

Table 1-E
Effective Oct. 1, 2023

The 2023 Oregon Electrical Specialty Code (OESC) is based on the 2023 edition of the National Fire Protection Association (NFPA) 70, National Electrical Code (NEC), approved as an American National Standard on Sept. 1, 2022.

Table 1-E shows the adopted amendments to the 2023 NEC as referenced in OAR 918-305-0010(2)(a).

The amendments are denoted as follows:

- Added language to the 2023 NEC is shown in underline
- Deleted language to the 2023 NEC is shown in strikethrough with shading.

Language contained in the 2023 NEC not listed in this table has not been amended by Oregon. See **OAR 918-305-0030** for other codes or publications that may impact electrical installations.

NEC Section	Amendment language
90.4(C)	<p>Specific Requirements and Alternative Methods. By special permission, the authority having jurisdiction may waive specific requirements in this <i>Code</i> or permit alternative methods where it is assured that equivalent objectives can be achieved by establishing and maintaining effective safety.</p> <p><u>Requests for special permission shall be made in writing to the authority having jurisdiction. Special permission must be granted in writing by the authority having jurisdiction and shall be obtained prior to the start of the electrical installation.</u></p>
90.4(D)	<p>New Products, Constructions, or Materials. This <i>Code</i> may require new products, constructions, or materials that may not yet be available at the time the <i>Code</i> is adopted. In such event, the authority having jurisdiction may permit the use of the products, constructions, or materials that comply with the most recent previous edition of this <i>Code</i> adopted by the jurisdiction.</p> <p><u>Where the NEC requires electrical products to be “listed” or “labeled”, the words “listed” or “labeled” shall have the same meaning as “certified electrical product” under ORS 479.530.</u></p> <p><u>The occupancy classification and use designations shall be established in accordance with the <i>Oregon Structural Specialty Code (OSSC)</i>, as stated on the construction documents by the registered design professional and approved by the building official.</u></p> <p><u>The electrical datum plane as used throughout the OESC shall be the Design Flood Elevation as determined by the flood plain administrator in accordance with the <i>Oregon Structural Specialty Code (OSSC)</i> or <i>Oregon Residential Specialty Code (ORSC)</i> as applicable.</u></p>
90.5(C)	<p>Explanatory Material. Explanatory material, such as references to other standards, references to related sections of this Code, or information related to a Code rule, is included in this Code in the form of informational notes or an informative annex. Unless the standard reference includes a date, the reference is to be considered as the latest edition of the standard <u>effective on Oct. 1, 2023</u>. Such notes are informational only and are not enforceable as requirements of this Code.</p>
100	<p><u>Alcoves. An area extending from, and returning to, the common wall of hallways, foyers, entries, and landings with a depth of not less than 600 mm (2 ft) and a length of not less than 900 mm (3 ft). (210) (OESC)</u></p> <hr/> <p>Critical Operations Data System. An information technology equipment system that <u>has been designated by the building owner as requires requiring</u> continuous operation for reasons of public safety, emergency management, national security, or business continuity.</p> <hr/> <p>Dormitory Unit. A space in a building where group sleeping accommodations are provided in one room, or in a series of closely associated rooms, for persons not members of the same family group, under joint occupancy and single management, as in college dormitories, or fraternity houses. (Source OSSC) A building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, but without individual cooking facilities.</p> <hr/> <p>Electrical Datum Plane. A specified vertical distance above the normal high-water level at which electrical equipment can be installed and electrical connections can be made.</p> <p><u>Informational note: See OESC 90.4(D) for additional information.</u></p>

NEC Section	Amendment language
100—cont.	<p>Fire Protection System. <u>Approved devices, equipment and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof. (Source OSSC)</u></p>
	<p>Separate Branch Circuit. <u>A circuit dedicated solely for the purpose intended without other devices, systems or equipment connected to the circuit. (620) (OESC)</u></p>
	<p>Structure. <u>That which is built or constructed, other than equipment or a post(s) or pole(s) with an attached meter base.</u></p>
	<p>Servicing. <u>The process of following a manufacturer's set of instructions or applicable industry standards to analyze, adjust, or perform prescribed actions upon equipment with the intention to preserve or restore the operational performance of the equipment. The inspection, testing, or repair of used equipment with listed or recognized components. (OESC)</u></p>
110.3(A)	<p>Examination. ...</p> <p>(8) <u>Cybersecurity for network-connected life safety equipment to address its ability to withstand unauthorized updates and malicious attacks while continuing to perform its intended safety functionality. The permit holder is not required to demonstrate compliance with this list item.</u></p>
110.10	<p>Circuit Impedance; Short-Circuit Current Ratings, and Other Characteristics. ...</p> <p><u>Exception No. 1: A temporary service may be energized without demonstrating compliance with this section. This exception is applied at the discretion of the supervising electrician.</u></p> <p><u>Exception No. 2: Fault-current values provided by the serving utility may be used to satisfy the labeling requirements.</u></p>
110.14(D)	<p>Terminal Connection Torque. <u>Tightening torque values for terminal connections shall be as indicated on equipment or in installation instructions provided by the manufacturer. An approved means shall be used to achieve the indicated torque value. The permit holder is not required to demonstrate compliance with this section.</u></p>
110.17	<p>Servicing and Maintenance of Equipment. <u>Servicing and electrical preventive maintenance of used electrical equipment by means of inspection, testing or repair with listed or recognized components shall be permitted, performed by qualified persons trained in servicing and maintenance of equipment and shall comply with the following:</u></p> <p>(1) <u>The servicing and electrical preventive maintenance shall be performed in accordance with the original equipment manufacturer's instructions and information included in the listing information, applicable industry standards, or as approved by the authority having jurisdiction.</u></p> <p>(2) <u>The servicing and electrical preventive maintenance shall be performed using identified replacement parts that are verified under applicable product standards. The replacement parts shall comply with at least one of the following:</u></p> <p>a. <u>Be provided by the original equipment manufacturer</u></p> <p>b. <u>Be designed by an engineer experienced in the design of replacement parts for the type of equipment being serviced or maintained</u></p> <p>e. <u>Be approved by the authority having jurisdiction</u></p>
110.20	<p>Reconditioned Equipment. <u>Reconditioned equipment shall be permitted except where prohibited elsewhere in this Code. Equipment that is restored to operating condition shall be reconditioned with identified replacement parts, verified under applicable standards, that are either provided by the original equipment manufacturer, or that are designed by an engineer experienced in the design of replacement parts for the type of equipment being reconditioned, or selected by the supervising electrician.</u></p> <p><u>Informational Note No. 1: See ANSI EERS 2018.</u></p> <p><u>Informational Note No. 2: See 110.17 and definition of Servicing.</u></p>
110.22(A)	<p>General. ...</p> <p><u>Informational Note: The location of the circuit source may include panel name, circuit number, or other information necessary to help service personnel to locate the circuit source disconnecting means.</u></p>

NEC Section**Amendment language**

110.24(A) Field Marking. ...

Exception No. 1: A temporary service may be energized without demonstrating compliance with this section. This exception is applied at the discretion of the supervising electrician.

Exception No. 2: Fault-current values provided by the serving utility may be used to satisfy the labeling requirements.

110.24(B) Modifications. ...

Exception: Not adopted by the State of Oregon.

110.26(C)(3) Personnel Doors. Where equipment rated 800 amperes or more that contains overcurrent devices, switching devices, or control devices is installed in structures other than one- and two-family dwellings and individual multifamily units and there is a personnel door(s) intended for entrance to and egress from the working space less than 7.6 m (25 ft) from the nearest edge of the working space, the door(s) shall open at least 90 degrees in the direction of egress and be equipped with ~~listed~~ panic hardware or ~~listed~~ fire exit hardware.

Informational Note: Additional construction requirements are located in Section 1010.1.10 of the OSSC. This section governs panic hardware listing and installation requirements. The following OSSC sections are not part of this code but are provided here for the reader's convenience.

OSSC Section 1010.10.1

Installation. Where panic or fire exit hardware is installed, it shall comply with the following:

1. Panic hardware shall be listed in accordance with UL 305.
2. Fire exit hardware shall be listed in accordance with UL 10C and UL 305.
3. The actuating portion of the releasing device shall extend not less than one-half of the door leaf width.
4. The maximum unlatching force shall not exceed 15 pounds (67 N).

OSSC Section 1010.1.10.2

Balanced doors. If balanced doors are used and panic hardware is required, the panic hardware shall be the push-pad type and the pad shall not extend more than one-half the width of the door measured from the latch side.

