



*January 15, 2008*

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**2008 Oregon Electrical Specialty Code  
Adoption rule**

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**Opportunity for public input:**

Those who would like to provide public testimony may attend a public hearing on January 15, 2008 at 1:30 p.m. at the Building Codes Division, Conference Room A. Written comments may also be submitted to the contact below. The last day to submit written comments is 5:00 p.m. January 18, 2008.

**Purpose of the rule:**

This proposed rule adopts the 2008 Oregon Electrical Specialty Code (OESC) for non-Low-Rise construction.

This proposed rule would be effective April 1, 2008.

**Citation:**

Amend: OAR 918-305.

To view the amended code language click the following:

[Amendments to the 2008 National Electrical Code.](#)

**History:**

From September 14 to October 31, 2007, the division received code amendment proposals. The Electrical Code Review Committee met four times from October to November 2007. At these meetings, the committee reviewed model code changes from the 2005 National Electrical Code (NEC) to the 2008 NEC, existing Oregon amendments, new code amendment proposals, and existing statewide code interpretations and alternate method rulings.

The Electrical and Elevator Board reviewed the code amendments on December 6, 2007. The board approved the committee's recommendation to go public hearing and subsequent adoption.

**Contact:**

If you have questions or need further information, please contact Hearing Officer Dennis Clements at (503) 378-4459, or [Dennis.L.Clements@state.or.us](mailto:Dennis.L.Clements@state.or.us) .



Secretary of State  
**NOTICE OF PROPOSED RULEMAKING HEARING\***

A Statement of Need and Fiscal Impact accompanies this form.

Department of Consumer and Business Services, Building Codes Division	918	
Agency and Division	Administrative Rules Chapter Number	
Nicole M. Jantz	PO Box 14470, Salem, OR 97309	(503) 378-4130
Rules Coordinator	Address	Telephone

**RULE CAPTION**

Adopts the 2008 Oregon Electrical Specialty Code (OESC) for non low-rise construction.

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

January 15, 2008	1:30 p.m.	1535 Edgewater Street NW, Salem, Oregon	Dennis L. Clements
Hearing Date	Time	Location	Hearings Officer

*Auxiliary aids for persons with disabilities are available upon advance request.*

**RULEMAKING ACTION**

Secure approval of new rule numbers (Adopted or Renumbered rules) with the Administrative Rules Unit prior to filing.

**ADOPT:**

**AMEND:** 918-305

**REPEAL:**

**RENUMBER:**

**AMEND & RENUMBER:**

Stat. Auth.: ORS 455.030 & 479.730

Other Auth.:

Stats. Implemented: ORS 455.030 & 479.730

**RULE SUMMARY**

The proposed rules adopt the 2008 edition of the National Electrical Code (NEC) with amendments and will be known as the Oregon Electrical Specialty Code (OESC) for non low-rise construction.

The Agency requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing the negative economic impact of the rule on business.

January 18, 2008 5:00 p.m.

**Last Day for Public Comment** (Last day to submit written comments to the Rules Coordinator)

Signature	Mark Long	Date
	Printed name	

\*Hearing Notices published in the Oregon Bulletin must be submitted by 5:00 pm on the 15<sup>th</sup> day of the preceding month unless this deadline falls on a weekend or legal holiday, upon which the deadline is 5:00 pm the preceding workday. ARC 920-2005

**STATEMENT OF NEED AND FISCAL IMPACT**

A Notice of Proposed Rulemaking Hearing or a Notice of Proposed Rulemaking accompanies this form.

Department of Consumer and Business Services, Building Codes Division

918

Agency and Division

Administrative Rules Chapter Number

**In the Matter of:** Amending 918-305**Rule Caption:** (Not more than 15 words that reasonably identifies the subject matter of the agency's intended action.) Adopts the 2008 Oregon Electrical Specialty Code (OESC) for non low-rise construction.**Statutory Authority:** ORS 455.030 & 479.730**Other Authority:****Stats. Implemented:** ORS 455.030 & 479.730

**Need for the Rule(s):** ORS 455.030 and 479.730 require the department to adopt a state building code to govern the construction, reconstruction, alteration and repair of buildings and other structures. The law further requires the building code to establish uniform performance standards providing reasonable safeguards for health, safety, welfare, comfort and security of the residents of Oregon who are occupants and users of buildings and to provide for the use of modern methods, materials and maximum energy conservation. The department, with the approval of the Electrical and Elevator Board, may amend such codes provided it conforms, insofar as it is practicable, to model building codes generally accepted and in use throughout the United States.

