 36008.

(c) 29 CFR 1926.1127 Cadmium, published 9/14/92, FR vol. 57, no. 178, pp. 42453-42463; amended 4/23/93, FR vol. 58, no. 77, p. 21778; 1/3/94, FR vol. 59, no. 1, p. 215; 6/20/96, FR vol. 61, p. 31427; 1/8/98, FR vol. 63, no. 5, p. 1298; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

(d) 29 CFR 1926.1152 Methylene Chloride, published 1/10/97, Federal Register, vol. 62, no. 7, p. 1619; 10/20/97, FR vol. 62, p. 54382; 12/18/97, FR vol. 62, no. 243, p. 66275.

These standards 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.: ORS 654.025(2) and 656.726(4).

Stats. Implemented: ORS 654.001 through 654.295.

DIVISION 4, AGRICULTURE

437-004-1041

Respiratory Protection.

(1) Permissible practice.

(a) To control occupational diseases caused by contaminated air, the best method is to prevent contamination with engineering controls. When this approach is not feasible, employers must comply with this standard.

(b) You must provide respirators to all employees when it is necessary to protect their health. Respirators must be appropriate for the hazard. You must also have an effective respirator program that includes at least the requirements of this standard. (See paragraph (3)).

(2) Definitions. The following definitions apply to this standard.

- (a) Air-purifying respirator is a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
- (b) Assigned protection factor (APF) means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by this section.
- (c) Atmosphere-supplying respirator is a respirator that supplies the user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.
- (d) Canister or cartridge is a container with a filter, sorbent, or catalyst, or combination of these items, that removes specific contaminants from the air passed through the container.
- (e) Demand respirator is an atmosphere-supplying respirator that admits breathing air to the face piece only when inhalation creates a negative pressure inside the face piece.
- (f) Elastomer (elastomeric) is an elastic substance like rubber or neoprene.
- (g) Emergency situation is any event such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.
- (h) Employee exposure is exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.
- (i) End-of-service-life indicator (ESLI) is a device, on the cartridge, that warns respirator users when their respirator is near the end of its ability to protect them. For example, an indicator on the cartridge will change to warn the user that the cartridge sorbent material is nearing saturation and is no longer effective.
- (j) Engineering control measures are methods to eliminate or control employee exposure to the hazard; e.g., substitution of a less toxic material, general or local ventilation and enclosing the operation.
- (k) Escape-only respirator is a respirator only for use during emergency exit.
- (l) Filter or air purifying element is a respirator component (e.g., canister or cartridge) that removes solid or liquid aerosols from the inspired air.
- (m) Filtering face piece (dust mask) is a tight fitting negative pressure particulate respirator with a filter as an integral part of the face piece or with the entire face piece made of the filtering medium.
- (n) Fit factor is a quantitative estimate of the fit of a particular respirator to a specific person, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn. Instrumentation is used with ambient air as the "test agent" to quantify the respirator fit. See appendix A.
- (o) Fit test is the use of procedures in Appendix A to qualitatively or quantitatively evaluate the fit of a respirator on a person. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)
- (p) Helmet is a rigid respirator covering that also provides head protection against impact and penetration.
- (q) High efficiency particulate air (HEPA) filter is a filter that is at least 99.97 percent efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

- (r) Hood is a respirator covering that completely covers the head and neck and may also cover portions of the shoulders and torso.
- (s) Immediately dangerous to life or health (IDLH) is an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
- (t) Interior structural firefighting is the physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage.
- (u) Loose-fitting face piece is a respiratory covering that forms a partial seal with the face, e.g., hood.
- (v) Maximum use concentration (MUC) means the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator, and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance. The MUC can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the required OSHA permissible exposure limit, short-term exposure limit, or ceiling limit. When no OSHA exposure limit is available for a hazardous substance, an employer must determine an MUC on the basis of relevant available information and informed professional judgment.
- (w) Negative pressure respirator (tight fitting) is a respirator in which the air pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.
- (x) Oxygen deficient atmosphere is an atmosphere with an oxygen content less than 19.5 percent by volume.
- (y) Physician or other licensed health care professional (PLHCP) is a person whose legally permitted scope of practice (i.e., license, registration, or certification) allows them to independently provide, or be delegated to provide, some or all of the health care services required by this standard.
- (z) Positive pressure respirator is a respirator in which the pressure inside the respiratory covering is higher than the air pressure outside the respirator.
- (aa) Powered air-purifying respirator (PAPR) is an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.
- (bb) Pressure demand respirator is a positive pressure atmosphere-supplying respirator that admits breathing air to the face piece when inhalation reduces the positive pressure inside the face piece.
- (cc) Qualitative fit test (QLFT) is a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent. See Appendix A.
- (dd) Quantitative fit test (QNFT) is an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator. See Appendix A.
- (ee) Respirator covering is that part of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a face piece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.
- (ff) Self-contained breathing apparatus (SCBA) is an atmosphere-supplying respirator for which user carries the breathing air source.