110.26(D) Illumination. Illumination of 10-foot candles average, measured at the floor, shall be provided for all working spaces about service equipment, switchgear switchboards, switchgear, enclosed panelboards, or motor control centers installed indoors. Control by automatic means shall not be permitted to control all illumination within the working spaces. Additional lighting outlets shall not be required where the work space is illuminated by an adjacent light source or as permitted by 210.70(A)(1), Exception No. 1, for switched receptacles.

110.31(A)(4) Locks. Doors shall be equipped with locks, and doors shall be kept locked, with access allowed only to qualified persons. Personnel doors shall open at least 90 degrees in the direction of egress and be equipped with ~~listed~~ panic hardware or ~~listed~~ fire exit hardware.

Informational Note: See the OESC Section 110.26(C)(3) amendment.

110.33(A)(3) Personnel Doors. Where there is a personnel door(s) intended for entrance to and egress from the working space less than 7.6 m (25 ft) from the nearest edge of the working space, the door(s) shall open at least 90 degrees in the direction of egress and be equipped with ~~listed~~ panic hardware or ~~listed~~ fire exit hardware.

Informational Note: See the OESC Section 110.26(C)(3) amendment.

210.8(A) Dwelling Units. All 125-volt, single-phase, through 250-volt 15- and 20-ampere receptacles installed in the following locations and supplied by single phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel:

Items (1) through (4) remain unchanged.

- (5) Unfinished portions or areas of basements not intended as habitable rooms ~~Basements~~
- (6) Kitchens — where the receptacles are installed to serve the countertop surfaces
- (7) Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking
Not adopted by the State of Oregon

Items (8) through (12) and Exception No. (1) remain unchanged.

NEC Section**Amendment language**

210.8(A)— *Exception No. 2: A receptacle supplying only a permanently installed premises security system shall be permitted to omit ground-fault circuit-interrupter protection if the receptacle is labeled as “not GFCI protected.”*

Exceptions No. (3) and (4) remain unchanged.

Exception No. 5: For the locations in 210.8(A)(2), (5), (6), (8), and (11), GFCI protection shall not be required for a single receptacle serving an appliance or a duplex receptacle serving two appliances if all of the following conditions are met:

- a. The appliance is located within a dedicated space.*
- b. In normal use the appliance is not easily moved or is fastened in place.*
- c. The receptacle is labeled as “not GFCI protected.”*

Receptacle(s) installed under this exception shall not be considered as meeting the requirements of 210.52(C) and (G).

210.8(B) **Other than Dwelling Units.** All 125-volt, ~~single-phase, through 250-volt~~ 15- and 20-ampere receptacles ~~supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, and all receptacles supplied by three-phase branch circuits rated 150 volts or less to ground, 100 amperes or less,~~ installed in the following locations shall be provided with GFCI protection.

Items (1) through (14) and Exceptions (1) through (6) remain unchanged

Exception No. 7: GFCI protection shall not be required for a single receptacle installed in indoor locations serving aquariums and similar open aquatic vessels or containers if the receptacle is labeled as “not GFCI protected.”

Exception No. 8: GFCI protection shall not be required for a single receptacle serving an appliance or a duplex receptacle serving two appliances in laundry areas if all of the following conditions are met:

- a. The appliance is located within a dedicated space.*
 - b. In normal use the appliance is not easily moved or is fastened in place.*
 - c. The receptacle is labeled as “not GFCI protected.”*
-

210.8(C) **Crawl Space Lighting Outlets.** GFCI protection shall be provided for lighting outlets not exceeding 120 volts installed in crawl spaces at or below grade level.

210.8(D) **Specific Appliances.** GFCI protection for specific appliances shall be provided in accordance with 422.5. ~~for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single- or 3-phase:~~

- | | |
|--|---|
| (1) Automotive vacuum machines | (7) Dishwashers |
| (2) Drinking water coolers and bottle fill stations | (8) Electric ranges |
| (3) High pressure spray washing machines | (9) Wall mounted ovens |
| (4) Tire inflation machines | (10) Counter mounted cooking units |
| (5) Vending machines | (11) Clothes dryers |
| (6) Sump pumps | (12) Microwave ovens |
-

210.8(E) **Equipment Requiring Servicing. ...**

Exception: Receptacles installed indoors in dwelling units to meet this requirement shall not be required to be GFCI protected, unless otherwise required in 210.8(A) or 210.8(C).

NEC Section

Amendment language

210.8(F) Outdoor Receptacles- Outlets. ~~For dwellings, a~~ All outdoor general-purpose receptacles outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection.‡

- ~~(1) Garages that have floors located at or below grade level~~
- ~~(2) Accessory buildings~~
- ~~(3) Boathouses~~

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

Informational Note: This requirement does not apply to specific-use receptacles that are regulated by other sections in this code such as 551.71.

210.12(B) Dwelling Units. All 120-volt, single phase, 10-, 15- and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

Items (1) through (13) remain unchanged.

- ~~(14) Similar areas~~ Not adopted by the State of Oregon
- ~~(15) Alcoves~~

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, Type MC or Type AC, meeting the applicable requirements of 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required on branch circuits supplying receptacles located in hallways, kitchens or laundry areas and GFCI protected receptacles installed in dining rooms.

Exception No. 3: AFCI protection shall not be required for optional, dedicated outlets that supply equipment known to cause unwanted tripping of AFCI devices.

Exception No 4: AFCI protection shall not be required for branch circuits that serve an appliance that is not easily moved or that is fastened in place.

210.12(C) Dormitory Units. All 120-volt, single-phase, 10-, 15-, and 20- ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through ~~(7)~~-(6).

Items (1) through (4) remain unchanged.

- ~~(5) Bathrooms~~ Not adopted by the State of Oregon
- ~~(6) Similar rooms~~ Not adopted by the State of Oregon
- ~~(7) Study areas~~

210.12(D) Other occupancies. Not adopted by the State of Oregon.

210.12(E) Branch Circuit Wiring Extensions, Modifications or Replacements. If branch circuit wiring for any of the areas specified in 210.12(B); or (C), ~~or (D is not adopted)~~, is modified, replaced, or extended, the branch circuit shall be protected by one of with the following:

- (1) By any of the means described in 210.12(A)(1) through (A)(6)
- (2) A listed outlet branch-circuit type AFCI located at the first receptacle outlet of the existing branch circuit.

Exception No. 1: Extensions or modifications of existing circuits shall not require the installation of AFCI protection.

Exception No. 2: Replacement or upgrading of a service or panelboard shall not require that existing circuits be protected by AFCI devices.

Exception: AFCI protection shall not be required where the extension of the existing branch circuit conductors is not more than 1.8 m (6 ft) and does not include any additional outlets or devices, other than splicing devices. This measurement shall not include the conductors inside an enclosure, cabinet, or junction box.

NEC Section	Amendment language
210.52(D)	Bathrooms. <u>Unless prohibited in 406.9(C), at least one receptacle outlet shall be installed in bathrooms within 900 mm (3 ft) of the outside edge of each sink. The receptacle outlet shall be located on a wall or partition that is adjacent to the sink or sink countertop, located on the countertop, or installed on the side or face of the sink cabinet. In no case shall the receptacle be located more than 300 mm (12 in.) below the top of the sink or sink countertop. Receptacle outlet assemblies listed for use in countertops shall be permitted to be installed in the countertop.</u>
210.52(E)(3)	Balconies, Decks, and Porches. ... <u>Exception No. 1 to (3): Decks or porches located at grade level with an area of less than 1.9 m² (20 ft²) are not required to have an additional receptacle installed.</u> <u>Exception No. 2 to (3): Decks or porches located above grade level with a depth of 304 mm (1 ft) or less measured from the outside of the wall to the outside of the framing member are not required to have an additional receptacle installed.</u>
210.52(I)	Foyers. <u>Not adopted by the State of Oregon.</u>
210.52(J)	Alcoves. <u>In dwelling units, alcoves shall have at least one receptacle installed. These outlets shall be in addition to the required hallway outlets.</u>
210.63(A)	Heating, Air Conditioning, and Refrigeration Equipment. ... <u>Exception No. 1: A receptacle outlet shall not be required at one- and two-family dwellings for the service of evaporative coolers.</u> <u>Exception No. 2: An additional receptacle outlet shall not be required to be installed when replacing existing HVAC equipment if a receptacle outlet is located on the same level and within 23 m (75 ft).</u>
210.65	Meeting Rooms. <u>Not adopted by the State of Oregon.</u>
215.15	Barriers. <u>Not adopted by the State of Oregon.</u>
210.70	Lighting Outlets Required. Lighting outlets shall be installed where specified in 210.70(A), (B), and (C). The switch or wall-mounted control device shall not rely exclusively on a battery unless a means is provided for automatically energizing the lighting outlets upon battery failure.
215.18	Surge Protection. <u>Not adopted by the State of Oregon.</u>
225.36	Type of Disconnecting Means. ... <u>Exception: In single light pole installations that have the connections to the light pole circuit made in a location accessible only to qualified persons, recognized or certified in-line fuse holders shall be allowed, subject to special permission.</u>
225.41	Emergency Disconnects. <u>Not adopted by the State of Oregon.</u>
225.42	Surge Protection. <u>Not adopted by the State of Oregon.</u>
230.43	Wiring Methods for 1000 Volts, Nominal, or Less. ... <u>Exception: Items (13) and (15) are limited to use on traffic control devices and highway lighting poles.</u>
230.46	Spliced and Tapped Conductors. Service-entrance conductors shall be permitted to be spliced or tapped in accordance with 110.14, 300.5(E), 300.13, and 300.15. Power distribution blocks, pressure connectors, and devices for splices and taps shall be listed. Power distribution blocks installed on service conductors shall be marked "suitable for use on the line side of the service equipment" or equivalent. Pressure connectors and devices for splices and taps installed on service conductors shall be marked "suitable for use on the line side of the service equipment."
230.62(C)	Barriers. ... <u>Exception: This section shall not apply to service equipment with more than one service disconnecting means in an enclosure installed in accordance with OESC 230.71.</u>