The current Oregon Electrical Specialty Code (OESC) adopted is the 2005 edition of the National Electrical Code (NEC) with Oregon amendments. This proposed rule is needed to adopt the 2008 edition of the NEC with Oregon amendments.

**Documents Relied Upon, and where they are available:** Draft rules; Electrical Code Review Committee minutes from October through November 2007, and minutes of the Electrical and Elevator Board meeting of December 6, 2007 are available from the division's Rule Coordinator located at 1535 NW Edgewater Street, Salem, Oregon, 97304 and are posted on the division's Web site.

**Fiscal and Economic Impact, including Statement of Cost of Compliance:** The Electrical Code Review Committee ("Committee") discussed the fiscal and economic impact of each code change proposal. Based on the information available at this time, the division has determined that state agencies, units of local government and members of the public who inspect, construct, remodel, alter or repair buildings and other structures could realize some slight cost increases as a result of the proposed code changes. Cost increases are a result of adopting a requirement for a larger access door and lighting for sign installations.

The division estimates that State agencies, cities and counties will also incur typical costs for the purchase of new code books for certified staff. The division is unable to determine the cost of code change training. Based on available information, the division is unable to quantify any additional fiscal or economic impact on state agencies, cities and counties for changes in construction practices or use of new materials.

The division licenses approximately 24,000 electrical contractors, installers, inspectors and plans reviewers. Many of these contractors are small businesses and will be impacted by changes to the Oregon Electrical Specialty Code. The division is unable to determine the cost of training on code changes for these licensees. The proposed rules impose no additional reporting, record keeping, or administrative requirements on small businesses. These proposed rules impose no new equipment, supplies, labor and administrative requirements and no additional professional services are required to comply with these rules. No other impacts can be determined or quantified at this time based on information available to the division.

The Electrical and Elevator Board made the specific finding that the added cost is necessary for the health and safety of the occupants and the public, or is necessary to conserve scarce resources.

**How were small businesses involved in the development of this rule?** Small businesses were represented on the Electrical Code Review Committee and on the Electrical and Elevator Board.

**Administrative Rule Advisory Committee consulted?:** Yes

If not, why?:

Mark Long

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Signature

Printed name

Date

Administrative Rules Unit, Archives Division, Secretary of State, 800 Summer Street NE, Salem, Oregon 97310. ARC 925-2005

## Amendments to the NEC

### 918-305-0105

#### Amend Article 90 -- Introduction

Amend ~~Section 90.4 Enforcement~~ by inserting the following after ~~Section 90.4~~. Section 90.4(A) Electrical products sold or disposed of in conjunction with a persons business must either be certified or exempt under ORS 479.760.

**(1) Amend Section 90.4 Enforcement by inserting the following after the second paragraph: "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."**

**(2) Amend 90.4 Enforcement by inserting the following after Section 90.4: "Section 90.4(A) Where the ~~2005~~ ~~2008~~ 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.**

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

### 918-305-0110 (REPEAL)

#### Amend Article 100 -- Definitions

~~(1) Replace the definitions of "Building", "Labeled" and "Listed" in Article 100, with the definitions of "Building", "Labeled" and "Listed" in OAR 918-251-0090.~~

~~(2) Replace the definition of "Dwelling, Multifamily" in Article 100, with the definition of "Multifamily Dwelling" in ORS 479.530.~~

~~(3) Amend Article 100 by adding the definition for "Certified electrical product" means an electrical product that is certified under ORS 479.760 and is not de-certified.~~

~~(4) Amend Article 100 by adding the definition for "Fire protection system" means approved devices, equipment and systems or combinations of systems used to detect a fire, activate an alarm, extinguish a fire, control or manage smoke and products of a fire or any combination thereof.~~

~~Stat. Auth.: ORS 479.730~~

~~Stats. Implemented: ORS 479.730~~

~~Hist.: BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05; BCD 29-2005, f. 12-30-05, cert. ef. 1-1-06~~

### 918-305-0120

#### Amend Article 110.8 -- Requirements for Electrical Installations

(1) Insert the following after Section 110.8:

(a) For the purpose of this article, "schools" are buildings used for education purposes, excluding administrative offices, dormitories or detached utility buildings not used for education or training.

