



Oregon Administrative Rules
Chapter 437

Division 3
Construction

Rollover Protective Structures: Overhead Protection

Subdivision

W

Administrative
Order 3-2019



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

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

- **Division 1** General Administrative Rules
- **Division 2** General Occupational Safety and Health Rules
- **Division 3** Construction
- **Division 4** Agriculture
- **Division 5** Maritime Activities
- **Division 7** Forest Activities
- **Oregon Revised Statutes (ORS) 654** The Oregon Safe Employment Act (OSEAct)

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

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

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

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

Chapter	Division	Part	Subpart (Subdivision)	Section	Paragraphs
437	002	1910	G	.303	(a)(1)(i)(A)(1)

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

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

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

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

The rules referenced in this division are available for viewing in the Office of the Secretary of State, Oregon State Archives Building, Salem, Oregon, or the Central Office, Oregon Occupational Safety and Health Division of the Department of Consumer and Business Services, 350 Winter St. NE, Salem, Oregon, and on our website at osha.oregon.gov.

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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 regulations printed as part of the Code of Federal Regulations, in the Federal Register:

(23) Subdivision W – Rollover Protective Structures: Overhead Protection.

- (a) 29 CFR 1926.1000 Rollover protective structures (ROPS) for material handling equipment, published 4/6/79, FR vol. 44, p. 20940, amended 5/14/19, FR vol. 84, no. 93, p. 21576.
- (b) 29 CFR 1926.1001 Minimum performance criteria for rollover protective structure for designated scrapers, loaders, dozers, graders, and crawler tractors, published 4/6/79, FR vol. 44, p. 20940, amended 5/14/19, FR vol. 84, no. 93, p. 21576.
- (c) 29 CFR 1926.1002 Protective frame (ROPS) test procedures and performance requirements for wheel-type agricultural and industrial tractors used in construction, published 7/20/06, FR vol. 71, no. 139, p. 41127, amended 5/14/2019, FR vol. 84, no. 93, p. 21576.
- (d) 29 CFR 1926.1003 Overhead protection for operators of agricultural and industrial tractors, published 2/28/06, FR vol. 71, no. 39, p. 9909, amended 5/14/19, FR vol. 84, no. 93, p. 21576.

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.

Hist: APD Admin. Order 5-1989, f. 3/31/89, ef. 5/1/89 (temp).
 APD Admin. Order 8-1989, f. 7/7/89, ef. 7/7/89 (perm).
 APD Admin. Order 14-1989, f. 7/20/89, ef. 8/1/89 (temp).
 APD Admin. Order 15-1989, f. 9/13/89, ef. 9/13/89 (perm).
 APD Admin. Order 16-1989 (temp), f. 9/13/89, ef. 9/13/89.
 OR-OSHA Admin. Order 2-1989, f. 10/17/89, ef. 10/17/89.
 OR-OSHA Admin. Order 3-1990, f. 1/19/90, ef. 1/19/90 (temp).
 OR-OSHA Admin. Order 7-1990, f. 3/2/90, ef. 3/2/90 (perm).
 OR-OSHA Admin. Order 8-1990, f. 3/30/90, ef. 3/30/90.
 OR-OSHA Admin. Order 13-1990, f. 6/28/90, ef. 8/1/90 (temp).
 OR-OSHA Admin. Order 19-1990, f. 8/31/90, ef. 8/31/90 (perm).
 OR-OSHA Admin. Order 27-1990, f. 12/12/90, ef. 2/1/91.
 OR-OSHA Admin. Order 6-1991, f. 3/18/91, ef. 4/15/91.
 OR-OSHA Admin. Order 7-1991, f. 4/25/91, ef. 4/25/91.
 OR-OSHA Admin. Order 15-1991, f. 12/13/91, ef. 12/13/91.
 OR-OSHA Admin. Order 16-1991, f. 12/16/91, ef. 1/1/92.
 OR-OSHA Admin. Order 6-1992, f. 5/18/92, ef. 5/18/92.
 OR-OSHA Admin. Order 11-1992, f. 10/9/92, ef. 10/9/92.
 OR-OSHA Admin. Order 1-1993, f. 1/22/93, ef. 1/22/93.
 OR-OSHA Admin. Order 16-1993, f. 11/1/93, ef. 11/1/93 (Lead).
 OR-OSHA Admin. Order 1-1994, f. 4/27/94, ef. 4/27/94.
 OR-OSHA Admin. Order 4-1994, f. 8/4/94, ef. 8/4/94 (HazCom).
 OR-OSHA Admin. Order 6-1994, f. 9/30/94, ef. 9/30/94.