NEC Section	Amendment language
230.67	Surge Protection. <u>Not adopted by the State of Oregon.</u>
230.70(A)(1)	<p data-bbox="261 241 618 264">Readily Accessible Location. ...</p> <p data-bbox="261 289 1510 344"><i>Exception: In existing installations where the service panel or meter base is being replaced, the panel and service disconnecting means may remain at the existing location if the following conditions exist:</i></p> <p data-bbox="261 359 1510 413"><i>(1) The existing service conductors are of sufficient ampacity to supply the load or the existing conduit is large enough to accommodate new conductors that are of sufficient size to supply the load.</i></p> <p data-bbox="261 428 1003 451"><i>(2) All requirements of 110.26 and 240.24 are met except as follows:</i></p> <p data-bbox="321 466 1433 520"><i>a. If the installation was made prior to July 1, 1978, the work space requirement in 110.26 for installations of 0-volts to 150-volts to ground is reduced to 762 mm (30 in.).</i></p> <p data-bbox="321 535 1328 558"><i>b. If the installation was made prior to July 1, 1993, the provisions of 240.24(E) do not apply.</i></p> <p data-bbox="321 573 1328 596"><i>c. If the installation was made prior to July 1, 1996, the provisions of 240.24(F) do not apply.</i></p>
230.71	Maximum Number of Disconnects. <u>Each service shall have only one disconnecting means unless the requirements of 230.71(B) are met:</u>
230.71(A)	<p data-bbox="261 728 1510 873">General. <u>The service disconnecting means for each service permitted by 230.2, or for each set of service-entrance conductors permitted by 230.40, Exception No. 1, 3, 4, or 5, shall consist of not more than six switches or sets of circuit breakers, or a combination of not more than six switches and sets of circuit breakers, mounted in a single enclosure, in a group of separate enclosures, or in or on a switchboard or in switchgear. There shall be not more than six sets of disconnects per service grouped in any one location.</u></p> <p data-bbox="261 894 1510 951">For the purpose of this section, disconnecting means installed as part of listed equipment and used solely for the following shall not be considered a service disconnecting means: <i>Items (1) through (4) remain unchanged.</i></p>
230.71(B)	Two to Six Service Disconnecting Means. <u>Not adopted by the State of Oregon.</u>
230.71(C)	<p data-bbox="261 1050 1510 1167">Single-Pole Units. <u>Two or three single-pole switches or breakers, capable of individual operation, shall be permitted on multiwire circuits, one pole for each ungrounded conductor, as one multipole disconnect, provided they are equipped with identified handle ties or a master handle to disconnect all conductors of the service with no more than six operations of the hand.</u></p> <p data-bbox="261 1186 1510 1241"><u>Informational Note: See 408.36, Exception No. 1 and Exception No. 2, for service equipment in certain panelboards, and see 430.95 for service equipment in motor control centers.</u></p>
230.85	Emergency Disconnects. <u>Not adopted by the State of Oregon.</u>
230.95(C)	<p data-bbox="261 1339 1510 1486">Performance Testing. <u>The ground-fault protection system shall be performance tested when first installed on site. This testing shall be conducted by a qualified person(s) <u>having proper training and experience required to perform and evaluate the results of such performance testing, using a test process of primary current injection</u>, in accordance with instructions that shall be provided with the equipment. A written record of this testing shall be made, <u>signed by the person(s) performing this test</u>, and shall be available to the authority having jurisdiction.</u></p>
240.6(D)	<p data-bbox="261 1524 1510 1612">Remotely Accessible Adjustable-Trip Circuit Breakers. <u>A circuit breaker(s) that can be adjusted remotely to modify the adjusting means shall be permitted to have an ampere rating(s) that is equal to the adjusted current setting (long-time pickup setting). Remote access shall be achieved by one of the following methods:</u></p> <p data-bbox="261 1631 1510 1850"> <ol style="list-style-type: none"> <li data-bbox="261 1631 938 1654">(1) Connected directly through a local nonnetworked interface. <li data-bbox="261 1661 1510 1850">(2) Connected through a networked interface complying with one of the following methods: <ol style="list-style-type: none"> <li data-bbox="298 1703 1510 1757">a. The circuit breaker and associated software for adjusting the settings are identified as being evaluated for cybersecurity. <li data-bbox="298 1764 1510 1818">b. A cybersecurity assessment of the network is completed. Documentation of the assessment and certification shall be made available to those authorized to inspect, operate, and maintain the system. <li data-bbox="298 1824 1284 1850">c. <u>The permit holder is not required to demonstrate compliance with 240.6(D)(2)(a) and (b).</u> </p>
240.24(E)	<p data-bbox="261 1887 1510 1969">Not Located in Bathrooms. <u>In dwelling units, dormitory units, and guest rooms or guest suites, overcurrent protective devices, other than supplementary overcurrent protection, shall not be located in bathrooms, showering facilities, or locker rooms with showering facilities.</u></p>

NEC Section**Amendment language**

240.67(C) Performance Testing. The arc energy reduction protection system shall be performance tested ~~primary current injection testing or another approved method~~ when first installed on site. The testing shall be conducted by a ~~qualified~~ person(s) having proper training and experience required to perform and evaluate the results of such performance testing, in accordance with instructions that shall be provided with the equipment.

A written record of this testing shall be made, signed by the person(s) performing this test, and shall be available to the authority having jurisdiction.

240.87(C) Performance Testing. The arc energy reduction protection system shall be performance tested ~~primary current injection testing or another approved method~~ when first installed on site. The testing shall be conducted by a ~~qualified~~ person(s) having proper training and experience required to perform and evaluate the results of such performance testing, in accordance with instructions that shall be provided with the equipment.

A written record of this testing shall be made, signed by the person(s) performing this test, and shall be available to the authority having jurisdiction.

250.24(A)(1) General. ...

Exception: When the electric utility has installed a ground fault protection system ahead of the customer's service equipment, no bonding or electrical connection from the grounding electrode system shall be made to the grounded service conductor on the load side of the utility ground fault sensing device. The neutral or grounded service conductor, however, shall be grounded on the line side of the first ground fault sensor in a manner otherwise required at the customer's service equipment. The grounding electrode conductor shall be run to an equipment grounding bus or terminal at the service equipment as long as the equipment grounding conductor and the grounded neutral conductor are not connected to each other at this point. The on-site ground fault test required by 230.95 shall not be performed prior to the above installation requirements. Warning signs shall be installed.

250.24(C) Main Bonding Jumper. ...

Exception No. 3: When the electric utility has installed a ground fault protection system ahead of the customer's service equipment and if the operation of the ground fault system relies on the absence of the main bonding jumper at the service equipment but includes an otherwise satisfactory main bonding jumper as a part of its sensing device, the main bonding jumper shall not be installed at the service equipment which would otherwise bond the grounded service conductor to the equipment ground. The on-site ground fault test required by 230.95 shall not be performed prior to the above installation requirements. Warning signs shall be installed.

250.52(A)(3) Concrete-Encased Electrode. A concrete-encased electrode shall consist of at least 6.0 m (20 ft) of the following: *(Items (1) and (2) remain unchanged.)*

Metal components shall be encased by at least 50 mm (2 in.) of concrete and shall be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components or members that are in direct contact with the earth. If multiple concrete-encased electrodes are present at a building or structure, it shall be permissible to bond only one into the grounding electrode system. Where an addition to a building or structure is remote from the service and the integrity of the grounding electrode system has been verified, connection of the remote concrete encased electrode is not required.