(b) Raceway systems, type MI, MC and AC cable or manufactured metallic wiring assemblies shall be the wiring method in the following:

(A) Schools, universities, colleges, child care centers and correctional facilities as defined by the Oregon Structural Specialty Code;

(B) Hospitals as defined in NEC Article 517; and

(C) Group I-2 Occupancies and Group E Occupancies as defined in Chapter 3 of the adopted Oregon Structural Specialty Code; and

(D) SR Occupancies classified as SR 2 as defined in Appendix SR of the adopted Oregon Structural Specialty Code.

(2) The requirements of subsection (1)(b) of this rule do not apply to:

(a) Spaces in a retail center used for adult training or educational purposes;

(b) SR Occupancies classified as SR 1, SR 3 or SR 4 as defined in Appendix SR or R occupancies classified in Chapter 3 of the adopted Oregon Structural Specialty Code;

(c) Foster homes providing family-type care only;

(d) Class 2 and 3 systems installed in conformity with Articles 725, 727, 760, 770, 780 and Chapter 8 of the ~~2005~~ **2008 National Electrical Code NEC**; and

(e) Power limited fire protection alarm systems.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: DC 13-1987, f. & ef. 5-1-87; Renumbered from 814-022-0620; BCA 17-1990, f. & cert. ef. 6-27-90; BCA 12-1993, f. 6-23-93, cert. ef. 7-1-93; BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; Renumbered from 918-290-0030; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05; BCD 29-2005, f. 12-30-05, cert. ef. 1-1-06

## **918-305-0130**

### **Amend Article 210 -- Branch Circuits**

~~(1) Amend Section 210.8 Ground Fault Circuit Interrupter Protection for Personnel by inserting the following after Section 210.8(A)(2) Exception No. 2: "Exception No. 3: Receptacle ground fault protection shall not be required for a dedicated branch circuit serving a single receptacle for sewage or sump pumps." Amend Section 210.8(A)(5) by inserting the following after exception No. 3: "Exception No. (4) to (5) Receptacle ground fault protection shall not be required for a dedicated branch circuit serving a single receptacle for sewage or sump pumps."~~

~~(2) Amend Section 210.8 Ground Fault Circuit Interrupter Protection for Personnel by inserting the following after Section 210.8(A) (7) "Exception No. 1: A single receptacle or a duplex receptacle for one or two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord and plug connected in accordance with 400.7(A)(7), or (A)(8)."~~

#### **The following provisions of Article 210 are amended:**

**(1) Insert the following exception after Section 210.8(A): " Exception: A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection."**

**(a) Amend Section 210.8(A) by inserting the following: "FPN: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems.**

**(2)(a) Insert the following after Section 210.8(A)(2): "Exception No. 1 to (2): A single receptacle for each appliance within a dedicated space that, in normal use, is not easily moved from one place to another, that is cord-and-plug connected, and the receptacle is**

**labeled as “not GFCI protected.” Exception No. 2 to (2): Receptacle ground fault protection shall not be required for a dedicated branch circuit serving a single receptacle for sewage or sump pumps.”**

**(b) Amend Section 210.8(A)(2) by inserting the following: “Receptacles installed under the exceptions to 210.8(A)(2) shall not be considered as meeting the requirements of 210.52(G).”**

**(3) Insert the following after Section 210.8(A)(4): “Exception to (4): Receptacle ground fault protection shall not be required for a dedicated branch circuit serving a single receptacle for sewage or sump pumps.”**

