

## Department of Consumer and Business Services Building Codes Division

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Electrical and Elevator Board
Late submission for Item VII.A.
Thursday, May 27, 2021, 9:30 a.m.
Live virtual-conference board meeting
Audio streamed via the Internet

#### I. Board business

- A. Call to order
- B. Roll call
- C. Approval of agenda and order of business
- D. Approval of the draft meeting minutes of March 25, 2021
- E. Date of the next regularly scheduled meeting: July 22, 2021
- F. Formal farewell to leaving board members:
  - Scott Hall Electrical equipment supplier who otherwise qualifies by experience in the industry
  - Vernon Palmrose Representing the power & light industry
- G. Board vote for membership to the Construction Industry Energy Board for a member who has practical experience in the electrical industry

#### II. Public comment

The division is taking extra precautions for public meetings given concerns regarding the Coronavirus/COVID-19. Board members and staff will be connected by "GoToMeeting." Because of these unusual circumstances, the division is taking steps to ensure an opportunity for written testimony and remote oral testimony for the public. Send your written testimony or request to provide oral public testimony to the boards coordinator 24 hours in advance of this meeting date. Requesting oral testimony for this meeting has a cutoff date of May 26, 2021, at noon. (Additional instructions are at the end of the agenda).

# III. Reports

- A. Board vote on <u>consent orders</u> for five cases proposed for resolution as outlined in the enforcement board report (*Board action required*)
- B. Elevator program update
- C. Electrical program update
- **IV.** Communications None
- V. Appeals None
- VI. Unfinished business None

#### VII. New business

- **A.** Review and approve committee recommendations for <u>new continuing education</u> course and instructor applications (*Late submission included*)
- B. Board review request from <u>HSI to be recognized as a national organization</u> and a nationally accredited continuing education provider for all courses submitted for the current code cycle
- C. Board review the scope of a Limited Residential Electrician (LR) license for clarification
- D. Board review amendment to OAR 918-282-0033 and 918-282-0400 to bring rules in line with the newly enacted requirements of Senate Bill 338

#### **VIII. Announcements** - None

# IX. Adjournment

#### Please read carefully

Temporary instructions for submitting public testimony for board meetings:

- Please submit written testimony for consideration by noon the day before the scheduled meeting by email to debra.j.woods@oregon.gov.
- Include your name and the organization you represent (if any).
- List the board and agenda item to which your comments are related.
- Please include all related material.
- Expect an email from the boards coordinator, the chief, or the chair of the board acknowledging that your testimony has been received and will be presented to the board.
- If you would like to be connected by the GoToMeeting for oral testimony, please send an email to <a href="mailto:debra.j.woods@oregon.gov">debra.j.woods@oregon.gov</a> and the boards coordinator will send you specific instruction on the process by email. Please include your name, organization, and the agenda item to which your testimony relates. The board Chair will manage public testimony during the meeting. Testimony will be limited to 5 minutes.
- If you do not receive confirmation of your testimony within one business day or by 8:30 a.m. on the date of the board meeting, please resubmit your testimony.

Thank you for working with us to ensure the health and safety of all participants.

Note: For information regarding re-appointments or board vacancies, please visit the Governor's website.

# **State of Oregon**

Agenda Item I.D.

# Electrical and Elevator Board Virtual meeting minutes of March 25, 2021

(*Late submissions*)

**Members:** Heather Miller, journeyman electrician, Chair

Thomas Kyle, electrical contractor, Vice-chair

William (BJ) Barlow, electrical equipment manufacturing rep.

Amy Beyer, public member Elizabeth Bunga, building official

Randy Carmony, journeyman elevator installer

Jon Flegel, journeyman electrician Scott Hall, electrical equipment supplier

Robert McNeill, elevator-manufacturing representative

Vernon Palmrose, power and light industry

Ryan Richards, electrical contractor Randy Smith, electrical inspector

**Members absent:** Vacant, owner/manager of a commercial office building

Vacant, commercial underwriter

Vacant, industrial plant employing electricians

**Staff:** Alana Cox, interim administrator, Building Codes Division (BCD)

Dawn Bass, interim deputy administrator, BCD

Keith Anderson, electrical program chief, Policy and Technical

Services (PTS)

Shon Cole, electrical program assistant chief, PTS Jeff Starkey, assistant manager, Statewide Services Todd Smith, interim manager, Enforcement Services