250.52(B) Not Permitted for Use as Grounding Electrodes. The following systems and materials shall not be used as grounding electrodes: *(Items (1) and (3) remain unchanged.)*

(4) In existing electrical installations, when a service change or upgrade occurs, an existing metal underground water pipe shall not be used unless the metal underground water pipe has been verified as suitable for continued use as a grounding electrode. An existing metal underground water pipe shall be bonded to the new grounding electrode system as required by 250.104(A).

Informational Note: See Chapter 6 of the Oregon Plumbing Specialty Code.

250.53(A)(2) Supplemental Electrode Required. ...

Exception No. 1: If a single rod, pipe, or plate grounding electrode has a resistance to earth of 25 ohms or less, the supplemental electrode shall not be required.

Exception No. 2: A supplemental electrode shall not be required for a single-phase, 200 amps or less temporary service.

NEC Section	Amendment language
250.94(A)	<p>The Intersystem Bonding Termination Devices. An intersystem bonding termination (IBT) <u>or an exposed and supported length of #6 bare copper conductor</u> for connecting intersystem bonding conductors shall be provided external to enclosures at the service equipment or metering equipment enclosure and at the disconnecting means for any buildings or structures that are supplied by a feeder or branch circuit. If an IBT is used it shall comply with the following:...</p>
250.118(A)	<p>Permitted. ...</p> <p>(14) Surface metal raceways listed for grounding. <u>Where metallic conduit is installed on roof tops, an equipment grounding conductor shall be provided within the raceway and sized per 250.122.</u></p>
300.5(G)	<p>Raceway Seals. Conduits or raceways through which moisture might contact live parts shall be sealed or plugged at either or both ends. Spare or unused raceways shall also be sealed. Sealants shall be identified for use with the cable insulation, conductor insulation, bare conductor, shield, or other components.</p>
300.9	<p>Raceways in Wet Locations Above Grade. ...</p> <p><i>Exception: The interior of raceways up to 2.5m (8 ft) in length installed solely to provide physical protection shall not be considered a wet location.</i></p>
314.27(C)	<p>Boxes at Ceiling-Suspended (Paddle) Fan Outlets. Outlet boxes or outlet box systems used as the sole support of a ceiling-suspended (paddle) fan shall be listed, shall be marked by their manufacturer on the interior of the box as suitable for this purpose, and shall not support ceiling-suspended (paddle) fans that weigh more than 32 kg (70 lb). For outlet boxes or outlet box systems designed to support ceiling-suspended (paddle) fans that weigh more than 16 kg (35 lb), the required marking shall include the maximum weight to be supported.</p> <p>Outlet boxes mounted in the ceilings of habitable rooms of dwelling occupancies in a location acceptable for the installation of a ceiling-suspended (paddle) fan shall comply with one of the following:</p> <p>(1) listed for the sole support of ceiling-suspended (paddle) fans.</p> <p>(2) Installed so as to allow direct access through the box to structural framing capable of supporting a ceiling-suspended (paddle) fan without removing the box</p> <p><u>Where spare, separately switched, ungrounded conductors are provided to a ceiling-mounted outlet box, intended for the installation of a ceiling-suspended (paddle) fan in one-family, two-family, or multifamily dwellings, the outlet box or outlet box system shall be listed for the sole support of ceiling-suspended (paddle) fans.</u></p>
315.40	<p>Support. Type MV cable terminated in equipment or installed in pull boxes or vaults shall be secured and supported by metallic or nonmetallic supports suitable to withstand the weight by cable ties listed and identified for securement and support, or other approved means, at intervals not exceeding 1.5 m (5 ft) from terminations or a maximum of 1.8 m (6 ft) between supports.</p>
320.30(A)	<p>General. Type AC cable shall be supported and secured by staples; cable ties listed and identified for securement and support; straps, hangers, or similar fittings; or other approved means designed and installed so as not to damage the cable. Type AC cable fittings shall be permitted as a means of cable support.</p>
330.30(A)	<p>General. Type MC cable shall be supported and secured by staples; cable ties listed and identified for securement and support; straps, hangers, or similar fittings; or other approved means designed and installed so as not to damage the cable. Type AC cable fittings shall be permitted as a means of cable support.</p>
334.12(A)	<p>Types NM and NMC. ...</p> <p>(2) Exposed within a dropped or suspended ceiling cavity in other than one- and two-family and multifamily dwellings.</p> <p><i>Exception to (2): Types NM and NMC cables may be installed within a dropped or suspended ceiling cavity in structures other than one- and two-family and multifamily dwellings when installed in accordance with 334.15.</i></p>

NEC Section

Amendment language

- 334.15(B) Protection from Physical Damage.** Cable shall be protected from physical damage where necessary by rigid metal conduit, intermediate metal conduit, electrical metallic tubing, Schedule 80 PVC conduit, RTRC marked with the suffix -XW, or other approved means. Where passing through a floor, the cable shall be enclosed in rigid metal conduit, intermediate metal conduit, electrical metallic tubing, Schedule 80 PVC conduit, RTRC marked with the suffix -XW, or other approved means extending at least 150 mm (6 in.) above the floor. Conduit or tubing shall be provided with a bushing or adapter that provides protection from abrasion at the point the cable enters and exits the raceway.
- Type NMC cable installed in the shallow chases or grooves in masonry, concrete, or adobe, shall be protected in accordance with the requirements in 300.4(F) and covered with plaster, adobe, or similar finish.
- Exposed nonmetallic sheathed cable shall be protected where it is installed horizontally less than 2.5 m (8 ft) above the floor. Exposed nonmetallic sheathed cable less than 2.5 m (8 ft) above the floor that enters the top or bottom of a panelboard shall be protected from physical damage by conduit, raceway, 1/2-inch plywood, 1/2-inch drywall, or other approved means.
-
- 334.15(C) In Unfinished Basements and Crawl Spaces.** Where cable is run at angles with joists in unfinished basements ~~and crawl spaces~~, it shall be permissible to secure cables not smaller than two 6 AWG or three 8 AWG conductors directly to the lower edge of the joists. Smaller cables shall be run either through bored holes in joists or on running boards. Nonmetallic-sheathed cable installed on the wall of an unfinished basement shall be permitted to be installed in a listed conduit or tubing or shall be protected in accordance with 300.4. ...
-
- 334.24 Bending Radius.** Bends in Types NM and NMC cable shall be so made that the cable will not be damaged. The radius of the curve of the inner edge of any bend during or after installation shall not be less than five times the diameter of the cable. ~~For flat cables, the major diameter dimension of the cable shall be used to determine the bending radius.~~
-
- 334.30 Securing and Supporting.** Nonmetallic-sheathed cable shall be supported and secured by staples; cable ties ~~listed and identified for securement and support~~; or straps, hangers, or similar fittings designed and installed so as not to damage the cable, at intervals not exceeding 1.4 m (4 1/2 ft) and within 300 mm (12 in.) of every cable entry into enclosures such as outlet boxes, junction boxes, cabinets, or fittings. Flat cables shall not be stapled on edge.
-
- 336.10 Uses Permitted. ...**
- (9) ~~For one and two family dwelling units,~~ Type TC-ER-JP cable containing conductors for both power and control circuits shall be permitted for branch circuits and feeders. Type TC-ER-JP cable used as interior wiring shall be installed per the requirements of Part II of Article 334 and where installed as exterior wiring shall be installed per the requirements of Part II of Article 340. ...
-
- 337.30 Securing and Supporting.** Type P cable shall be supported and secured by cable ties, ~~listed and identified for securement and support~~; straps, hangers, or similar fittings; or other approved means designed and installed so as not to damage the cable.
-
- 338.24 Bending Radius.** Bends in Types USE and SE cable shall be so made that the cable will not be damaged. The radius of the curve of the inner edge of any bend, during or after installation, shall not be less than five times the diameter of the cable. ~~For flat cables, the major diameter dimension of the cable shall be used to determine the bending radius.~~
-
- 340.24 Bending Radius.** Bends in Types USE and SE cable shall be so made that the cable will not be damaged. The radius of the curve of the inner edge of any bend, during or after installation, shall not be less than five times the diameter of the cable. ~~For flat cables, the major diameter dimension of the cable shall be used to determine the bending radius.~~
-
- 348.30(A) Securely Fastened.** FMC shall be securely fastened in place by an approved means within 300 mm (12 in.) of each box, cabinet, conduit body, or other conduit termination and shall be supported and secured at intervals not to exceed 1.4 m (4 1/2 ft). ~~Where used, cable ties shall be listed and be identified for securement and support.~~
-
- 350.30(A) Securely Fastened.** LFMC shall be securely fastened in place by an approved means within 300 mm (12 in.) of each box, cabinet, conduit body, or other conduit termination and shall be supported and secured at intervals not to exceed 1.4 m (4 1/2 ft). ~~Where used, cable ties shall be listed and be identified for securement and support.~~

356.30 Securing and Supporting.

- (1) Where installed in lengths exceeding 1.8 m (6 ft), the conduit shall be securely fastened at intervals not exceeding 900 mm (3 ft) and within 300 mm (12 in.) on each side of every outlet box, junction box, cabinet, or fitting. ~~Where used, cable ties shall be listed as suitable for the application and for securing and supporting.~~

362.10 Uses Permitted. ...

- (2) In any building exceeding three floors above grade concealed within combustible or noncombustible walls, floors, and ceilings where the walls, floors, and ceilings provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.