**(4)(a) Delete the exception to Section 210.8(A)(5) and insert after Section 210.8(A)(5): “Exception No. 1 to (5): A single receptacle for each appliance within a dedicated space that, in normal use, is not easily moved from one place to another, that is cord-and-plug connected, and the receptacle is labeled as “not GFCI protected.”**

**(b) Exception No 2 to (5): Receptacle ground fault protection shall not be required for a dedicated branch circuit serving a single receptacle for sewage or sump pumps.”**

**(c) Amend Section 210.8(A)(5) by deleting the FPN after Section 210.8(A)(5).**

**(5)(a) Amend Section 210.8(A)(7) by inserting “or other sinks” after the clause “laundry utility and wet bar sinks” in the first sentence of Section 210.8(A)(7).**

**(b) Amend Section 210.8(A)(7) by adding the following: “Exception to (7): A single receptacle for each appliance within a dedicated space that, in normal use, is not easily moved from one place to another, that is cord-and-plug connected, and the receptacle is labeled as “not GFCI protected.”**

**(6)(a) Amend Section 210.12(B) to read: “(B) Dwelling Units. All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit bedrooms shall be protected by a listed arc-fault circuit interrupter, combination-type, installed to provide protection of the branch circuit.”**

**(b) Amend Section 210.12(B) by adding the following: “Exception No. 3: Electrical outlets dedicated for the use of single station smoke alarms (interconnected or not), nurse call, or medical equipment shall not be required to have ACFI protection.”**

**(7) Amend Section 210.52 to read: “(I) Alcoves. In dwelling units, alcoves shall have at least one receptacle installed. These outlets shall be in addition to the required hall outlets. As used in this subsection an Alcove is an area extending from, and returning to, the common wall of hallways, foyers, entries, and landings with a depth of not less than 2 ft. or more and a length of not less than 3 ft.”**

**(8) Amend Figure 210.52(C)(1) to read: “Space exempt from the wall line if X < 900mm (36 in.)”**

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; BCD 15-2001(Temp), f. & cert. ef. 11-26-01 thru 5-24-02; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05; BCD 29-2005, f. 12-30-05, cert. ef. 1-1-06

**918-305-0XXX ( 0140 tentative)**

**Amend Article 225 -- Outside Branch Circuits and Feeders**

**Amend Section 225.36 by adding the following: “Exception No. 2: In single light pole installations that have the connections to the light pole circuit made in a location**

**accessible only to qualified persons, certified in-line fuse holders shall be allowed, subject to special permission.”**

**918-305-0150 (RETAIN)**

**Amend Article 230 -- Services**

(1) Amend Section 230.40 ~~Number of Service Entrance Conductor Sets~~, Exception No. 3 by adding: "when there are continuous metallic paths bonded to the grounding system in the buildings involved, a disconnect, a separate grounded conductor and equipment grounding conductor shall be installed to meet the provisions of Article 225."

(2) Amend Section 230.43 ~~Wiring Methods for 600 Volts, Nominal, or Less~~ by adding the following to the end of the first paragraph: "Exception: Items (13) and (15) are limited to traffic control devices and highway lighting poles."

(3) Amend Section 230.70(A)(1), ~~Readily Accessible Location~~ by adding an exception **the following**: "Exception: In existing installations where only the service panel or meter base is changed and the existing service conductors meet the ampacity requirements, or the existing conduit is of sufficient size to install new conductors, the panel may remain at the present location providing all requirements of Sections 110.26 and 240.24 are met. This exception does not require a main disconnect located nearest the point of entry."

(4) Amend Section 230.95(C) ~~Performance Testing~~ to read: "The ground-fault protection system shall be performance tested when first installed on the site. The test shall be conducted in accordance with instructions provided with the equipment. This test shall be performed by persons having proper training and experience required to perform and evaluate the results of such performance testing. A written record of this test shall be made available to the authority having jurisdiction. This report shall be signed by the person(s) performing this test."