OR-OSHA Admin. Order 1-1995, f. 1/19/95, ef. 1/19/95 (DOT markings, placards & labels).
OR-OSHA Admin. Order 3-1995, f. 2/22/95, ef. 2/22/95 (Haz Waste).
OR-OSHA Admin. Order 4-1995, f. 3/29/95, ef. 3/29/95 (Asbestos).
OR-OSHA Admin. Order 5-1995, f. 4/6/95, ef. 4/6/95 (HazCom).
OR-OSHA Admin. Order 6-1995, f. 4/18/95, ef. 6/1/95 (Fall Protection).
OR-OSHA Admin. Order 8-1995, f. 8/25/95, ef. 8/25/95 (Asbestos).
OR-OSHA Admin. Order 5-1996, f. 11/29/96, ef. 11/29/96.
OR-OSHA Admin. Order 6-1996, f. 11/29/96, ef. 11/29/96.
OR-OSHA Admin. Order 2-1997, f. 3/12/97, ef. 3/12/97.
OR-OSHA Admin. Order 4-1997, f. 4/2/97, ef. 4/2/97.
OR-OSHA Admin. Order 6-1997, f. 5/2/97, ef. 5/2/97.
OR-OSHA Admin. Order 7-1997, f. 9/15/97, ef. 9/15/97 (Fall Protection).
OR-OSHA Admin. Order 8-1997, f. 11/14/97, e. 11/14/97 (Methylene Chloride).
OR-OSHA Admin. Order 1-1998, f. 2/13/98, e. 2/13/98 (Methylene Chloride).
OR-OSHA Admin. Order 3-1998, f. 7/7/98, ef. 7/7/98 (Respiratory Protection).
OR-OSHA Admin. Order 6-1998, f. 10/15/98, ef. 10/15/98 (Slings 3/H).
OR-OSHA Admin. Order 7-1998, f. 12/28/98, ef. 12/28/98 (Asbestos).
OR-OSHA Admin. Order 1-1999, f. 3/22/99, e. 3/22/99 (Methylene Chloride).
OR-OSHA Admin. Order 4-1999, f. 4/30/99, ef. 4/30/99.
OR-OSHA Admin. Order 6-1999, f. 5/26/99, ef. 5/26/99.
OR-OSHA Admin. Order 3-2000, f. 2/8/00, ef. 2/8/00.
OR-OSHA Admin. Order 3-2001, f. 2/5/01, ef. 2/5/01 (Fall Protection/Oregon Exceptions).
OR-OSHA Admin. Order 3-2002, f. 4/15/02, ef. 4/18/02 (Steel Erection).
OR-OSHA Admin. Order 5-2002, f. 6/28/02, ef. 10/1/03 (GFCI 3/K).
OR-OSHA Admin. Order 6-2002, f. 7/19/02, ef. 7/19/02 (Fall Protection/Steel Erection).
OR-OSHA Admin. Order 1-2003, f. 1/30/03, ef. 4/30/03 (3/Q Masonry Wall Bracing).
OR-OSHA Admin. Order 2-2003, f. 1/30/03, ef. 1/30/03 (3/G).
OR-OSHA Admin. Order 7-2003, f. 12/5/03, ef. 12/5/03 (3/O).
OR-OSHA Admin. Order 8-2003, f. 12/30/03, ef. 1/1/04 (3/R).
OR-OSHA Admin. Order 1-2005, f. 4/12/05, ef. 4/12/05 (3/D and 3/Z).
OR-OSHA Admin. Order 2-2006, f. 4/28/06, ef. 4/28/06 (3/R).
OR-OSHA Admin. Order 4-2006, f. 7/24/06, ef. 7/24/06.
OR-OSHA Admin. Order 5-2006, f. 8/7/06, ef. 1/1/07.
OR-OSHA Admin. Order 6-2006, f. 8/30/06, ef. 8/30/06.
OR-OSHA Admin. Order 10-2006, f. 11/30/06, ef. 11/30/06.
OR-OSHA Admin. Order 6-2007, f. 9/26/07, ef. 9/26/07 (3/O).
OR-OSHA Admin. Order 5-2008, f. 5/1/08, ef. 5/15/08 (PPE).
OR-OSHA Admin. Order 5-2009, f. 5/29/09, ef. 5/29/09.
OR-OSHA Admin. Order 3-2010, f. 6/10/10, ef. 6/15/10.
OR-OSHA Admin. Order 1-2011, f. 2/9/11, ef. 2/9/11.
OR-OSHA Admin. Order 4-2011, f. 12/8/11, ef. 12/8/11.
OR-OSHA Admin. Order 5-2011, f. 12/8/11, ef. 7/1/12.
OR-OSHA Admin. Order 1-2012, f. 4/10/12, ef. 4/10/12.
OR-OSHA Admin. Order 5-2012, f. 9/25/12, ef. 9/25/12.
OR-OSHA Admin. Order 1-2013, f. 2/14/13, ef. 2/14/13.
OR-OSHA Admin. Order 2-2013, f. 2/15/13, ef. 4/1/13.
OR-OSHA Admin. Order 4-2013, f. 7/19/13, ef. 7/19/13.
OR-OSHA Admin. Order 5-2013, f. 9/13/13, ef. 9/13/13.
OR-OSHA Admin. Order 6-2013, f. 10/9/13, ef. 10/9/13.
OR-OSHA Admin. Order 7-2013, f. 12/12/13, ef. 12/12/13.
OR-OSHA Admin. Order 6-2014, f. 10/28/14, ef. 5/1/15.
OR-OSHA Admin. Order 7-2014, f. 11/7/14, ef. 11/9/14.
OR-OSHA Admin. Order 3-2015, f. 10/9/15, ef. 1/1/16.
OR-OSHA Admin. Order 1-2016, f. 3/1/16, ef. 1/1/17.
OR-OSHA Admin. Order 3-2016, f. 8/19/16, ef. 8/19/16.
OR-OSHA Admin. Order 4-2016, f. 9/7/16, ef. 9/7/16.
OR-OSHA Admin. Order 1-2019, f. 5/9/19, ef. 5/9/19.
OR-OSHA Admin. Order 3-2019, f. 10/29/19, ef. 10/29/19.