Exception to (2): Where ~~an approved automatic~~ a fire sprinkler protective system(s) is installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, on all floors, ENT shall be permitted to be used within walls, floors, and ceilings, exposed or concealed, in buildings exceeding three floors above grade.

- 362.10** (5) Above suspended ceilings where the suspended ceilings provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies, except as permitted in 362.10(1)a.

Exception to (5): ENT shall be permitted to be used above suspended ceilings in buildings exceeding three floors above grade where the building is protected throughout by ~~an approved automatic~~ a fire sprinkler protective system(s) in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

- 362.30(A) Securely Fastened.** ENT shall be securely fastened at intervals not exceeding 900 mm (3 ft). In addition, ENT shall be securely fastened in place within 900 mm (3 ft) of each outlet box, device box, junction box, cabinet, or fitting where it terminates. ~~Where used, cable ties shall be listed as suitable for the application and for securing and supporting.~~

- 392.30(B) Cables and Conductors.** Cables and conductors shall be secured to and supported by the cable tray system in accordance with (1), (2), ~~and (3), and (4)~~ as applicable: ...

- ~~(4) Cable ties shall be listed and identified for the application and for securement and support.~~

- 393.14(A) General Requirements.** Support wiring shall be installed in a neat and workmanlike manner. Cables and conductors installed exposed on the surface of ceilings and sidewalls shall be supported by the building structure in such a manner that the cable is not damaged by normal building use. Such cables shall be supported by straps, staples, hangers, cable ties ~~listed and identified for securement and support~~, or similar fittings designed and installed so as not to damage the cable.

394.12 Uses Not Permitted. ...

- (5) Hollow spaces of walls, ceilings, and attics where such spaces are insulated by loose, rolled, or foamed-in-place insulating material that envelops the conductors

Exception: The provisions of 394.12 shall not be construed to prohibit the installation of loose or rolled thermal insulating materials in spaces containing existing knob-and-tube wiring, provided all the following conditions are met:

- (1) The visible wiring shall be inspected by a certified electrical inspector or a general supervising electrician employed by a licensed electrical contractor.*
- (2) All defects found during the inspection shall be repaired prior to the installation of insulation.*
- (3) Repairs, alterations or extensions of or to the electrical systems shall be inspected by a certified electrical inspector.*
- (4) The insulation shall have a flame spread rating not to exceed 25 and a smoke density not to exceed 450 when tested in accordance with ASTM E84-91A. Foamed in place insulation shall not be used with knob-and-tube wiring.*
- (5) Exposed splices or connections shall be protected from insulation by installing flame resistant, non-conducting, open top enclosures which provide three inches, but not more than four inches side clearances, and a vertical clearance of at least four inches above the final level of the insulation.*
- (6) All knob-and-tube circuits shall have overcurrent protection in compliance with the 60-degree C column of Table 310.16. Overcurrent protection shall be either circuit breakers or type S fuses. The type S fuse adapters shall not accept a fuse of an ampacity greater than permitted in 240.53.*

NEC Section	Amendment language
400.10(A)	<p>Uses. ...</p> <p>(12) <u>Listed assemblies of fixtures and controllers, approved by the Federal Aviation Administration.</u></p>
400.12	<p>Uses not permitted.</p> <p>(5) Where concealed by walls, floors, or ceilings or located above suspended or dropped ceilings</p> <p><i>Exception No. 1 to (5): Flexible cord and flexible cables, and power supply cords shall be permitted if contained within an enclosure for use in other spaces used for environmental air as permitted by 300.22(C)(3).</i></p> <p><i>Exception No. 2 to (5): In other than spaces used for environmental air, cord sets and power-supply cords shall be permitted above accessible suspended or dropped ceilings if part of a listed assembly, other than a luminaire, and the cord length does not exceed 1.8 m (6 ft).</i></p>
406.4(D)(4)	<p>(4) Arc-Fault Circuit Interrupter Protection. <u>Not adopted by the State of Oregon.</u></p>
406.9(A)	<p>Damp Locations. A receptacle installed outdoors in a location protected from the weather or in other damp locations shall have an enclosure for the receptacle that is weatherproof when the receptacle is covered (attachment plug cap not inserted and receptacle covers closed).</p> <p>An installation suitable for wet locations shall also be considered suitable for damp locations.</p> <p>A receptacle shall be considered to be in a location protected from the weather where located under roofed open porches, canopies, marquees, and the like, and will not be subjected to a beating rain or water runoff. All 15- and 20-ampere, 125-volt and 250-volt nonlocking receptacles shall be a listed weather-resistant type. Hinged covers of outlet box hoods shall be able to open at least 90 degrees, or fully open if the cover is not designed to open 90 degrees from the closed to open position, after installation.</p>
406.9(B)(1)	<p>Receptacles of 15 Amperes and 20 Amperes in a Wet Location. Receptacles of 15 amperes and 20 amperes, 125 volts and 250 volts installed in a wet location shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted. An outlet box hood installed for this purpose shall be listed and shall be identified as extra-duty. Other listed products, enclosures, or assemblies providing weatherproof protection that do not utilize an outlet box hood need not be identified extra duty. Hinged covers of outlet box hoods shall be able to open at least 90 degrees, or fully open if the cover is not designed to open 90 degrees from the closed to open position, after installation.</p> <p><i>Exception: 15- and 20-ampere, 125- through 250-volt receptacles installed in a wet location and subject to routine high-pressure spray washing shall be permitted to have an enclosure that is weatherproof when the attachment plug is removed.</i></p> <p>All 15- and 20-ampere, 125- and 250- volt nonlocking-type receptacles shall be listed and so identified as the weather-resistant type.</p>
406.9(C)	<p>Bathtub and Shower Space. ...</p> <p><i>Exception No. 2: In bathrooms with less than the required zone, the receptacle(s) required by 210.52(D) shall be permitted to be installed <u>outside of the room as near as practicable to the strike side of the door opposite the bathtub rim or shower stall threshold on the farthest wall within the room.</u></i></p>
408.2	<p>Reconditioned Equipment. The use of reconditioned equipment within the scope of this article shall be limited as described in 408.2(A) and (B). If equipment has been damaged by fire, products of combustion, corrosive influences, or water, it shall be specifically evaluated by its manufacturer, or a qualified testing laboratory, <u>or the signing supervisor</u> prior to being returned to service.</p>
408.9(B)	<p>Panelboards Not Listed for the Specific Enclosure. If the available fault current is greater than 10,000 amperes, the completed work shall be field labeled. If the available fault current is 10,000 amperes or less, the replacement panelboard shall be identified for the application. Any previously applied listing marks on the cabinet that pertain to the panelboard shall be removed.</p>

408.36 Overcurrent Protection. ...

Exception No. 1: Individual protection shall not be required for a panelboard used as service equipment with multiple disconnecting means in accordance with 230.71. In panelboards protected by three or more main circuit breakers or sets of fuses, the circuit breakers or sets of fuses shall not supply a second bus structure within the same panelboard assembly.

Exception No. 2: Individual protection shall not be required for a panelboard protected on its supply side by two main circuit breakers or two sets of fuses ~~in other than service equipment~~, having a combined rating not greater than that of the panelboard. A panelboard constructed or wired under this exception shall not contain more than 42 overcurrent devices. For the purposes of determining the maximum of 42 overcurrent devices, a 2-pole or a 3-pole circuit breaker shall be considered as two or three overcurrent devices, respectively.

Exception No. 3: For existing panelboards, individual protection shall not be required for a panelboard used as service equipment for an individual residential occupancy.