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: DC 13-1987, f. & ef. 5-1-87; BCA 13-1989, f. & cert. ef. 5-24-89; Renumbered from 814-022-0630; BCA 17-1990, f. & cert. ef. 6-27-90; BCA 12-1993, f. 6-23-93, cert. ef. 7-1-93; BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; Renumbered from 918-290-0040; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05; BCD 29-2005, f. 12-30-05, cert. ef. 1-1-06

**918-305-0160**

**Amend Article 250 -- Grounding**

The following provisions of Article 250 are amended:

(1) ~~Section 250.24(A) — System Grounding Connections~~. Insert the following after Section 250.24(A)(1): "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 Section 230.95 shall not be performed prior to the above installation requirements. Warning signs shall be installed."

(2) ~~Section 250.24(B) — Main Bonding Jumper.~~ Insert the following after Section 250.24(B), Exception No. 2: "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 Section 230.95 shall not be performed prior to the above installation requirements. Warning signs shall be installed."

(3) ~~Section 250.30(A) — Grounded Systems.~~ Insert the following after Section 250.30(A)(1) Exception No. 3: "Exception No. 4: A premises' electrical system with an alternate source of power, such as an emergency or standby generator, connected to the normal system via a transfer switch, shall have the alternate source neutral grounded only when the transfer switch causes the neutral conductor to be switched between the normal and the emergency sources. The on-site ground fault test required by Sections 215.10, 230.95 and 517.17 shall not be performed prior to the above installation requirements. Warning signs shall be installed."

**(3)(a) Section 250.32(A)-- Grounding Electrode. Amend the first sentence of 250.32(A) to read: "Building(s) or structure(s) supplied by feeder(s) or branch circuit(s) shall have a grounding electrode or grounding electrode system installed in accordance with 250.50."**

**(b) Amend Section 250.32 (A) by amending the exception to read: "Exception: A grounding electrode shall not be required where only a single branch circuit supplies the building or structure and the branch circuit includes an equipment grounding conductor for grounding the conductive non-current-carrying parts of equipment. For the purpose of this section, a multiwire branch circuit shall be considered as a single branch circuit."**

**(4) Amend 250.32(B) to read: "Grounded Systems. For a grounded system at the separate building or structure, the connection to the grounding electrode and grounding or bonding equipment, structures, or frames required to be grounded or bonded shall comply with either 250.32(B)(1) or (B)(2).**

**(a) Equipment Grounding Conductor. An equipment grounding conductor as described in 250.118 shall be run with the supply conductors and connected to the building or structure disconnecting means and to the grounding electrode(s). The equipment grounding conductor shall be used for grounding or bonding of equipment, structures, or frames required to be grounded or bonded. The equipment grounding conductor shall be sized in accordance with 250.122. Any installed grounded conductor shall not be connected to the equipment grounding conductor or to the grounding electrode(s).**

**(b) Grounded Conductor. Where (1) an equipment grounding conductor is not run with the supply to the building or structure, (2) there are no continuous metallic paths bonded to the grounding system in each building or structure involved, and (3) ground-fault protection equipment has not been installed on the supply side of the feeder(s), the grounded conductor run with the supply to the building or structure shall be connected to the building or structure disconnecting means and to the grounding electrode(s) and shall be used for grounding or bonding of equipment, structures, or frames required to be**

**grounded or bonded. The size of the grounded conductor shall not be smaller than the larger of either of the following:**

**(A) That required by 220.61**

**(B) That required by 250.122.”**

**(5) Amend Section 250.32(D) to read as follows: “Where one or more disconnecting means supply one or more additional buildings or structures under single management, and where these disconnecting means are located remote from those buildings or structures in accordance with the provisions of 225.32, Exceptions Nos. 1 and 2, all of the following conditions shall be met:**

**(a) The connection of the grounded conductor to the grounding electrode at a separate building or structure shall not be made.**

**(b) An equipment grounding conductor for grounding any non-current-carrying equipment, interior metal piping systems, and building or structural metal frames is run with the circuit conductors to a separate building or structure and bonded to existing grounding electrode(s) required in Part III of this article, or, where there are no existing electrodes, the grounding electrode(s) required in Part III of this article shall be installed where a separate building or structure is supplied by more than one branch circuit.**