1926.1000 Scope

- (a) Coverage. This section applies to the following types of material handling equipment: To all rubber-tired, self-propelled scrapers, rubber-tired front-end loaders, rubber-tired dozers, wheel-type agricultural and industrial tractors, crawler tractors, crawler-type loaders, and motor graders, with or without attachments, that are used in construction work. This Subpart also applies to compactors and rubber-tired skid-steer equipment, with or without attachments, manufactured after July 15, 2019, that are used in construction work. This requirement does not apply to side-boom pipelaying tractors.
- (b) Equipment manufactured before July 15, 2019. Material handling machinery described in paragraph (a) of this section (excluding compactors and rubber-tired skid-steer equipment) manufactured before July 15, 2019, shall be equipped with rollover protective structures that meet the minimum performance standards prescribed in 1926.1001(b), as applicable. Agricultural and industrial tractors used in construction shall be equipped with rollover protective structures that meet the minimum performance standards prescribed in 1926.1002(b), as applicable. When overhead protection is provided on agricultural and industrial tractors, the overhead protection shall meet the minimum performance standards prescribed in 1926.1003(b), as applicable.
- (c) Equipment manufactured on or after July 15, 2019. Material handling machinery described in paragraph (a) of this section manufactured on or after July 15, 2019, shall be equipped with rollover protective structures that meet the minimum performance standards prescribed in 1926.1001(c). Agricultural and industrial tractors used in construction shall be equipped with rollover protective structures that meet the minimum performance standards prescribed in 1926.1002(c). When overhead protection is provided on agricultural and industrial tractors, the overhead protection shall meet the minimum performance standards prescribed in 1926.1003(c).

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

Stats. Implemented: ORS 654.001 through 654.295.

Hist: APD Admin. Order 4-1989, f. 3/31/89, ef. 5/1/89 (temp).

APD Admin. Order 8-1989, f. 7/7/89, ef. 7/7/89 (perm).

OR-OSHA Admin. Order 3-2019, f. 10/29/19, ef. 10/29/19.

1926.1001 Minimum Performance Criteria for Rollover Protective Structures for Designated Scrapers, Loaders, Dozers, Graders, Crawler Tractors, Compactors, and Rubber-Tired Skid Steer Equipment