408.38 Enclosure. Panelboards shall be mounted in cabinets, cutout boxes, or identified enclosures and shall be dead-front. ~~Where the available fault current is greater than 10,000 amperes, the panelboard and enclosure combination shall be evaluated for the application.~~

410.2 Reconditioned Equipment. Reconditioned luminaires, lampholders, ballasts, LED drivers, lamps, and retrofit kits shall not be permitted. If a retrofit kit is installed in a luminaire in accordance with the installation instructions, the retrofitted luminaire shall not be considered reconditioned. Service and maintenance of luminaires shall not be considered reconditioning.

422.5(A) General. Appliances identified in 422.5(A)(1) through (A)(7) 150 volts or less to ground and 60 amperes or less, single- or 3-phase, shall be provided with Class A protection for personnel. Multiple Class A protective devices shall be permitted but shall not be required. *(Items (1) through (5) remain unchanged.)*

(6) Sump pumps and sewage pumps

Exception to (6): Receptacle ground-fault protection shall not be required for a single receptacle if the receptacle is labeled as "not GFCI protected."

(7) ~~Dishwashers~~ Not adopted by the State of Oregon.

445.6 Listing. Not adopted by the State of Oregon.

445.19(C) Emergency Shutdown in One- and Two-Family Dwelling units. For other than cord-and-plug-connected portable generators, an emergency shutdown device shall be located outside the dwelling unit at an readily accessible location and shall also meet the requirements of 445.19(A)(1) and (A)(2).

~~An emergency shutdown device mounted on the exterior of the generator enclosure shall be permitted to satisfy the requirements of this section. The shutdown device shall be marked as the Generator Emergency Shutdown, and the label shall meet the requirements of 110.21(B).~~

450.43(C) Locks. Doors shall be equipped with locks, and doors shall be kept locked, with access being allowed only to qualified persons. Personnel doors be capable of opening not less than 90 degrees in the direction of egress and be equipped with ~~listed~~ fire exit hardware.

Informational Note: See the OESC Section 110.26(C)(3) amendment.

480.10(E) Egress. Personnel doors intended for entrance to, and egress from, rooms designated as battery rooms shall open at least 90 degrees in the direction of egress and shall be equipped with ~~listed~~ panic or ~~listed~~ fire exit hardware.

Informational Note: See the OESC Section 110.26(C)(3) amendment.

495.49 Reconditioned Switchgear. Reconditioned switchgear, or sections of switchgear, shall be permitted. If equipment has been damaged by fire, products of combustion, or water, it shall be specifically evaluated by its manufacturer, ~~or~~ a qualified testing laboratory, or the signing supervisor prior to being returned to service.

NEC Section	Amendment language
500.8(A)	<p>Suitability. “Suitability of identified equipment” shall be determined in accordance with ORS 479.760, by one of the following:</p> <ul style="list-style-type: none"> (1) Equipment listing or labeling (2) Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation (3) Evidence acceptable to the authority having jurisdiction such as a manufacturer’s self evaluation or an owner’s engineering judgment <p>Informational Note: Additional documentation for equipment might include certificates demonstrating compliance with applicable equipment standards, indicating special conditions of use, and providing other pertinent information.</p>
517.10(B)	<p>Not Covered. Part II shall not apply to the following: <i>(Items (1) and (2) remain unchanged.)</i></p> <ul style="list-style-type: none"> (3) Areas used exclusively for any of the following purposes: <ul style="list-style-type: none"> a. Intramuscular injections (immunizations) b. Psychiatry and psychotherapy c. Alternative medicine <i>(i.e. acupuncture, chiropractic therapy, etc.)</i> d. Optometry e. Pharmacy services not contiguous to health care facilities <u>f. Massage therapy</u> <u>g. Physical therapy</u> <u>h. Audiology</u>
517.13(A)	<p>Wiring Methods. . . .</p> <p><i>Exception: Type PVC conduit may be installed underground or embedded in concrete in Dental Clinics located in type B occupancies, provided that a wire type equipment grounding conductor is installed to meet the requirements of 250.118 and a separate insulated equipment grounding conductor is installed to meet the requirements of 517.13(B).</i></p>
517.17(D)	<p>Testing. When equipment ground-fault protection of equipment is first installed, each level shall be performance tested to ensure compliance with 517.17(C). This testing shall be conducted by a qualified person(s) <u>having proper training and experience required to perform and evaluate the results of such performance testing,</u> using a test process in accordance with the instruction provided with the equipment. A written record of this testing shall be made, <u>signed by the person(s) performing this test,</u> and shall be available to the authority having jurisdiction.</p>
518.6	<p>Illumination. <u>Not adopted by the State of Oregon.</u></p>
547.28	<p>Ground-Fault Circuit-Interrupter Protection. Ground-fault circuit-interrupter protection (GFCI) shall be provided as required in 210.8(B) for areas of agricultural buildings not included in the scope of this article. GFCI protection shall not be required for other than 125-volt, 15- and 20-ampere receptacles installed in the following areas:</p> <ul style="list-style-type: none"> (1) Areas requiring an equipotential plane (2) Outdoors (3) Damp or wet locations (4) Dirt confinement areas for livestock <p><u>GFCI protection shall not be required for a single receptacle supplying a dedicated load and marked “not GFCI protected.” A GFCI protected receptacle shall be located within 900 mm (3 ft) of the non-GFCI protected receptacle.</u></p>

NEC Section	Amendment language
547.44(A)	<p>Where Required. Equipotential planes shall be required in the following areas:</p> <p>(1) Indoors. Equipotential planes shall be installed in confinement areas <u>designated by the owner with concrete floors where metallic equipment is located that may become energized and is accessible to livestock.</u></p> <p>(2) Outdoors. Equipotential planes shall be installed in concrete slabs where metallic equipment is located that may become energized and is accessible to livestock.</p> <p>The equipotential plane shall encompass the area where the livestock stands while accessing metallic equipment that may become energized.</p> <p><i>Exception to (A)(1) and (A)(2): Where the electrical system is designed by a professional engineer, as defined in ORS 672.002(2), and the electrical equipment is isolated and not accessible to livestock, and non-electrical metallic equipment is not likely to become energized an equipotential plane shall not be required.</i></p> <p><u>Informational Note: See the definition of <i>Equipment</i> in Article 100.</u></p>
551.71(B)	<p>30-Ampere. A minimum of 70 percent of all recreational vehicle sites with electrical supply shall each be equipped with a 30-ampere, 125-volt weather-resistant receptacle conforming to Figure 551.46(C)(1). This supply shall be permitted to include additional receptacle configurations conforming to 551.81. The remainder of all recreational vehicle sites with electrical supply shall be equipped with one or more of the receptacle configurations conforming to 551.81.</p>
551.7(C)	<p>50-Ampere. A minimum of 20 percent of existing and 40 percent of all new recreational vehicle sites with electrical supply, shall each be equipped with a 50-ampere, 125/250-volt weather-resistant receptacle conforming to the configuration as identified in Figure 551.46(C)(1). Every recreational vehicle site equipped with a 50-ampere receptacle shall also be equipped with a 30-ampere, 125-volt receptacle conforming to Figure 551.46(C)(1). These electrical supplies shall be permitted to include additional receptacles that have configurations in accordance with 551.81. The weather-resistant requirement for 50 ampere, 125/250 volt receptacles shall become effective January 1, 2026.</p>
551.77	<p>Recreational Vehicle Site Supply Equipment. Recreational vehicle site supply equipment shall be listed for use as recreational vehicle site supply equipment and shall comply with 551.77(A) through (F).</p>
555.15	<p>Replacement of Equipment. <u>Not adopted by the State of Oregon.</u></p>
555.35(A)	<p>Feeder. ...</p> <p><i>Exception No. 1: Transformer secondary conductors of a separately derived system that do not exceed 3 m (10 ft) and are installed in a raceway shall be permitted to be installed without ground-fault protection. This exception shall also apply to the supply terminals of the equipment supplied by the transformer secondary conductors.</i></p> <p><i>Exception No. 2: Modifications to existing systems shall not require GFPE.</i></p>
555.36(C)	<p>Emergency Electrical Disconnect. Each marina power outlet or enclosure that provides shore power to boats shall be provided with a listed emergency shutoff device or electrical disconnect that is clearly marked “Emergency Shutoff” in accordance with 110.22(A). The emergency shutoff device or electrical disconnect shall be within sight of the marina power outlet or other enclosure that provides shore power to boats, readily accessible, externally operable, manually resettable, and listed for use in wet locations. The emergency shutoff device or electrical disconnect shall de-energize the power supply to all circuits supplied by the marina power outlet(s) or enclosure(s) that provide shore power to boats. A circuit breaker handle shall not be used for this purpose.</p>
590.8(A)	<p>Where reused, Overcurrent Protective Devices. Overcurrent protective devices that have been previously used and are installed in a temporary installation shall be examined to ensure they have been properly installed and properly maintained, and there is <u>with</u> no evidence of impending failure.</p>
590.8(B)	<p>Service Overcurrent Protective Devices. <u>Not adopted by the State of Oregon.</u></p>
600.33(B)	<p>Installation. Secondary wiring shall be installed in accordance with 600.33(B)(1) and (B)(2).</p> <p>(1) Wiring shall be installed and supported in a neat and workmanlike manner. Cables and conductors installed exposed on the surface of ceilings and sidewalls shall be supported by the building structure in such a manner that the cable is not damaged by normal building use. The cable shall be supported and secured at intervals not exceeding 1.8 m (6 ft). Such cables shall be supported by straps, staples, hangers, cable ties, or similar fittings designed and installed so as not to damage the cable. The installation shall also comply with 300.4(D).</p>