**(c) Bonding the equipment grounding conductor to the grounding electrode at a separate building or structure shall be made in a junction box, panelboard, or similar enclosure located immediately inside or outside the separate building or structure.”**

**(4) (6) Section 250.52(A)(3) — Concrete Encased Electrode.** Insert the following at the end of Section 250.52(A)(3), as follows: "In new construction with steel reinforced concrete footings, a concrete-encased grounding electrode connected to the grounding electrode system is required. The installation shall meet the requirements of Section 250.50. When a concrete encased electrode system is used, a minimum size of 1/2-inch reinforcing bar or rod shall be stubbed up at least 12 inches above the floor plate line or floor level, whichever is the highest, near the service entrance panel location."

**(5) (7) Section 250.52(B) — Electrodes Not Permitted for Grounding.** Insert the following after Section 250.52(B)(2), as follows "(3) 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 250.52 and 250.58**104(A).**"

**(6) (8) Section 250.56 — Resistance of Rod, Pipe, and Plate Electrodes.** Insert the following at the end of the first sentence **of Section 250.56:** "For permanent installations where the only grounding electrode is a single ground rod, pipe or plate, documented verification of 25 ohms or less shall be provided. Documented verification shall be done by a recognized method, provided by the installer, and made available for the electrical inspector."

**(9) Amend the first sentence of 250.94 to read: “An intersystem bonding termination or exposed and supported length of # 6 bare copper conductor for connecting intersystem bonding and grounding conductors required for other systems shall be provided external to enclosures at the service equipment and at the disconnecting means for any additional buildings or structures.**

**(7) (10) Section 250.118 — Types of Equipment Grounding Conductors.** Insert the following after Section 250.118(14): "Where metallic conduit is installed on roof tops, an

equipment grounding conductor shall be provided within the raceway and sized per Section 250.122."

~~(8) Section 250.184(B) — Multiple Grounding. Change Sections 250.184(C)(a), (b) and (c) to: "(1) Services (2) Underground circuits where a bare copper neutral is exposed (3) Overhead circuits installed outdoors."~~

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: DC 13-1987, f. & ef. 5-1-87; Renumbered from 814-022-0660; BCA 17-1990, f. & cert. ef. 6-27-90; BCA 12-1993, f. 6-23-93, cert. ef. 7-1-93; BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; Renumbered from 918-290-0070; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05; BCD 29-2005, f. 12-30-05, cert. ef. 1-1-06

### 918-305-0165

#### Amend Article 334 -- Nonmetallic-Sheathed Cable: Types NM, NMC, and NMS

~~(1) Amend Section 334.10 Uses Permitted, (2), (3), and (4) by deleting current language and replacing with the following:~~

~~"(2) Multifamily dwellings and other structures, except as prohibited in Section 334.12."~~

~~"(3) Cable trays, where the cables are identified for the use."~~

~~(2) Amend Section 334.12(A)(1) Types NM, NMC, and NMS by deleting current language and replacing with the following: "In any multifamily dwelling or other structure exceeding three floors above grade. For the purposes of this article, the first floor of a building shall be that floor that has 50 percent or more of the exterior wall surface area level with or above finished grade. One additional level, that is the first level and not designed for human habitation and used only for vehicle parking, storage or similar use, shall be permitted."~~

**(1) Insert the following exception after Section 334.12(A)(2): "Exception: Types NM, NMC, and NMS cables shall be permitted where installed in accordance with 334.15."**

~~(3) (2) Amend Section 334.15(B) Protection from Physical Damage by adding **the following to the end of the Section**: "Exposed nonmetallic sheathed cable shall be protected where it is installed horizontally below **less than** 8 feet above the floor. Exposed nonmetallic sheathed cable below **less than** 8 feet 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 or 1/2" **-inch** drywall."~~

**(3)(a) Amend Section 334.15(C) by deleting "and crawlspaces" from the subsection heading.**

**(b) Amend the first sentence of Section 334.15 to read: "Where cable is run at angles with joists in unfinished basements, 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."**

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

### 918-305-0180 (RETAIN)

#### Amend Article 394 -- Concealed Knob-and-Tube Wiring

Add the following to the end of Section 394.12-~~Uses Not Permitted~~: "Exception: The provisions of Section 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 2005 Edition. 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 of NFPA 70-2005. 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 Section 240.53."