- (a) General. This section prescribes minimum performance criteria for rollover protective structures (ROPS) for rubber-tired self-propelled scrapers; rubber-tired front-end loaders and rubber-tired dozers; crawler tractors, and crawler-type loaders, motor graders, compactors, and rubber-tired skid steer equipment.
- (b) Equipment manufactured before July 15, 2019. For equipment listed in paragraph (a) of this section (excluding compactors and rubber-tired skid steer equipment) manufactured before July 15, 2019, the protective frames shall conform to the following Society of Automotive Engineers Recommended Practices as applicable: SAE J320a, Minimum Performance Criteria for Roll-Over Protective Structure for Rubber-Tired, Self-Propelled Scrapers; SAE J394, Minimum Performance Criteria for Roll-Over Protective Structure for Rubber-Tired Front End Loaders and Rubber-Tired Dozers; SAE J395, Minimum Performance Criteria for Roll-Over Protective Structure for Crawler Tractors and Crawler-Type Loaders; SAE J396, Minimum Performance Criteria for Roll-Over Protective Structure for Motor Graders; and SAE J397, Critical Zone Characteristics and Dimensions for Operators of Construction and Industrial Machinery, as applicable (each incorporated by reference, see 1926.6), or comply with the consensus standard (ISO 3471:2008) listed in paragraph (c) of this section.
- (c) Equipment manufactured on or after July 15, 2019. For equipment listed in paragraph (a) of this section manufactured on or after July 15, 2019, the protective frames shall meet the test and performance requirements of the International Organization for Standardization (ISO) standard ISO 3471:2008 Earth-Moving Machinery—Roll-over protective structures—Laboratory tests and performance requirements (incorporated by reference, see 1926.6).

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

Stats. Implemented: ORS 654.001 through 654.295.

Hist: APD Admin. Order 4-1989, f. 3/31/89, ef. 5/1/89 (temp).

APD Admin. Order 8-1989, f. 7/7/89, ef. 7/7/89 (perm).

OR-OSHA Admin. Order 3-2019, f. 10/29/19, ef. 10/29/19.

1926.1002 Protective Frame (Roll-Over Protective Structures, Known as ROPS) for Wheel-type Agricultural and Industrial Tractors Used in Construction

- (a) General. This section sets forth requirements for frames used to protect operators of wheel-type agricultural and industrial tractors used in construction work that will minimize the possibility of operator injury resulting from accidental upsets during normal operation. See paragraph (e) of this section for definitions of agricultural and industrial tractors.
- (b) Equipment manufactured before July 15, 2019. For equipment manufactured before July 15, 2019, the protective frames shall meet the test and performance requirements of the Society of Automotive Engineers Standard J334a, Protective Frame Test Procedures and Performance Requirements and J168, Protective enclosures-test procedures and performance requirements, as applicable (incorporated by reference, see 1926.6), or comply with the consensus standard (ISO 5700:2013) listed in paragraph (c) of this section.
- (c) Equipment manufactured on or after July 15, 2019. For equipment manufactured on or after July 15, 2019, the protective frames shall meet the test and performance requirements of the International Organization for Standardization (ISO) standard ISO 5700:2013, Tractors for agriculture and forestry—Roll-over protective structures—static test method and acceptance conditions or ISO 3471:2008 Earth-Moving Machinery—Roll-over protective structures— Laboratory tests and performance requirements (incorporated by reference, see 1926.6).
- (d) Overhead protection requirements. For overhead protection requirements, see 1926.1003.
- (e) Definitions applicable to this section.
- (1) **“Agricultural tractor”** means a wheel-type vehicle of more than 20 engine horsepower, used in construction work, that is designed to furnish the power to pull, propel, or drive implements. (SAE standard J333a-1970) “Operator protection for wheel-type agricultural and industrial tractors”) defines “agricultural tractor” as a “wheel-type vehicle of more than 20 engine horsepower designed to furnish the power to pull, carry, propel, or drive implements that are designed for agricultural usage.” Since this part 1926 applies only to construction work, the SAE definition of “agricultural tractor” is adopted for purposes of this subpart.
 - (2) **“Industrial tractor”** means that class of wheel type tractors of more than 20 engine horsepower (other than rubber-tired loaders and dozers described in 29 CFR 1926.1001), used in operations such as landscaping, construction services, loading, digging, grounds keeping, and highway maintenance.

[61 FR 9227, March 7, 1996; 70 FR 76985, Dec. 29, 2005, as amended at 71 FR 41129, July 20, 2006; 84 FR 21416, May 14, 2019.]

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

Stats. Implemented: ORS 654.001 through 654.295.

Hist: APD Admin. Order 4-1989, f. 3/31/89, ef. 5/1/89 (temp).

APD Admin. Order 8-1989, f. 7/7/89, ef. 7/7/89 (perm).

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

OR-OSHA Admin. Order 5-2006, f. 8/7/06, ef. 1/1/07.

OR-OSHA Admin. Order 3-2019, f. 10/29/19, ef. 10/29/19.