NEC Section	Amendment language
620.1	<p>Scope. ...</p> <p>Informational Note No. 1: For further information, see ASME A17.1 2010/CSA B44 10, Safety code for Elevators and Escalators <u>the Oregon Elevator Specialty Code as adopted in OAR chapter 918, division 400.</u></p>
620.5	<p>Working Clearances. Working space shall be provided about controllers, disconnecting means, and other electrical equipment in accordance with 110.26(A).</p> <p>Where conditions of maintenance and supervision ensure that only qualified persons examine, adjust, service, and maintain the equipment, the clearance requirements of 110.26(A) shall not be required where any of the conditions in 620.5(A) through (D) are met. <u>Where machine room doors swing inward, the arc of the door shall not encroach on those clearances required by 110.26(A).</u></p>
620.6(C)	<p>Sump Pumps. A permanently installed sump pump shall be permanently wired or shall be supplied by a receptacle that is ground fault circuit interrupter protected.</p> <p><u>A single receptacle supplying a permanently installed sump pump shall not require ground-fault circuit-interrupter protection.</u></p>
620.11(A)	<p>Hoistway Door Interlock Wiring. ...</p> <p><i>Exception: Where not required by the Oregon Elevator Specialty Code (ASME A17.1).</i></p>
620.37(A)	<p>Uses Permitted. Electrical wiring, raceways, and cables used directly in connection with the elevator or dumbwaiter shall be permitted inside the hoistway, machine rooms, control rooms, machinery spaces, and control spaces, including wiring for the following:</p> <p><i>(Items (1) through (7) remain unchanged.)</i></p> <p><u>Conduits and raceways necessary for the connection of such devices shall only enter hoistways and machine rooms to the extent necessary to connect the device(s) attached thereto.</u></p>
620.51(B)	<p>Operation. No provision shall be made to open or close this disconnecting means from any other part of the premises. If sprinklers are installed in hoistways, machine rooms, control rooms, machinery spaces, or control spaces, the disconnecting means shall be permitted to automatically open the power supply to the affected elevator(s) prior to the application of water. No provision shall be made to automatically close this disconnecting means. Power shall only be restored by manual means.</p> <p><u>Where provided, this disconnecting means shall be located in the elevator control room or control space. The installation shall comply with the requirements of NFPA 72 as adopted in OAR 918-306-0005.</u></p>
620.51(C)	<p>Location. The disconnecting means shall be located where it is readily accessible to qualified persons. <u>Where machine rooms are provided, the disconnecting means required by 620.51 shall be located within 610 mm (24 inches) of the open side of the machine room access door. Where more than one disconnect is required for a multi-car group, the disconnects shall be adjacent to each other with the first disconnect located within 610 mm (24 inches) of the open side of the machine room access door. Measurement shall be taken from the edge of the disconnect nearest the machine room door.</u></p>
620.51(C)(4)	<p>On Platform Lifts and Stairway Chairlifts. On platform lifts and stairway chairlifts, the disconnecting means shall be located within sight of the motor controller <u>or lift and within 1.83 m (six feet) of the motor controller. The disconnecting means shall not be located in the runway enclosure.</u></p>
620.51(C)(5)	<p>Residential installations. <u>A disconnecting means shall be required to be placed within sight of the controller or lift. Where such devices are supplied with flexible cord and plug type connectors, the supply receptacle shall be switched by the disconnecting means. The disconnecting means does not require overcurrent protection, provided such protection is supplied by the branch circuit overcurrent device. In all other respects the disconnecting means shall comply with the requirements of this section.</u></p>
620.86	<p>Flexible Metal Conduit. <u>Where flexible metal conduit is utilized between the disconnecting means specified in 620.51 and the elevator controller, an equipment grounding conductor shall be provided within the raceway and sized per 250.122 and Table 250.122.</u></p>

NEC Section	Amendment language
625.42	<p>Rating. ...</p> <p><u>Informational Note: See Statewide Alternate Method 09-01 for the use of a demand factor table for calculating electrical vehicle charging equipment services and feeders.</u></p>
625.54	<p>Ground-Fault Circuit-Interrupter Protection for Personnel. <u>Not adopted by the State of Oregon</u></p>
630.8	<p>Ground-Fault Circuit-Interrupter Protection for Personnel. <u>Not adopted by the State of Oregon</u></p>
646.19	<p>Entrance to and Egress from Working Space. For equipment over 1.8 m (6 ft) wide or deep, there shall be one entrance to and egress from the required working space not less than 610 mm (24 in.) wide and 2.0 m (6 ½ ft) high at each end of the working space. Doors shall open to the full extent of their designed egress opening and be equipped with listed panic hardware or listed fire exit hardware. A single entrance to and egress from the required working space shall be permitted where either of the conditions in 646.19(A) or (B) is met.</p>
670.6	<p>Overvoltage Protection. <u>Not adopted by the State of Oregon.</u></p>
680.4	<p>Inspections after Installation. <u>Not adopted by the State of Oregon.</u></p>
680.21(D)	<p>Pool Pump Motor Replacement. <u>Not adopted by the State of Oregon.</u></p>
680.42(B)	<p>Bonding. ...</p> <p>(4) The top rim of the spa or hot tub shall be at least 710 mm (28 in.) above all perimeter surfaces that are within 760 mm (30 in.), measured horizontally from the spa or hot tub. The height of nonconductive external steps <u>or deck</u> for exit and entry to or exit from the self-contained spa shall not be used to reduce or increase this rim height measurement.</p>
682.15(B)	<p>Feeder and Branch Circuits on Piers. Feeder and branch-circuit conductors that are installed on piers shall be provided with ground-fault protection not exceeding <u>100</u> 30 mA. Coordination with downstream ground-fault protection shall be permitted at the feeder overcurrent protective device.</p>
690.12	<p>Rapid Shutdown of PV Systems on Buildings. PV system circuits installed on or in buildings shall include a rapid shutdown function to reduce shock hazard for firefighters in accordance with 690.12(A) through (D). <u>Where an addition to an existing system(s) on or in a building is installed, a rapid shutdown function shall be provided for the existing system(s) on or in the building. The provisions of 690.12(B)(2) shall not apply to the existing system(s).</u></p>
690.31(C)(1)	<p>(1) Single-Conductor Cable.</p> <p>(b) Exposed cables sized 8 AWG or smaller shall be supported and secured at intervals not to exceed 600 mm (24 in.) by cable ties; <u>or</u> straps, hangers, or similar fittings listed and identified for securement and support in outdoor locations. PV wire or cable shall be permitted in all locations where RHW-2 is permitted.</p> <p>(c) Exposed cables sized larger than 8 AWG shall be supported and secured at intervals not to exceed 1400 mm (54 in.) by cable ties; <u>or</u> straps, hangers, or similar fittings listed and identified for securement and support in outdoor locations.</p>
690.47(B)	<p>Grounding Electrodes and Grounding Electrode Conductors. Additional grounding electrodes shall be permitted to be installed in accordance with 250.52 and 250.54. Grounding shall be permitted to be connected directly to the PV module frame(s) or support structure. A grounding electrode conductor shall be sized according to 250.66, <u>and shall not be smaller than 6 AWG copper or 4 AWG aluminum.</u> A support structure for a ground-mounted PV array shall be permitted to be considered a grounding electrode if it meets the requirements of 250.52. PV arrays mounted to buildings shall be permitted to use the metal structural frame of the building if the requirements of 250.68(C)(2) are met.</p>
700	<p>Emergency Systems. ...</p> <p><u>Building officials and inspectors administering and enforcing the state building code under ORS 455.148 and 455.150, shall ensure compliance with Sections 700.32, 701.27, or 708.54 by verifying receipt of a certificate signed by the Engineer of Record or the Signing Supervisor stating that the proposed installation complies with the selective coordination requirements of this code.</u></p>