- (gg) Service life is the period of time that a respirator, filter or sorbent, or other respiratory equipment adequately protects the wearer.
- (hh) Supplied-air respirator (SAR) or airline respirator is an atmosphere-supplying respirator for which the source of breathing air is not carried by the user.
- (ii) Tight-fitting face piece is a respirator covering that forms a complete seal with the face, e.g., half mask or full-face piece.
- (jj) User seal check is an action by the respirator user to determine if the respirator is properly seated to the face. See appendix B-1.
- (3) Respiratory protection program.
- (a) When respirators are necessary to protect the health of workers or when you require workers to wear them, you must have an effective, written respiratory protection program, managed by a knowledgeable person, with procedures specific to your work site. Keep the program updated to reflect changes in conditions that require the use of respirators. You must include at least these points:
- (A) Procedures for selecting respirators for use in the workplace;
 - (B) Medical evaluations of employees require to use respirators;
 - (C) Fit testing procedures for tight-fitting respirators;
 - (D) Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
 - (E) Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
 - (F) Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
 - (G) Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
 - (H) Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance; and
 - (I) Procedures for regularly evaluating the effectiveness of the program.
- (b) The employer must provide respirators, training, and medical evaluations at no cost to the employee.
- (c) Where respirator use is voluntary:
- (A) You may provide respirators to employees who request them or they may use their own respirators. If you allow this voluntary use, you must determine that it will not create a hazard to the user. You must provide the voluntary user with the information in Appendix D, and;
 - (B) You must have a limited written respiratory program for voluntary users. It must include those parts of the standard necessary to ensure that:
 - (i) The user is medically able to use it without creating a hazard to themselves. Use of respirators other than dust masks require medical evaluations.
 - (ii) The program includes proper cleaning, storing and maintenance.
- EXCEPTION: No program is necessary for voluntary users who only use dust masks (filtering face pieces).
- (4) Selection of respirators. Identify and evaluate the respiratory hazard(s) including a reasonable estimate of employee exposures and an identification of the contaminant's chemical state and physical form. You must treat atmospheres with the potential for IDLH conditions as an IDLH hazard and provide appropriate respiratory protection.

- (a) General requirements.
 - (A) You must evaluate respiratory hazards, conditions in the workplace and user factors, then select and provide the appropriate respirators.
 - (B) All respirators must have NIOSH certification and all use must conform to that certification.
 - (C) Respirators must correctly fit and be acceptable to the user.
- (b) Respirators for IDLH atmospheres.
 - (A) Provide the following respirators for employee use in IDLH atmospheres:
 - (i) A full face piece pressure demand SCBA certified by NIOSH for a minimum service life of 30 minutes, or
 - (ii) A combination full-face piece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
 - (B) Respirators only for escape from IDLH atmospheres must have NIOSH certification for escape from the atmosphere of use.
 - (C) Treat all oxygen-deficient atmospheres as IDLH. EXCEPTION: If you can demonstrate that, under all foreseeable conditions, the oxygen concentration will stay within the ranges in Table II (i.e., for the altitudes set out in the table), then use any atmosphere-supplying respirator.
- (c) Respirators for atmospheres that are not IDLH.
 - (A) Provide respirators adequate to protect the health of workers and ensure compliance with all other OR-OSHA requirements, under routine and reasonably foreseeable emergency situations.
 - (i) Assigned Protection Factors (APFs). Employers must use the assigned protection factors listed in Table I to select a respirator that meets or exceeds the required level of employee protection. When using a combination respirator (e.g., airline respirators with an air-purifying filter), employers must ensure that the assigned protection factor is appropriate to the mode of operation in which the respirator is being used.
 - (ii) Maximum Use Concentration (MUC).
 - (I) The employer must select a respirator for employee use that maintains the employee's exposure to the hazardous substance, when measured outside the respirator, at or below the MUC.
 - (II) Employers must not apply MUCs to conditions that are immediately dangerous to life or health (IDLH); instead, they must use respirators listed for IDLH conditions in paragraph (4)(b) of this standard.
 - (III) When the calculated MUC exceeds the IDLH level for a hazardous substance, or the performance limits of the cartridge or canister, then employers must set the maximum MUC at that lower limit.
 - (B) The respirator must be appropriate for the chemical state and physical form of the contaminant.
 - (C) For protection against gases and vapors, provide:
 - (i) An atmosphere-supplying respirator, or
 - (ii) An air-purifying respirator, if:
 - (I) It has an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or
 - (II) If there is no ESLI appropriate for your conditions, implement a change schedule for canisters and cartridges that is based on objective information or data that will ensure

that canisters and cartridges are changed before the end of their service life. Describe in the respirator program the information and data relied on and the basis for the canister and cartridge change schedule and the basis for reliance on the data.

(NOTE: The Worker Protection Standard contains criteria for specific change out schedules for respirator canisters and cartridges. See OAR 437-002-170.240.)

(D) For protection against particulates, provide:

(i) An atmosphere-supplying respirator; or

(ii) An air-purifying respirator with a filter certified by NIOSH under 30 CFR part 11 as a high efficiency particulate air (HEPA) filter, or an air-purifying respirator with a filter certified for particulates by NIOSH under 42 CFR part 84; or

(iii) For contaminants consisting primarily of particles with mass median aerodynamic diameters (MMAD) of at least 2 micrometers, an air-purifying respirator with any filter certified for particulates by NIOSH.

Table 1. -- Assigned Protection Factors⁵

Type of respirator ^{1, 2}	Quarter mask	Half mask	Full facepiece	Helmet/hood	Loose-fitting facepiece
1. Air-Purifying Respirator	5	³ 10	50	.....	.....
2. Powered Air-Purifying Respirator (PAPR)	.....	50	1,000	⁴ 25/1,000	25
3. Supplied-Air Respirator (SAR) or Airline Respirator					
• Demand mode	.....	10	50	.....	.....
• Continuous flow mode	.....	50	1,000	⁴ 25/1,000	25
• Pressure-demand or other positive-pressure mode	.....	50	1,000	.....	.....
4. Self-Contained Breathing Apparatus (SCBA)					
• Demand mode					
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	.....	10	50	50	.....
	.....	.....	10,000	10,000	.....

Notes:

¹Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.

²The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements.

³This APF category includes filtering facepieces, and half masks with elastomeric facepieces.

⁴The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated

by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25.