Warren Jackson, manager, Statewide Services

Warren Hartung, elevator program chief, Statewide Services

Julia Hier, senior policy advisor, PTS

Sarah Blam-Linville, contested case representative, Enforcement

Services

Megan Sachet, contested case representative, Enforcement

Services

Tyler Glaze, policy analyst, PTS

Debi Barnes-Woods, boards administrator, PTS Melissa Stiles, policy development coordinator, PTS

Guests: Brian Crise, electrical inspector, City of Portland

Larry Geyer, Quality Electric Mark Epling, electrical supervisor

Nathan Phillips, technical advisor, National Electrical Contractors

Association (NECA)

Ralph Williams, Oregon LBME

Ryan Nielsen, Oregon and Southern Idaho District Council of

Laborers

#### I. Board business

#### A. Call to order

Chair Heather Miller called the virtual Electrical and Elevator Board meeting of March 25, 2021, to order at 9:30 a.m. The division is taking extra precautions for public meetings given concerns regarding Coronavirus/COVID-19 having virtual GoToMeetings streamed live through the division website.

#### B. Roll call

Other than connection issues, all members were present.

This board currently has three vacant positions: Owner/manager of commercial office buildings; fire and casualty underwriter; and a representative of industrial plants regularly employing licensed electricians.

## C. Approval of the amended agenda and order of business

The agenda was previously amended by adding an enforcement case to Item III.A., and by adding a new continuing education course originally missed for Item VII. The <u>amendments were posted</u> to the division website prior to the meeting date. A further amendment will occur to this meeting Agenda for Item I.F., formal farewell to board member Scott Hall. His formal farewell will occur at the next scheduled meeting of May 27, 2021.

Chair Miller ruled the amended agenda and the further amendment to the agenda and order of business approved.

# D. Approval of the board meeting draft minutes

Chair Miller ruled the draft meeting minutes of Jan. 28, 2021, final.

# E. Date of the next regularly scheduled meeting May 27, 2021.

# F. Formal farewell to board member Scott Hall; Electrical equipment supplier who otherwise qualifies by experience

This item will be heard at the next regularly scheduled Electrical and Elevator Board meeting of May 27, 2021.

#### II. Public comment

Ralph Williams, LBME program (in conjunction with Bonnie Trachtenberg, Oregon LBME) was requesting a change for verbiage in the standards, OAR's and other documents that reference the requirements for the Limited Building Maintenance Electrician license to coincide with the National Electrical Code verbiage by combining Light Fixtures and Fluorescent Ballast categories to be titled "Luminaires."

Larry Geyer, Quality Electric, Inc., asked the board to issue a letter backing up their statement that reciprocity may be cancelled between states if the journeyman/apprentice ratios are changed. Idaho State legislators are trying to introduce a bill that would do away with the use of ratios for apprentice to journey level workers.

# III. Reports

Manager of Enforcement Services Todd Smith announced the formal appointment of Alana Cox as Administrator of the Building Codes Division. Alana has served as interim administrator since September 2020. Alana has been with the division since 2016, first as the senior policy advisor, then as the manager of Policy and Technical Services. She has worked closely with the division's seven advisory boards on code adoption and other rulemaking initiatives, and has been very involved in legislative tracking and implementing bills that impact the division.

Manager Smith also announced the hiring of two new field inspectors; Jeffery Pritchett, and before that was Phillip Padilla, then new Contested Case Representative Megan Sachet.

# A. Board vote on consent orders for cases proposed for resolution as outlined in the enforcement board report (*Board action required*)

(One case was added to the agenda and posted to the division website prior to the scheduled meeting).

Megan Sachet, contested case representative, Enforcement Services, discussed Agenda Item III.A., the item which added an additional case to the enforcement board report. Miss Sachet said that the Enforcement Section, acting on the board's behalf, entered into a consent agreement with the two cases since the Jan. 28, 2021, board meeting. Board members reviewed the summary of consent orders before a decision was made.

Motion by Vice-chair Thomas Kyle to approve division recommendation.

#### **Roll call vote:**

*Yea:* BJ Barlow; Amy Beyer; Elizabeth Bunga; Randy Carmony; Jon Flegel; Scott Hall; Robert McNeill; Vernon Palmrose; Ryan Richards; Randy Smith; Vice-chair Thomas Kyle; and Chair Heather Miller.

Nay: None.

Motion carried unanimously.

# B. Summary of enforcement cases by the division as outlined in the enforcement board report (no board action required)

Miss Sachet was available to answer any questions the board may have had.

# C. Elevator program update

Warren Hartung, elevator program chief, Statewide Services, reviewed the statistical reporting for the months of January and February, which were sent to board members the day prior to the scheduled board meeting.