1926.1003 Overhead Protection for Operators of Agricultural and Industrial Tractors Used in Construction

- (a) General. This section sets forth requirements for overhead protection used to protect operators of wheel-type agricultural and industrial tractors used in construction work that will minimize the possibility of operator injury resulting from overhead hazards such as flying and falling objects, and from the cover itself in the event of accidental upset.
- (b) Equipment manufactured before July 15, 2019. When overhead protection is provided on wheel-type agricultural and industrial tractors manufactured before July 15, 2019, the overhead protection shall be designed and installed according to the requirements contained in the test and performance requirements of Society of Automotive Engineers Standard J167, Protective Frame with Overhead Protection-Test Procedures and Performance Requirements, which pertains to overhead protection requirements (incorporated by reference, see 1926.6) or comply with the consensus standard (ISO 27850:2013) listed in paragraph (c) of this section.
- (c) Equipment manufactured on or after July 15, 2019. When overhead protection is provided on wheel-type agricultural and industrial tractors manufactured on or after July 15, 2019, the overhead protection shall be designed and installed according to the requirements contained in the test and performance requirements of the International Organization for Standardization (ISO) standard ISO 27850:2013, Tractors for agriculture and forestry—Falling object protective structures—Test procedures and performance requirements, which pertains to overhead protection requirements (incorporated by reference, see 1926.6).
- (d) Site clearing. In the case of machines to which 1926.604 (relating to site clearing) also applies, the overhead protection may be either the type of protection provided in 1926.604, or the type of protection provided by this section.

[61 FR 9227, March 7, 1996; 70 FR 76987, Dec. 29, 2005; 84 FR 21578, May 14, 2019]

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

Stats. Implemented: ORS 654.001 through 654.295.

Hist: APD Admin. Order 8-1989, f. 7/7/89, ef. 7/7/89.

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

OR-OSHA Admin. Order 5-2006, f. 8/7/06, ef. 1/1/07.

OR-OSHA Admin. Order 3-2019, f. 10/29/19, ef. 10/29/19.

Historical Notes for Subdivision W

Note: The Accident Prevention Division adopted Division 3, Construction on a temporary basis effective May 1, 1989. It contained new and revised federal occupational safety and health rules for the Construction industry. APD is now announcing that these same rules have been duly filed for permanent adoption. Division 3, Construction replaced Oregon codes Division 83 and 84. Some individual rules from each of these divisions have been retained and adopted into the new Division 3 as Oregon initiated rules.

This is Oregon OSHA Administrative Order 8-1989, filed and effective July 7, 1989.

Note: Oregon OSHA adopts by reference corrections and technical amendments issued by federal OSHA. OSHA made simple corrections, deleted redundant provisions, and clarified and reorganized various other provisions throughout the standards. Thirteen similar standards for carcinogenic chemicals are consolidated under one single rule in General Industry and Maritime Activities. This action does not change the substantive requirements of the standards. These rule changes effect General Industry, Construction, and Maritime Activities standards.

This is Oregon OSHA Administrative Order 4-1997, filed and effective April 2, 1997.

Note: Oregon OSHA adopted federal amendments to roll-over protective structures (ROPS) in Construction as they appear in the Federal Registers dated December 29, 2005, February 28, 2006, and July 20, 2006 (minor corrections and technical amendments). This rulemaking reinstates the original construction standards that had been replaced in 1996 with references to national consensus standards for testing ROPS. This is in Oregon's Division 3/W, effecting 1926.1002, 1926.1003, and adds a new Appendix A that contains the graphics. The rule restores impact testing for protective frames on wheel-type tractors and an additional cold-temperature testing option under the construction standard. This rule also contains minor plain language revisions that will improve comprehension and compliance with the standards.

There is a delayed effective date in Oregon of January 1, 2007.

This is Oregon OSHA Administrative Order 5-2006, filed August 7, 2006, effective January 1, 2007.

Note: Oregon OSHA is adopting changes to their administrative (recordkeeping), general industry, and construction standards, and updating references in the maritime activity standards in response to federal OSHA's adoption of final rules published in the May 14, 2019 Federal Register. This is Phase IV of federal OSHA's Standards Improvement Project (SIP-IV), the fourth in a series of rulemakings to improve and streamline workplace safety and health standards. Oregon's response removes or revises rules or requirements within our corresponding rules that are outdated, duplicative, or inconsistent. This rulemaking is anticipated to reduce regulatory burden and compliance costs while maintaining or enhancing worker safety and health as well as worker privacy protections.

In Division 3S, Oregon OSHA adopted requirements to harmonize OSHA rule requirements with more recent consensus standards, both for signs and devices used to protect employees working near traffic, and for roll-over protective structures on certain equipment. This rulemaking gets rid of the Appendix A to Division 3/W.

This is Oregon OSHA Administrative Order 3-2019, filed and effective October 29, 2019.