⁵These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance-specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

Table II	
Altitude (ft.)	Oxygen deficient Atmospheres (% O ₂) for which the employer may rely on atmosphere-supplying respirators
Less than 3,001	16.0-19.5
3,001-4,000	16.4-19.5
4,001-5,000	17.1-19.5
5,001-6,000	17.8-19.5
6,001-7,000	18.5-19.5
7,001-8,000 ¹	19.3-19.5

¹ Above 8,000 feet the exception does not apply. Oxygen-enriched breathing air must be supplied above 14,000 feet.

(5) Medical evaluation.

(a) General. You must provide medical evaluations to determine workers' ability to use a respirator safely. Do this before the worker's fit test and before any work requiring respirator use. The employer may discontinue an employee's medical evaluations when the employee no longer uses a respirator.

(b) Medical evaluation procedures.

(A) Use a physician or other licensed health care professional (PLHCP) to do the evaluations using either a medical questionnaire or an initial examination that produces the same information as in Appendix C.

(c) Follow-up medical examination.

(A) If the PLHCP reports that the employee needs a follow-up examination because of a positive response to any of questions 1 through 8 of the questionnaire in Appendix C or if their initial exam caused the need for a follow-up, you must ensure that they get the opportunity for the examination. NOTE: If the employee refuses the examination, they may not work in jobs that require a respirator.

(d) Administration of the medical questionnaire and examinations.

(A) You must allow the employee to complete the questionnaire in a way that protects the confidentiality of the information. Employers are not to see the answers or review the completed form. You must allow employees to complete the form during normal working hours or at a time and place convenient to them. If employees need help, allow

them to ask your PLHCP or anybody other than their employer or representatives of their employer.

(B) The employer must provide the employee with an opportunity to discuss the questionnaire and examination results with the PLHCP.

(e) Supplemental information for the PLHCP.

(A) You must give the PLHCP the following information before they make any recommendation about a worker's ability to use a respirator.

(i) The type and weight of the respirator the employee will use;

(ii) How long and how often the employee will use the respirator (including use for rescue and escape);

(iii) The expected physical work effort;

(iv) Additional protective clothing and equipment to be worn; and

(v) Temperature and humidity extremes that may exist during use.

(B) You need not provide information more than once if it is unchanged.

(C) You must provide a copy of your written respiratory program and this standard to the PLHCP.

Note to Paragraph (5)(e)(C): When the employer replaces a PLHCP, the employer must ensure that the new PLHCP has this information, either by providing the documents directly to the PLHCP or having the documents transferred from the former PLHCP to the new PLHCP. However, OR-OSHA does not expect employers to have employees medically reevaluated solely because there is a new PLHCP.

(f) Medical determination. In determining the employee's ability to use a respirator, the employer must:

(A) Obtain a written recommendation about the employee's ability to use the respirator from the PLHCP. The recommendation must provide only the following information:

(i) Any limitations on respirator use relating to the medical condition of the employee, or relating to the workplace conditions, including whether or not the employee is medically able to use the respirator;

(ii) The need, if any, for follow-up medical evaluations; and

(iii) A statement that the PLHCP gave a copy of the recommendation to the worker.

(B) If the respirator is a negative pressure respirator and the PLHCP finds that using it would increase the employee's health risk, the employer must provide a PAPR until a subsequent evaluation clears the employee for another type.

(g) Additional medical evaluations. At a minimum, the employer must provide additional medical evaluations that comply with this standard if:

(A) An employee reports medical signs or symptoms related to ability to use a respirator;

(B) A PLHCP, supervisor, or the knowledgeable person informs the employer that an employee needs a reevaluation; or

(C) Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or

(D) A change occurs in work conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden to the employee.

(6) Fit testing.

(a) You must be certain that employees using a tight-fitting face piece respirator pass a qualitative fit test (QLFT) or quantitative fit test (QNFT), using the same make, model, style and size respirator. The fit test must comply with this standard.

(b) Workers using a tight-fitting face piece respirator must renew their fit test annually, before initial use and when they change to another type, style, model or make.

(c) You must do a new fit test on any worker when they or a PLCHP report or you observe any change in the worker's physical condition that could affect the respirator fit.

(d) If after passing a QLFT or QNFT, the employee notifies the employer, supervisor, or PLHCP that the fit of the respirator is unacceptable, you must give them a reasonable opportunity to select a different respirator face piece and redo the fit test.

(e) All fit tests must comply with the Appendix A to this standard.

(f) Do not use qualitative fit tests (QLFT) for negative pressure air purifying respirators for use in atmospheres where the contaminant could be more than 10 times the permissible exposure limit (PEL).

(g) A QNFT fit factor of 100 or more for tight fitting half face piece or a fit factor of 500 for tight fitting full face piece respirators is necessary to pass a quantitative fit test.

(h) For both negative and positive pressure respirators that are tight-fitting, atmosphere-supplying types or powered air-purifying, use only negative pressure quantitative or qualitative fit tests, testing only in the negative pressure mode.

(A) Do qualitative fit testing of these respirators by temporarily converting the respirator user's actual face piece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure air-purifying respirator face piece with the same sealing surfaces as a surrogate for the atmosphere-supplying or powered air-purifying respirator face piece.

(B) Do quantitative fit testing of these respirators by modifying the face piece to allow sampling inside the face piece in the breathing zone of the user, midway between the nose and mouth. Do this by installing a permanent sampling probe onto a surrogate face piece, or by using a sampling adapter designed to temporarily provide a way to sample air from inside the face piece.

(C) Before returning a face piece to normal use, completely remove any modifications done for fit testing, and restore the face piece to NIOSH-approved.

(7) Use of respirators.

(a) Face piece seal protection.

(A) Workers who must wear tight-fitting face pieces may not have either of the following:

(i) Facial hair between the sealing surface and face or anything that interferes with the valve function; or

(ii) Any other condition that interferes with the face-to-face piece seal or valve function.

(B) If an employee wears glasses or goggles or other personal protective equipment, the employer must ensure that it does not interfere with the seal of the face piece to the face of the user.