#### D. Electrical program update

Keith Anderson, electrical program chief, introduced Shon Cole, assistant electrical program chief, for the state of Oregon. Shon had previously worked for the division, so he is very familiar with the division and process. We are all very excited to have Shon back with us here at the division.

Chief Anderson discussed the new inspector's course available on the division website here.

During Oregon's ice-storm in February, the Chief received several complaints that an individual was connecting generators to house panels. If not connected properly through a transfer switch, back feeding an electrical panel with a generator can be very dangerous. Luckily, no one was injured, but board member Vernon Palmrose asked if the division could post a safety precaution on the division website to prevent this from happening again. On April of 2021 the following electrical safety precaution was issued: Generator safety notice

- **IV.** Communications None
- V. Appeals None
- VI. Unfinished business None

# VII. New business

# Review and approve committee recommendations for new continuing education course and instructor applications

(One case was added to the agenda and posted to the division website prior to the scheduled meeting).

Policy analyst Tyler Glaze said that the board was to consider all new continuing education applications for instructors and courses the committee reviewed since the committee last met.

**Motion by Vice-chair Thomas Kyle** to approve committee recommendations for approval or denial of courses or instructors.

#### Roll call vote taken:

*Yea:* BJ Barlow; Amy Beyer; Elizabeth Bunga; Randy Carmony; Jon Flegel; Scott Hall; Robert McNeill; Vernon Palmrose; Ryan Richards; Randy Smith; Vice-chair Thomas Kyle; and Chair Miller.

Nay: None.

Motion carried unanimously.

#### VIII. Announcements - None

# IX. Adjournment

Chair Heather Miller adjourned the meeting at 10:01 a.m.

Respectfully submitted by Debi Woods, BCD boards administrator/coordinator.

State of Oregon Board memo

## **Building Codes Division**

May 27, 2021

**To:** Electrical and Elevator Board

**From:** Megan Sachet, contested case representative, Enforcement Services

Subject: Consent orders for cases resolved on behalf of the Electrical and Elevator Board

#### **Action requested:**

To consider the adoption of recent consent orders and issue final orders.

#### **Background:**

The board, through division staff, implemented a civil penalty matrix for electrical violations. The penalty matrix establishes civil penalties based upon the type and number of violations committed within five years of the date of the present violation. The penalty matrix further provides that a stay of some portion of a penalty is within the sole discretion of the board or the division acting on the board's behalf for purposes of settling cases prior to hearing.

The Enforcement Section, acting on behalf of the board, has entered into a consent agreement in five (5) cases since the board's March 25, 2021, meeting. A summary of the consent orders is included for your review.

Each consent order contains the following conditions, any additions or exceptions to these conditions is noted with the individual case information:

- Respondent agrees to fully cooperate with the division's enforcement efforts.
- Respondent understands that further enforcement action may be taken for any other violations.
- Respondent understands that failure to comply with the consent orders may be used as a
  basis for the denial, suspension, revocation, or conditioning of a license, certificate, or
  registration.

In these cases the penalty amounts assessed, amounts suspended, and amounts due and payable are consistent with the board's penalty matrix.

# Electrical and Elevator Board Enforcement Report for May 27, 2021

	Summary Report					
Case #	Name	Violation	Location	Date of Violation	Civil Penalty	Other Comments
C2020-0082 Russ/Sarah	Goodness Power, Inc.	Installation of two new 240 volt electrical circuits; Romex wiring from an electrical distribution panel; new electrical circuit for a refrigerator outlet and all associated electrical wiring.  • Allowing an unlicensed individual to perform electrical installations  • No electrical permit	Salem	July 2020	Assessed: \$3,000 Imposed: \$750 Suspended: \$2,250 This is a first time violator.	Respondent agrees to fully cooperate with the Division's enforcement efforts in other cases that rely on the facts underlying this case.
C2020-0083 Russ/Sarah	Goodness, Timothy	Installation of two new 240 volt electrical circuits; Romex wiring from an electrical distribution panel; new electrical circuit for a refrigerator outlet and all associated electrical wiring.  • Failure to perform signing supervisor duties	Salem	July 2020	Assessed: \$3,000 Imposed: \$750 Suspended: \$2,250 This is a first time violator.	Respondent agrees to cease and desisit from violating the State Building Code. Respondent agrees to fully cooperate with the Division's enforcement efforts in other cases that rely on the facts underlying this case.
C2020-0076 Russ/Sarah	Assured Electric, LLC	Installation of electrical wiring for 6 pre- existing recessed lighting fixtures; Romex wiring for 2 newly installed exterior receptacles; Romex wiring to power exterior light; Romex wiring within the wall for 5-6 electrical receptacles; and installation of 5-6 electrical receptacles.  • Allowing an unlicensed individual to perform electrical work • No elecrical permit	Corvallis	June 2020	Assessed: \$3,000 Imposed: \$750 Suspended: \$2,250 This is a first time violator.	Respondent agrees to fully cooperate with the Division's enforcement efforts in other cases that rely on the facts underlying this case.
C2020-0077 Russ/Sarah	Zima, Michael	Installation of electrical wiring for 6 pre- existing recessed lighting fixtures; Romex wiring for 2 newly installed exterior receptacles; Romex wiring to power exterior light; Romex wiring within the wall for 5-6 electrical receptacles; and installation of 5-6 electrical receptacles.  • Failure to perform signing supervisor duties	Corvallis	June 2020	Assessed: \$3,000 Imposed: \$750 Suspended: \$2,250 This is a first time violator.	Respondent agrees to fully cooperate with the Division's enforcement efforts in other cases that rely on the facts underlying this case.