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCA 12-1993, f. 6-23-93, cert. ef. 7-1-93; BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; Renumbered from 918-290-0085; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05; BCD 29-2005, f. 12-30-05, cert. ef. 1-1-06

#### **918-305-0XXX (0185 tentative)**

##### **Amend Article 400 -- Flexible Cords and Cables.**

**Amend Section 400.7 by adding the following: "(11) Listed assemblies of fixtures and controllers, approved by the Federal Aviation Administration."**

#### **918-305-0XXX (0195 tentative)**

##### **Amend Article 406 -- Receptacles, Cord Connectors, and Attachment Plugs (Caps).**

**Amend Section 406.11 by adding the following: "Standard receptacles shall be permitted until October 1<sup>st</sup>, 2008."**

#### **918-305-0190 (REPEAL)**

##### **Amend Article 410 -- Luminaires (Lighting Fixtures), Lampholders, and Lamps**

Insert following **Section 410.66(B)**: "(C) Only Type IC recessed fixtures shall be permitted to be installed in cavities intended to be insulated."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: DC 13-1987, f. & ef. 5-1-87; Renumbered from 814-022-0680; BCA 17-1990, f. & cert.

ef. 6-27-90; BCA 12-1993, f. 6-23-93, cert. ef. 7-1-93; BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; Renumbered from 918-290-0090; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02

**918-305-0205 (RETAIN)**

**Amend Article 422 -- Appliances**

Add to the first paragraph of **Section 422.34** Unit Switch(es) as Disconnection Means: "Unit switches on ranges, ovens and dishwashers shall not be considered the disconnect required by this section."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: f. 8-1-02, cert. ef. 10-1-02; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02

**918-305-0210 (RETAIN)**

**Amend Article 424 -- Fixed Electric Space-Heating Equipment**

In **Section 424.3(A)** Branch Circuit Requirements add the following to the end of the subsection: "New equipment may be connected to an existing circuit that does not serve fixed electric space-heating equipment. The new equipment may be reconnected to that circuit, provided the equipment being installed has an ampere rating of not more than 50 percent of the branch circuit rating."

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02

**918-305-0XXX**

**Amend Section 500.8(A) to read: "(A) Suitability. Suitability of identified equipment shall be determined by compliance with ORS 479.760."**

**918-305-0250 (RETAIN)**

**Amend Article 620 -- Elevators, Dumbwaiters, Escalators, Moving Walks, Wheelchair Lifts and Stairway Chair Lifts**

(1) Amend ~~Delete FPN No. 1 in Section 620.1~~ Scope by replacing FPN No. 1 **and replace with the following:** "FPN No.1: For further information, see the **Oregon Elevator Specialty Code** as adopted in OAR chapter 918, division 400."

(2) Amend Section 620.2 ~~Definitions~~ by adding: "Separate Branch Circuit. A circuit dedicated solely for the purpose intended without other devices, systems or equipment connected to the circuit."

(3) Amend ~~Section 620.5 Working clearances~~ by adding: "Where machine room doors swing inward, the arc of the door shall not encroach on those clearances required by Section 110.26(A)."

(4) Amend Section 620.11(A) ~~Hoistway Door Interlock Wiring~~ to read: "The conductors of the hoistway door interlocks from the hoistway riser shall be flame-retardant and suitable for a temperature of not less than 200° C (392°F). Conductors shall be Type SF or equivalent except where not required by the Elevator Safety Code (ASME A17.1)."

(5) Amend ~~Section 620.21(A)(1)(a)~~ by adding: "The length of flexible metal conduit shall not exceed 6 feet (1.83 m)."

(6) ~~(5)~~ Amend Section 620.37(A) ~~Uses Permitted~~ by adding: "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."

(7) ~~(6)~~ Amend ~~Section 620.51(B) Operation~~ by adding to the end of the paragraph: "When 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."