(C) Employers must train workers who wear respirators on the need for and technique of doing a user seal check before every use. This training must include the procedures in Appendix B-1 or the recommendations of the respirator manufacturer.

(b) Continuing respirator effectiveness.

(A) You must evaluate the effectiveness of a respirator when there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness.

(B) You must ensure that employees leave the respirator use area:

(i) To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use; or

(ii) If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece; or

(iii) To replace the respirator or the filter, cartridge, or canister elements.

(C) If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, the employer must replace or repair the respirator before allowing the employee to return to the work area.

(c) Procedures for IDLH atmospheres. For all IDLH atmospheres, the employer must ensure that:

(A) One employee or, when needed, more than one employee is outside the IDLH atmosphere;

(B) Visual, voice, or line communication is continuous between the employee(s) in the IDLH atmosphere and the employee(s) outside the IDLH atmosphere;

(C) The employee(s) outside the IDLH atmosphere have the training and equipment to provide effective emergency rescue;

(D) The employer or designee is notified before the employee(s) outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue;

(E) The employer or designee authorized to do so by the employer, once notified, provides necessary assistance appropriate to the situation;

(F) Employee(s) outside the IDLH atmospheres have:

(i) Pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either

(ii) Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or

(iii) Equivalent means for rescue when there is no requirement for retrieval equipment under paragraph (g)(3)(vi)(B).

(d) Procedures for interior structural firefighting. If you require your workers to fight interior structural fires, paragraph (7)(c) applies. You must do the following:

(A) At least two employees enter the IDLH atmosphere and remain in visual or voice contact with one another at all times; and

(B) At least two employees are located outside the IDLH atmosphere; and

(C) All employees engaged in interior structural firefighting use SCBA's.

Note 1 to paragraph (7): One of the two individuals located outside the IDLH atmosphere may be assigned to an additional role, such as incident commander in charge of the emergency or safety officer, so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety of health of any firefighter working at the incident.

Note 2 to paragraph (7): Nothing in this section is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled.

(8) Maintenance and care of respirators.

(a) Cleaning and disinfecting. You must provide each respirator user with a respirator that is clean, sanitary, and in good working order. You also must ensure that respirators are clean and disinfected using the procedures in Appendix B-2, or procedures recommended by the respirator manufacturer, if they are of equivalent effectiveness.

Clean and disinfect the respirators at the following intervals:

(A) Clean and disinfect respirators for exclusive use of one worker as often as necessary to keep them sanitary;

(B) Clean and disinfect respirators for use by more than one worker after each use;

(C) Clean and disinfect emergency use respirators after each use; and

(D) Clean and disinfect fit test and training respirators after each use.

(b) Storage. Store all respirators as follows:

(A) Store all respirators to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, damaging chemicals, and to prevent deformation of the face piece and exhalation valve.

(B) In addition to the requirements of paragraph (h)(2)(i), keep emergency respirators:

(i) Accessible to the work area;

(ii) In compartments or in covers clearly marked as containing emergency respirators; and

(iii) In accordance with any applicable manufacturer instructions.

(c) Inspection.

(A) The employer must require respirator inspections as follows:

(i) Inspect all routine use respirators before each use and during cleaning;

(ii) Inspect emergency use respirators at least monthly and according to the manufacturer's recommendations. Check for proper function before and after each use; and

(iii) Inspect escape respirators before taking them into the area for possible use.

(B) The employer must ensure that respirator inspections include the following:

(i) A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the face piece, head straps, valves, connecting tube, and cartridges, canisters or filters; and

(ii) A check of elastomeric parts for pliability and signs of deterioration.

(C) In addition to the requirements of paragraphs (h)(3)(i) and (ii), inspect self-contained breathing apparatus monthly. Keep air and oxygen fully charged and recharge them when the pressure falls to 90 percent of the manufacturer's recommended pressure level. Be certain the regulator and warning devices work properly.

(D) For emergency use respirators, the employer must:

(i) Certify the respirator by documenting the date of inspection, the name (or signature) of the inspector, the findings, required remedial action, and a serial number or other means of identifying the respirator; and

(ii) Provide this information on a tag or label attached to the respirator storage compartment, or keep it with the respirator, or include it in paper or electronic inspection reports. Keep this information until the next report replaces it.

(d) Repairs. Do not use respirators that fail an inspection or are otherwise defective. Discard or repair them according to these procedures:

(A) Only people with appropriate training may repair or adjust respirators. They must use only the manufacturer's NIOSH-approved parts for the particular respirator;

- (B) Repairs must conform to the manufacturer's recommendations;
- (C) Only the manufacturer or a technician trained by the manufacturer may repair or adjust the reducing and admission valves, regulators and alarms.

(9) Breathing air quality and use.

(a) The employer must ensure or have their supplier certify that compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration meets the following specifications:

(A) Compressed and liquid oxygen must meet the United States Pharmacopoeia requirements for medical or breathing oxygen; and

(B) Compressed breathing air must meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:

- (i) Oxygen content (v/v) of 19.5 - 23.5 percent;
- (ii) Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
- (iii) Carbon monoxide (CO) content of 10 ppm or less;
- (iv) Carbon dioxide content of 1,000 ppm or less; and
- (v) Lack of noticeable odor.

NOTE: Do not fill your own air vessels unless they and the contents meet all the requirements of this standard

(b) Do not use compressed oxygen in respirators that previously held compressed air.

(c) The employer must ensure that the oxygen concentrations more than 23.5 percent are used only in equipment designed for oxygen service or distribution.

(d) The employer must ensure that cylinders to supply breathing air to respirators meet the following requirements:

(A) Cylinders must comply with the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 173 and part 178);

(B) Cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air; and

(C) The moisture content in the cylinder does not exceed a dew point of -50 degrees F. (-45.6 degrees C.) at 1 atmosphere pressure.