# Electrical and Elevator Board Enforcement Report for May 27, 2021

	Summary Report					
Case #	Name	Violation	Location	Date of Violation	Civil Penalty	Other Comments
C2020-0078 Russ/Sarah	Goroshnikov, Daniil	Installation of electrical wiring for 6 pre- existing recessed lighting fixtures; Romex wiring for 2 newly installed exterior receptacles; Romex wiring to power exterior light; Romex wiring within the wall for 5-6 electrical receptacles; and installation of 5-6 electrical receptacles.  •No journeyman electrician license	Corvallis	June 2020	Assessed: \$2,000 Imposed: \$500 Suspended: \$1,500 This is a first time violator.	Respondent agrees to fully cooperate with the Division's enforcement efforts in other cases that rely on the facts underlying this case.



State of Oregon Board memo

## **Building Codes Division**

May 27, 2021

**To:** The Electrical and Elevator Board

From: Tyler Glaze, policy analyst, Policy and Technical Services

**Subject:** Continuing Education Applications

#### **Action requested:**

Electrical and Elevator Board consideration of the Continuing Education Committee's recommendations regarding continuing education courses and instructors.

#### **Background:**

The Electrical and Elevator Board establishes continuing education requirements for all electrical licensees in order to ensure licensees possess up-to-date knowledge of the code and administrative requirements. They set standards for approval of courses and instructors in order to have a sufficient number and variety of continuing education courses available to licensees. The board's continuing education committee has been meeting to evaluate courses and instructors on the board's behalf. The committee reviewed the applications electronically on April 30, 2021. The committee reviewed 98 applications from 30 organizations:

- 57 courses were recommended for approval. (Two additional courses were added since the original posting for approval)
- 12 courses were recommended for denial.
- 28 instructors were recommended for approval.
- 1 instructor was recommended for denial.

See attached summary for more information.

In addition to the Oregon Rule and Law criteria, the committee is using the following when reviewing applications:

- NFPA 70E courses are eligible for a maximum of eight hours of code-related credits.
- OSHA 10 courses are eligible for a maximum of four hours of code-related credits.
- OSHA 30 courses are eligible for a maximum of sixteen hours of code-related credits.
- First Aid/CPR courses are eligible for a maximum of four hours of code-related credits (two hours for each course).
- For correspondence courses Provider must submit complete course.
- For online courses Provider must submit a log-on for or screen shots of course content.

# **Options:**

- Approve the committee's recommendations for approval or denial of courses or instructors.
- Amend and approve the committee's recommendation for approval or denial of courses or instructors.
- Disapprove the committee's recommendation for approval or denial of courses or instructors.