(8) ~~(7)~~ Amend ~~Section 620.51(C) Location~~ by adding: "Where machine rooms are provided, the disconnecting means required by Section 520.51 shall be located within 24 inches (610 mm) 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 24 inches (610 mm) 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."

(9) ~~(8)~~ Amend Section ~~620.51(C)(4) On Wheelchair Lifts and Stairway Chair Lifts~~ to read: "On wheelchair platform lifts and stairway chairlifts, the disconnecting means shall be located within sight of the motor controller or lift and within six feet (1.83 m) of the motor controller. The disconnecting means shall not be located in the runway enclosure ~~and a means shall be provided to lock the door or cover in the closed position.~~"

(10) ~~(9)~~ Amend ~~Section 620.51(C)~~ by adding: "(5) Residential installations. 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."

(11) ~~(10)~~ Add new section: "~~Section 620.86 Flexible Metal Conduit~~. Where flexible metal conduit is utilized between the disconnecting means specified in Section 620.51 and the elevator controller, an equipment grounding conductor shall be provided within the raceway and sized per ~~Section 250.122 and Table 250.122.~~"

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 19-1996, f. 9-17-96, cert. ef. 10-1-96; BCD 1-2000, f. 1-6-00, cert. ef. 4-1-00; BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

### **918-305-0270 (RETAIN)**

#### **Amend Article 692 -- Fuel Cell Systems**

Amend **Section 692.6** Listing Requirement to read: "The fuel cell system shall be certified for its intended application prior to final approval."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 19-2002, f. 8-1-02, cert. ef. 10-1-02; BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

### **918-305-0XXX (0275 tentative)**

**Amend Article 700 Emergency Systems**

**(1) Amend Section 700.25 by inserting the following Fine Print Note after the Section: “FPN: Fuses and circuit breakers for emergency circuit overcurrent protection, where coordinated to ensure selective clearing of fault currents, increase overall reliability of the system.”**

**(2) Strike all of Section 700.27.**

**918-305-0XXX (0277 tentative)**

**Amend Article 701 Legally Required Standby Systems**

**(1) Amend Section 701.15 by inserting the following Fine Print Note after the section: “FPN: Fuses and circuit breakers for emergency circuit overcurrent protection, where coordinated to ensure selective clearing of fault currents, increase overall reliability of the system.”**

**(2) Strike all of Section 701.18.**

**918-305-0XXX (0279 tentative)**

**Amend Article 708 Critical Operations Power Systems (COPS)**

**(1) Amend 708.50 by inserting the following Fine Print Note after the section: “FPN: Fuses and circuit breakers for emergency circuit overcurrent protection, where coordinated to ensure selective clearing of fault currents, increase overall reliability of the system.”**

**(2) Strike all of section 708.54.**

**918-305-0280**

**Amend Article 725 -- Class 1, Class 2 and Class 3 Remote-Control, Signaling, and Power-Limited Circuits**

Amend **Section 725.8 24** Mechanical Execution of Work by replacing the last sentence with "This installation shall also conform with 300.4 and 300.11."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

**918-305-0290 (RETAIN)**

**Amend Article 760 -- Fire Alarm Systems**

Amend **Section 760.8** Mechanical Execution of Work by replacing the last sentence with "The installation shall also conform with 300.4 and 300.11."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

**918-305-0300 (RETAIN)**

**Amend Article 770 -- Optical Fiber Cables and Raceways**

Amend **Section 770.24** Mechanical Execution of Work by replacing the last sentence with "The installation shall also conform with 300.4 and 300.11."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

**918-305-0310 (RETAIN)**

**Amend Article 800 -- Communications Circuits**

Amend **Section 800.24** Mechanical Execution of Work by replacing the last sentence with "The installation shall also conform with 300.4 and 300.11."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

**918-305-0320 (RETAIN)**

**Amend Article 820 -- Community Antenna Television and Radio Distribution Systems**

Amend **Section 820.24** Mechanical Execution of Work by replacing the last sentence with "The installation shall also conform with 300.4 and 300.11."

Stat. Auth.: ORS 479.730

Stats. Implemented: ORS 479.730

Hist.: BCD 23-2004, f. 12-15-04, cert. ef. 4-1-05

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