(e) The employer must ensure that compressors supplying breathing air to respirators:

(A) Prevent entry of contaminated air into the air-supply system;

(B) Minimize moisture content so that the dew point at 1 atmosphere pressure is 10 degrees F. (5.56 degrees C.) below the ambient temperature;

(C) Have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Maintain and replace sorbent beds and filters according to the manufacturer's instructions.

(D) Have a tag at the compressor showing the most recent change date and the signature of the authorized person who did the change.

(f) For compressors that are not oil-lubricated, ensure that carbon monoxide levels in the breathing air do not exceed 10 ppm.

(g) For oil-lubricated compressors, use only a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If you use only high-temperature alarms, monitor the air supply often enough to prevent carbon monoxide in the breathing air from exceeding 10 ppm.

(h) The employer must ensure that breathing air couplings are incompatible with outlets for nonrespirable worksite air or other gas systems. Do not allow any asphyxiating substance to get into breathing airlines.

(i) Use only breathing gas containers with marking that comply with the NIOSH respirator certification standard, 42 CFR part 84.

(10) Identification of filters, cartridges, and canisters. The employer must ensure that all filters, cartridges and canisters have labels and color codes that comply with the NIOSH standards and that the label remains in place and legible.

(11) Training and information.

(a) The employer must ensure that each employee can demonstrate knowledge of at least the following:

(A) Why the respirator is necessary and how improper fit, use, or maintenance can compromise the protective effect of the respirator;

(B) What the limitations and capabilities of the respirator are;

(C) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;

(D) How to inspect, put on and remove, use, and check the seals of the respirator;

(E) What the procedures are for maintenance and storage of the respirator;

(F) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and

(G) The general requirements of this rule.

(b) Training must be in a language or form that workers understand.

(c) Training must be complete before workers use respirators.

(d) Retrain respirator users annually and when these situations happen:

(A) Changes in the work or the type of respirator make previous training obsolete;

(B) Inadequacies in the employee's knowledge or use of the respirator indicate that they no longer have the basic understanding or skill; or

(C) Any other situation arises in which retraining appears necessary to ensure safe respirator use.

(e) An employer who can demonstrate that a new employee has training within the last 12 months that addresses the elements in paragraph (k)(1)(i) through (vii) does not have to repeat that training if, the employee can demonstrate knowledge of those element(s). Previous training not repeated initially by the employer must be provided no later than 12 months from the date of the previous training.

(f) Provide every voluntary respirator user with the basic advisory information in Appendix D. Any written or oral format is acceptable.

(12) Program evaluation.

(a) Evaluate the workplace as necessary to ensure effective use of the current written program.

(b) Regularly consult your users to get their views on your program's effectiveness and to identify problems. Correct the problem. Things to assess include at least:

(A) Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);

(B) Users have and use the correct respirator for their exposure hazards;

(C) Proper respirator use; and

(D) Proper respirator maintenance.

(13) Recordkeeping.

(a) Medical evaluation. Retain and make available, according to 437-002-1910.1020, all medical evaluations required by this standard.

(b) Fit testing.

(A) You must keep a record of qualitative and quantitative fit tests for each user including:

(i) The name or identification of the employee;

(ii) Type of fit test;

(iii) Specific make, model, style, and size of respirator tested;

(iv) Date of test; and

(v) The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.

(B) Keep fit test records until records of a new test replace them.

(c) You must keep a written copy of your current respirator program.

(d) On request, you must make written records required by this standard, available to the OR-OSHA Administrator or their designee for examination or copying.

(14) Appendices.

(a) Compliance with Appendix A, Appendix B-1, Appendix B-2, and Appendix C of this rule is mandatory.

(b) Appendix D of this rule is mandatory and does not create any additional obligations or detract from any existing obligations.

(15) Effective Date. OAR 437-004-1041, Respiratory Protection, is effective March 1, 2007.

Stat. Auth.: ORS 654.025(2) and 656.726(4).

Stats. Implemented: ORS 654.001 through 654.295.

OAR 437, DIVISION 5
OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR SHIPYARD
EMPLOYMENT

437-005-0001

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 1915, revised as of 7/1/03, and any subsequent amendments published in the Federal Register as listed below:

(1) Subdivision A

(a) 29 CFR 1915.1. Purpose and authority, published 4/20/82, Federal Register (FR) vol. 47, p. 16984.

(b) 29 CFR 1915.2. Scope and application, published 4/20/82, FR vol. 47, p. 16984.

(c) 29 CFR 1915.3. Responsibility, published 4/20/82, FR vol. 47, p. 16984.

(d) 29 CFR 1915.4. Definitions, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(e) 29 CFR 1915.5. Incorporation by reference, published 5/24/96, FR vol. 61, no. 102, p. 26359; amended 7/3/02, FR vol. 67, no. 128, p. 44541; 9/15/04, FR vol. 69, p. 55667.

(f) 29 CFR 1915.6. Commercial diving operations, published 4/20/82, FR vol. 47, p. 16984.

(g) 29 CFR 1915.7. Competent person, published 4/20/82, FR vol. 47, p. 16984; amended 6/7/89, FR vol. 54, p. 24334; 7/25/94, FR vol. 59, p. 37856.

(2) Subdivision B

(a) 29 CFR 1915.11. Scope, application and definitions applicable to this Subpart, published 4/20/82, FR vol. 47, p. 16984; amended 7/25/94, FR vol. 59, p. 37857.

(b) 29 CFR 1915.12. Precautions before entering confined and enclosed spaces and other dangerous atmospheres, published 4/20/82, FR vol. 47, p. 16984; amended 7/1/93, FR vol. 58, no. 125, p. 35514; amended 7/25/94, FR vol. 59, p. 37858 ; 3/16/95, FR vol. 60, no. 51, p. 14218.