-
- 700.3(F) Temporary Source of Power for Maintenance or Repair of the Alternate Source of Power.** If the building owner deems it necessary and the emergency system relies on a single alternate source of power, which will be disabled for maintenance or repair, the emergency system shall include permanent switching means to connect a portable or temporary alternate source of power that shall be available for the duration of the maintenance or repair. The permanent switching means to connect a portable or temporary alternate source of power shall comply with the following: ...
-
- 700.5(D) Redundant Transfer Equipment.** If the building owner deems it necessary and emergency loads are supplied by a single feeder, the emergency power system shall include redundant transfer equipment or a bypass isolation transfer switch to facilitate maintenance as required in 700.3(C) without jeopardizing continuity of power. If the redundant transfer equipment or bypass isolation transfer switch is manual (or nonautomatic), then it shall be actively supervised by a qualified person when the primary (automatic) transfer equipment is disabled for maintenance or repair.
-
- 700.32(A) General.** Emergency system(s) overcurrent protective devices (OCPDs) shall be selectively coordinated with all supply-side and load-side OCPDs.
- Selective coordination shall be selected by a licensed professional engineer or other qualified persons engaged primarily in the design, installation, or maintenance of electrical systems. The selection shall be documented and made available to those authorized to design, install, inspect, maintain, and operate the system.
- For the purposes of this section, supply side overcurrent protection means those OCPDs on the emergency system supply side and not on the normal power supply side. The protection shall be selectively coordinated using the higher of the normal power supply fault current levels or emergency system fault current levels. OCPDs shall be selectively coordinated for .01 seconds and greater.
-
- 700.32(C) Modifications. ...**
- Exception No. 1: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.*
- Exception No. 2: The requirements for selective coordination shall meet the coordination requirements in effect at the time of the original installation when the installation is being altered, maintained or repaired. The ground fault sensing function of overcurrent devices will only be required to selectively coordinate with the ground fault sensing functions of other protective devices.*
-
- 701.32(A) General.** Legally required standby system(s) overcurrent protective devices (OCPDs) shall be selectively coordinated with all supply side OCPDs.
- Selective coordination shall be selected by a licensed professional engineer or other qualified persons engaged primarily in the design, installation, or maintenance of electrical systems. The selection shall be documented and made available to those authorized to design, install, inspect, maintain, and operate the system.
- For the purposes of this section, supply side overcurrent protection means those protective devices on the emergency system supply side and not on the normal power supply side. The protection shall be selectively coordinated using the higher of the normal power supply fault current levels or emergency system fault current levels. Overcurrent devices shall be selectively coordinated for .01 seconds and greater.
-
- 701.32(C) Modifications. ...**
- Exception No. 1: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.*
- Exception No. 2: The requirements for selective coordination shall meet the coordination requirements in effect at the time of the original installation when the installation is being maintained, altered or repaired. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing functions of other protective devices.*
-
- 702.4(A)(2) Automatic Load Connection. ...**
- Exception: In one- and two-family dwellings manual management of the connected load shall be permitted.*
-
- 702.7(A) Standby.** A sign shall be placed at the service-entrance equipment ~~for other than one- and two family dwellings~~ that indicates the type and location of each on-site optional standby power source.
- ~~For one and two family dwelling units, a sign shall be placed at the disconnecting means required in 230.85 that indicates the location of each permanently installed on-site optional stand-by power source disconnect or means to shut down the prime mover as required in 445.19(C).~~
-

NEC Section**Amendment language**

705.12(A)(3) Feeders and Feeder Taps. ...

- (3) For taps sized in accordance with 240.21(B)(2) or (B)(4), the ampacity of taps conductors shall not be less than one-third of the sum of the rating of the overcurrent device protecting the feeder plus the ratings of any power source overcurrent devices connected to the feeder.

Informational note: See Statewide Code Interpretation 21-03.

706.7 Commissioning and Maintenance. Not adopted by the State of Oregon.

708.1 Scope. ...Critical operations areas and critical operations power systems are ~~those systems so classed by municipal, state, federal, or other codes by any governmental agency having jurisdiction or by facility engineering documentation establishing the necessity for such a~~ designated by the owner of the facility. A building official has no authority to ~~designate or require designation of an area as requiring a critical operations power system.~~ These Critical operations power systems can include but are not limited to power systems, HVAC, fire alarm, security, communications, and signaling for designated critical operations areas.

708.54(A) General. Critical operations power system(s) overcurrent devices shall be selectively coordinated with all supply side overcurrent protective devices.

Selective coordination shall be selected by a licensed professional engineer or other qualified persons engaged primarily in the design, installation, or maintenance of electrical systems. The selection shall be documented and made available to those authorized to design, install, inspect, maintain, and operate the system.

For the purposes of this section, supply side overcurrent protection means those protective devices on the emergency system supply side and not on the normal power supply side. The protection shall be selectively coordinated using the higher of the normal power supply fault current levels or emergency system fault current levels. Overcurrent devices shall be selectively coordinated for .01 seconds and greater.

708.54(C) Modifications. ...

Exception No. 1: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.

Exception No. 2: The requirements for selective coordination shall meet the coordination requirements in effect at the time of the original installation when the installation is being maintained, altered or repaired. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing functions of other protective devices.

722.24(A) General. Cables shall be installed in a neat and workmanlike manner. Cables installed exposed on the surface of ceilings and sidewalls shall be supported by the building structure in such a manner that the cable will not be damaged by normal building use. Such cables shall be secured by hardware, including straps, staples, hangers, ~~listed cable ties~~ identified for securement and support, or similar fittings, designed and installed so as not to damage the cable. The installation shall conform to 300.4 and 300.11.

760.24(A) General. Fire alarm circuits shall be installed in a neat and workmanlike manner. Cables and conductors installed exposed on the surface of ceilings and sidewalls shall be supported by the building structure in such a manner that the cable will not be damaged by normal building use. Such cables shall be supported by hardware, including straps, staples, hangers, ~~listed cable ties identified for securement and support,~~ or similar fittings designed and installed so as not to damage the cable. The installation shall also comply with 300.4 and 300.11.

760.41(B) Branch Circuit. The branch circuit supplying the fire alarm equipment(s) shall supply no other loads. The location of the branch-circuit overcurrent protective device shall be permanently identified at the fire alarm control unit. The circuit disconnecting means shall have red identification, ~~shall be accessible only to qualified personnel,~~ and shall be identified as "FIRE ALARM CIRCUIT." The red identification shall not damage the overcurrent protective devices or obscure the manufacturer's markings. This branch circuit shall not be supplied through ground-fault circuit interrupters or arc-fault circuit-interrupters.

NEC Section	Amendment language
760.121(B)	<p>Branch Circuit. ...</p> <p>(4) The circuit disconnecting means shall have red identification, shall be accessible only to qualified personnel, and shall be identified as “FIRE ALARM CIRCUIT.” The red identification shall not damage the overcurrent protective devices or obscure the manufacturer’s markings.</p>
770.24(A)	<p>General. Optical fiber cables shall be installed in a neat and workmanlike manner. Cables installed exposed on the surface of ceilings and sidewalls shall be supported by the building structure in such a manner that the cable will not be damaged by normal building use. Such cables shall be secured by hardware, including straps; staples; cable ties listed and identified for securement and support; and hangers, or similar fittings, designed and installed so as not to damage the cable. The installation shall also conform to 300.4 and 300.11. ...</p>
770.48(B)	<p>Nonconductive Cables in Raceway. Unlisted nonconductive outside plant optical fiber cables shall be permitted to enter the building from the outside and shall be permitted to be installed in any of the following raceways:</p> <ol style="list-style-type: none"> (1) Intermediate metal conduit (IMC) (2) Rigid metal conduit (RMC) (3) Rigid polyvinyl chloride conduit (PVC) (4) Electrical metallic tubing (EMT) (5) <u>Electrical Nonmetallic Conduit (ENT)</u>
800.24(A)	<p>General. Circuits and equipment shall be installed in a neat and workmanlike manner. Cables installed exposed on the surface of ceilings and sidewalls shall be supported by the building structure in such a manner that the cable will not be damaged by normal building use. Such cables shall be secured by hardware, including straps; staples; cable ties listed and identified for securement and support; and hangers, or similar fittings, designed and installed so as not to damage the cable. The installation shall also conform to 300.4 and 300.11. Plenum cable ties and other nonmetallic cable accessories used to secure and support cables in other spaces used for environmental air (plenums) shall be listed as having low smoke and heat release properties in accordance with 800.170.</p>