(c) 29 CFR 1915.13. Cleaning and other cold work, published 4/20/82, FR vol. 47, p. 16984; amended 7/25/94, FR vol. 59, p. 37859.

(d) 29 CFR 1915.14. Hot work, published 4/20/82, FR vol. 47, p. 16984; amended 7/25/94, FR vol. 59, p. 37860; 3/16/95, FR vol. 60, no. 51, p. 14218; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(e) 29 CFR 1915.15. Maintenance of safe conditions, published 4/20/82, FR vol. 47, p. 16984; amended 7/25/94, FR vol. 59, p. 37860; 3/16/95, FR vol. 60, no. 51, p. 14218; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(f) 29 CFR 1915.16. Warning signs and labels, published 4/20/82, FR vol. 47, p. 16984; amended 7/25/94, FR vol. 59, p. 37861.

Appendix A to Subpart B published 7/25/94, FR vol. 59, p. 37816; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

Appendix B to Subpart B published 7/25/94, FR vol. 59, p. 37816.

(3) Subdivision C

(a) 29 CFR 1915.31. Scope & application of subdivision, published 4/20/82, FR vol. 47, p. 16984.

(b) 29 CFR 1915.32. Toxic cleaning solvents, published 4/20/82, FR vol. 47, p. 16984; 5/24/96, FR vol. 61, no. 102, p. 26351.

(c) 29 CFR 1915.33. Chemical paint & preservative remover, published 4/20/82, FR vol. 47, p. 16984; 5/24/96, FR vol. 61, no. 102, p. 26351.

(d) 29 CFR 1915.34. Mechanical paint removers, published 4/20/82, FR vol. 47, p. 16984; 5/24/96, FR vol. 61, no. 102, p. 26351.

(e) 29 CFR 1915.35. Painting, published 4/20/82, FR vol. 47, p. 16984; 5/24/96, FR vol. 61, no. 102, p. 26351; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(f) 29 CFR 1915.36. Flammable liquids, published 4/20/82, FR vol. 47, p. 16984.

(4) Subdivision D

(a) 29 CFR 1915.51. Ventilation & protection in welding, cutting and heating, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(b) 29 CFR 1915.52. Fire prevention, published 4/20/82, FR vol. 47, p. 16984; REMOVED 9/15/04, FR vol. 69, p. 55667.

(c) 29 CFR 1915.53. Welding, cutting and heating of hollow metal containers & structure not covered by 1915.12, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(d) 29 CFR 1915.55. Gas welding & cutting, published 4/20/82, FR vol. 47, p. 16984.

(e) 29 CFR 1915.56. Arc welding and cutting, published 4/20/82, FR vol. 47, p. 16984.

(f) 29 CFR 1915.57. Uses of fissionable material in ship repairing and shipbuilding, published 4/20/82, FR vol. 47, p. 16984.

(5) Subdivision E

(a) 29 CFR 1915.71. Scaffolds or staging, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(b) 29 CFR 1915.72. Ladders, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(c) 29 CFR 1915.73. Guarding of deck openings and edges, published 4/20/ 82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(d) 29 CFR 1915.74. Access to vessels, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(e) 29 CFR 1915.75. Access to and guarding of dry docks and marine railways, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(f) 29 CFR 1915.76. Access to cargo spaces and confined spaces, published 4/20/82, FR vol. 47, p. 16984.

(g) 29 CFR 1915.77. Working surfaces, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(6) Subdivision F

(a) 29 CFR 1915.91. Housekeeping, published 4/ 20/82, FR vol. 47, p. 16984.

(b) 29 CFR 1915.92. Illumination, published 4/20/ 82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(c) 29 CFR 1915.93. Utilities, published 4/20/82, FR vol. 47, p. 16984.

(d) 29 CFR 1915.94. Work in confined or isolated spaces, published 4/20/82, FR vol. 47, p. 16984.

(e) 29 CFR 1915.95. Ship repairing and shipbuilding work on or in the vicinity of radar and radio, published 4/20/82, FR vol. 47, p. 16984; amended 4/30/ 84, FR vol. 49, p. 18295; 6/7/89, FR vol. 54, p. 24334.

(f) 29 CFR 1915.96. Work in or on lifeboats, published 4/20/82, FR vol. 47, p. 16984; amended 8/24/ 87, FR vol. 52, p. 31886.

(g) 29 CFR 1915.97. Health and sanitation, published 4/20/82, FR vol. 47, p. 16984; amended 8/24/87, FR vol. 52, p. 31886; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(h) 29 CFR 1915.98. First aid, published 4/20/82, FR vol. 47 p. 16984.

(NOTE: 29 CFR 1915.99, Hazard Communication, was redesignated as 1915.1200 on 7/1/93, FR vol. 58, no. 125, p. 35514.)

(i) 29 CFR 1915.100. Retention of DOT markings, placards and labels, published 7/19/94, Federal Register, vol. 59, no. 137, p. 36700.

(7) Subdivision G

(a) 29 CFR 1915.111. Inspection, published 4/20/ 82, FR vol. 47, p. 16984.

(b) 29 CFR 1915.112. Ropes, chains and slings, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

- (c) 29 CFR 1915.113. Shackles and hooks, published 4/20/82, FR vol. 47, p. 16984; amended 9/29/86, FR vol. 51, p. 34562.
- (d) 29 CFR 1915.114. Chain falls and pull-lifts, published 4/20/82, FR vol. 47, p. 16984.
- (e) 29 CFR 1915.115. Hoisting and hauling equipment, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
- (f) 29 CFR 1915.116. Use of gear, published 4/20/ 82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
- (g) 29 CFR 1915.117. Qualifications of operators, published 4/20/82, FR vol. 47, p. 16984.
- (h) 29 CFR 1915.118. Tables, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
- (8) Subdivision H
 - (a) 29 CFR 1915.131. General precautions, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
 - (b) 29 CFR 1915.132. Portable electric tools, published 4/20/82, FR vol. 47, p. 16984.
 - (c) 29 CFR 1915.133. Hand tools, published 4/20/ 82, FR vol. 47, p. 16984.
 - (d) 29 CFR 1915.134. Abrasive wheels, published 4/20/82, FR vol. 47, p. 16984; 5/24/96, FR vol. 61, no. 102, p. 26351; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
 - (e) 29 CFR 1915.135. Powder actuated fastening tools, published 4/20/82, FR vol. 47, p. 16984; 5/24/96, FR vol. 61, no. 102, p. 26351.
 - (f) 29 CFR 1915.136. Internal combustion engines other than ship's equipment, published 4/20/82, FR vol. 47, p. 16984.
- (9) Subdivision I
 - (a) 29 CFR 1915.151. Scope, application and definitions, published 5/24/96, FR vol. 61, no. 102, p. 26352.
 - (b) 29 CFR 1915.152. General requirements, published 5/24/96, FR vol. 61, no. 102, p. 26352; 6/13/96, FR vol. 61, p. 29957; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
 - (c) 29 CFR 1915.153. Eye and face protection, published 5/24/96, FR vol. 61, no. 102, p. 26353.
 - (d) 29 CFR 1915.154. Respiratory protection, published 5/24/96, FR vol. 61, no. 102, p. 26354.
 - (e) 29 CFR 1915.155. Head protection, published 5/24/96, FR vol. 61, no. 102, p. 26354.
 - (f) 29 CFR 1915.156. Foot protection, published 5/24/96, FR vol. 61, no. 102, p. 26354.
 - (g) 29 CFR 1915.157. Hand and body protection, published 5/24/96, FR vol. 61, no. 102, p. 26354.
 - (h) 29 CFR 1915.158. Lifesaving equipment, published 5/24/96, FR vol. 61, no. 102, p. 26354; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
 - (i) 29 CFR 1915.159. Personal fall arrest systems (PFAS), published 5/24/96, FR vol. 61, no. 102, p. 26355; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
 - (j) 29 CFR 1915.160. Positioning device systems, published 5/24/96, FR vol. 61, no. 102, p. 26356; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
- Appendix A to Subpart I, published 5/24/96, FR vol. 61, no. 102, p. 26356; amended 7/3/02, FR vol. 67, no. 128, p. 44541.
- Appendix B to Subpart I, published 5/24/96, FR vol. 61, no. 102, p. 26358; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(10) Subdivision J

(a) 29 CFR 1915.161. Scope and application of subdivision, published 4/20/ 82, FR vol. 47, p. 16984.

(b) 29 CFR 1915.162. Ship's boilers, published 4/ 20/82, FR vol. 47, p. 16984.

(c) 29 CFR 1915.163. Ship's piping systems, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(d) 29 CFR 1915.164. Ship's propulsion machinery, published 4/20/82, FR vol. 47, p. 16984.

(e) 29 CFR 1915.165. Ship's decking machinery, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(11) Subdivision K

(a) 29 CFR 1915.171. Scope and application of subdivision, published 4/20/ 82, FR vol. 47, p. 16984.

(b) 29 CFR 1915.172. Portable air receiver and other unfired pressure vessels, published 4/20/82, FR vol. 47, p. 16984; amended 9/29/86, FR vol. 51, p. 34562; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(c) 29 CFR 1915.173. Drums and containers, published 4/20/82, FR vol. 47, p. 16984.

(12) Subdivision L

(a) 29 CFR 1915.181. Electrical circuits and distribution boards, published 4/20/82, FR vol. 47, p. 16984; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(13) Subdivisions M-O (Reserved)

(14) Subdivision P

(a) 29 CFR 1915.501. General provisions, published 9/15/04, FR vol. 69, p. 55667.

(b) 29 CFR 1915.502. Fire safety plan, published 9/15/04, FR vol. 69, p. 55667.

(c) 29 CFR 1915.503. Precautions for hot work, published 9/15/04, FR vol. 69, p. 55667.

(d) 29 CFR 1915.504. Fire watches, published 9/15/04, FR vol. 69, p. 55667.

(e) 29 CFR 1915.505. Fire response, published 9/15/04, FR vol. 69, p. 55667.

(f) 29 CFR 1915.506. Hazards of fixed extinguishing systems on board vessels and vessel sections, published 9/15/04, FR vol. 69, p. 55667.

(g) 29 CFR 1915.507. Land-side fire protection systems, published 9/15/04, FR vol. 69, p. 55667.

(h) 29 CFR 1915.508. Training, published 9/15/04, FR vol. 69, p. 55667.

(i) 29 CFR 1915.509. Definitions applicable to this subpart, published 9/15/04, FR vol. 69, p. 55667.

Appendix A to Subpart P, published 9/15/04, FR vol. 69, p. 55667.

(15) Subdivision Q-Y (Reserved)

(16) Subdivision Z

(a) 29 CFR 1915.1000, Air Contaminants, published 7/1/93, FR vol. 58, no. 125, p. 35514; 11/4/96, FR vol. 61, p. 56856; 1/10/97, FR vol. 62, p. 1619; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

(b) 29 CFR 1915.1001, Asbestos, published 7/1/93, FR vol. 58, no. 125, p. 35514; 8/10/94, FR vol. 59, no. 153, p. 41080; 6/29/95, FR vol. 60, no. 125, pp. 33974-34002; 7/13/95, FR vol. 60, p. 36043; 9/29/95, FR vol. 60, p. 50411; 8/23/96, FR vol. 61, p. 43454; 6/29/98, FR vol. 63, no. 124, p. 35137; amended 7/3/02, FR vol. 67, no. 128, p. 44541; 1/5/05, FR vol. 69, p. 1111; 4/3/06, FR vol. 71, no. 63, p. 16669; 8/24/06, FR vol. 71, no. 164, p. 50122.

Appendix A to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964; amended 6/29/95, FR vol. 60, p. 33972.

Appendix B to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964; amended 6/29/95, FR vol. 60, p. 33972.

Appendix C to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964; amended 7/3/02, FR vol. 67, no. 128, p. 44541.

Appendix D to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964.

Appendix E to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964; amended 6/29/95, FR vol. 60, p. 33972.

Appendix F to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964; amended 6/29/95, FR vol. 60, p. 33972.

Appendix G to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964.

Appendix H to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964; amended 6/29/95, FR vol. 60, p. 33972.

Appendix I to 1915.1001, published 7/1/93, FR vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964.

Appendix J to 1915.1001, published 8/10/94, FR vol. 59, p. 40964.

Appendix K to 1915.1001, published 8/10/94, FR vol. 59, p. 40964; amended 6/29/95, FR vol. 60, p. 33972.

Appendix L to 1915.1001, published 7/1/93, vol. 58, p. 35553; amended 8/10/94, FR vol. 59, p. 40964; amended 2/21/95, FR vol. 60, p. 9624; amended 6/28/95, FR vol. 60, p. 33343; amended 6/29/95, FR vol. 60, p. 33972; amended 7/13/95, FR vol. 60, p. 36043; amended 9/29/95, FR vol. 60, p. 50411; amended 2/13/96, FR vol. 61, p. 5507; amended 8/23/96, FR vol. 61, p. 43454.

(c) 29 CFR 1915.1002. Coal tar pitch volatiles; interpretation of term, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.

(d) 29 CFR 1915.1003. 13 Carcinogens (4-Nitrobiphenyl, etc.), published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

(e) 29 CFR 1915.1004. alpha-Naphthylamine, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

(f) 29 CFR 1915.1005. (Reserved)

(g) 29 CFR 1915.1006. Methyl chloromethyl ether, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

(h) 29 CFR 1915.1007. 3,3'Dichlorobenzidene (and its salts), published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

(i) 29 CFR 1915.1008. bis-Chloromethyl ether, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

(j) 29 CFR 1915.1009. beta-Naphthylamine, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

(k) 29 CFR 1915.1010. Benzidine, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

(l) 29 CFR 1915.1011. 4-Aminodiphenyl, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.

- (m) 29 CFR 1915.1012. Ethyleneimine, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.
- (n) 29 CFR 1915.1013. beta-Propiolactone, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.
- (o) 29 CFR 1915.1014. 2-Acetylaminofluorene, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.
- (p) 29 CFR 1915.1015. 4-Dimethylaminoazobenzene, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.
- (q) 29 CFR 1915.1016. N-Nitrosodimethylamine, published 7/1/93, FR vol. 58, no. 125, p. 35514; 3/7/96, FR vol. 61, no. 46, p. 9245; 6/20/96, FR vol. 61, p. 31427.
- (r) 29 CFR 1915.1017. Vinyl chloride, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (s) 29 CFR 1915.1018. Inorganic arsenic, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (t) 29 CFR 1915.1020 Access to employee exposure and medical records, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (u) 29 CFR 1915.1025. Lead, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (v) 29 CFR 1915.1026 Chromium (VI), published 2/28/06, Federal Register, vol. 71, no. 39, p. 10100; 6/23/06, FR vol. 71, no. 121, p. 36008.
- (w) 29 CFR 1915.1027. Cadmium, published 9/14/92, FR vol. 57, no. 178. pp. 42388-42452; amended 4/23/93, FR vol. 58, no. 177, p. 21778; 1/3/94, FR vol. 59, no. 1, pp. 146-215; 6/20/96, FR vol. 61, p. 31427.
- (x) 29 CFR 1915.1028. Benzene, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (y) 29 CFR 1915.1030. Bloodborne pathogens, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (z) 29 CFR 1915.1044. 1,2 dibromo-3-chloropropane, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (aa) 29 CFR 1915.1045. Acrylonitrile, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (bb) 29 CFR 1915.1047. Ethylene oxide, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (cc) 29 CFR 1915.1048. Formaldehyde, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (dd) 29 CFR 1915.1050. Methylenedianiline, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.
- (ee) 29 CFR 1915.1052 Methylene Chloride, published 1/10/97, Federal Register, vol. 62, no. 7, p. 1619.
- (ff) 29 CFR 1915.1120 Access to employee exposure and medical records has been redesignated to §1915.1020.
- (Note: 29 CFR 1915.99, Hazard Communication was redesignated as 1915.1200 on 7/1/93, FR vol. 58, no. 125, p. 35514.)
- (gg) 29 CFR 1915.1200. Hazard communication, published 9/24/87, FR vol. 52, p. 31886; amended 4/27/88, FR vol. 53, p. 15035; 2/15/89, FR vol. 54, p. 6888; 6/7/89, FR vol. 54, p. 24334; 7/1/93, FR vol. 58, no. 125, p. 35514; 2/9/94, FR vol. 59, no. 27,

pp. 6126-6184; 4/13/ 94, FR vol.59, no.71, pp. 17478-17479; 12/22 /94, FR vol. 59, no. 245, p. 65947; 6/20/96, FR vol. 61, p. 31427.

(hh) 29 CFR 1915.1450. Occupational exposure to hazardous chemicals in laboratories, published 7/1/93, FR vol. 58, no. 125, p. 35514; 6/20/96, FR vol. 61, p. 31427.

Stat. Auth.: ORS 654.025(2) and 656.726(4).

Stats. Implemented: ORS 654.001 to 654.295.