# Electrical and Elevator Board Committee on Continuing Education Course and Instructor Review May 27, 2021

# Courses

	Applicant	Course Name	Committee Recommendation	Board Action
1	Advanced Power Solutions	2020 NEC Changes 4 with OR Amendments 4 hours CC: ORL	Approve for 2021 Code Cycle	
2	Advanced Power Solutions	2020 NEC Changes 8 with OR Amendments 4 hours CC: ORL	Approve for 2021 Code Cycle	
3	Advanced Power Solutions	2020 NEC Changes 12 with OR Amendments 4 hours CC: ORL	Approve for 2021 Code Cycle	
4	BlueVolt	2021 Oregon Rule & Law 4 hours ORL	Approve for 2021 Code Cycle	
5	BlueVolt	Article 250 – Grounding & Bonding 8 hours CR	Approve for 2021 Code Cycle	
6	Vancouver Electrical Consulting	2020 Code Update 8 hours CC:MC Only	Approve for 2021 Code Cycle	
7	Vancouver Electrical Consulting	Grounding and Bonding Part 1 8 hours CR	Approve for 2021 Code Cycle	
8	Vancouver Electrical Consulting	Grounding and Bonding Part 2 8 hours CR	Approve for 2021 Code Cycle	
9	Vancouver Electrical Consulting	Oregon Rule and Law 8 hours ORL	Deny	
10	Chester Garrett	2020 NEC Code Changes 8 hours CC:MC Only	Deny	
11	Chester Garrett	Oregon Rules and Law 4 hours ORL	Deny	
12	Complete Electrical Academy	Changes to the National Electrical Code 2020 pt. 1 8 hours CR	Approve for 2021 Code Cycle	
13	Electrical Safety Specialists	4 Hour NFPA 70E Arc Flash and Electrical Hazard Awareness Training	Approve for 2021 Code Cycle	

		4 hours CR	
14	Electrical Safety Specialists	6 Hour NFPA 70E Arc Flash and Electrical Hazard Awareness Training 6 hours CR	Approve for 2021 Code Cycle
15	Electrical Safety Specialists	Qualified Electrical Worker Training 10 hours CR	Approve at 8 hours CR for 2021 Code Cycle
16	Electrical Safety Specialists	Qualified Electrical Worker Refresher Course 4 hours CR	Approve for 2021 Code Cycle
17	Electrical Training NW	Supervising Electricians Exam Preparation 12 hours CC:MC ORL, 8 hours CR, 4 hours ORL	Approve for 2021 Code Cycle
18	ElectricalLicenseRenewal.com	2020 Available Fault Current 4 hours CR	Approve for 2021 Code Cycle
19	ElectricalLicenseRenewal.com	Oregon Rules & Laws – Electrical 4 hours ORL	Approve for 2021 Code Cycle
20	Ewing-Foley	Interconnected Power Sources, 2020 NEC Article 705 4 hours CC:MC Only	Deny
21	Ewing-Foley	Power Quality 4 hours CR	Deny
22	Health and Safety Institute	ASHI CPR and AED (CPRAED) & ASHI CPR, AED, and Basic First Aid (Combo) 8 hours CR (First Aid/CPR/AED)	Approve at 4 hours CR for 2021 Code Cycle
23	Health and Safety Institute	MEDIC First Aid BasicPlus CPR, AED, and First Aid for Adults 4 hours CR (First Aid/CPR/AED)	Approve for 2021 Code Cycle
24	NW Section IAEI	Analysis of Changes NEC – 2020 8 hours CC:MC Only/CR	Approve for 2021 Code Cycle
25	NW Section IAEI	One & Two Family Dwelling Electrical Systems 4 hours CR	Approve at 4 hours CR for 2021 Code Cycle
26	NW Section IAEI	Electrical Code Forum 2 hours CR	Approve for 2021 Code Cycle
27	NW Section IAEI	Energy Storage Systems & Microgrids 2 hours CR	Deny
28	NW Section IAEI	Grounding & Bonding 2 hours CR	Approve for 2021 Code Cycle
29	NW Section IAEI	Hazardous Locations 2 hours CR	Approve for 2021 Code Cycle
30	NW Section IAEI	Motors 2 hours CR	Approve for 2021 Code Cycle
31	NW Section IAEI	Feeder Taps & Supply Side Connections	Approve for 2021 Code Cycle

		2 hours CR		
32	IBEW Local Union #46	Oregon Rules & Laws 4 hours ORL	Approve for 2021 Code Cycle	
33	JADE Learning	OESC and Oregon Rules (2021) 4 hours ORL	Approve for 2021 Code Cycle	
34	Imlah Electrical Consulting	Article 705 Interconnected Power Supply 4 hours CC:MC Only	Approve for 2021 Code Cycle	
35	Joan P. Albert	32 Hour LEB Prep Class (HVAC-R Specific) 32 hours CR	Deny	
36	Electrical Code & Safety	NEC 2020 Code Changes 8 hours CC:MC Only	Approve for 2021 Code Cycle	
37	Juice Electrical Training, LLC	Electrical Safety/NFPA 70E 8 hours CR	Approve for 2021 Code Cycle	
38	Just In Time Training, LLC	Heartsaver First Aid/CPR/AED 6 hours CR (First Aid/CPR/AED)	Approve for 2021 Code Cycle	
39	Macdonald-Miller Facility Solutions	2020 NEC Code Update 4 hours CC:MC Only	Approve for 2021 Code Cycle	
40	Macdonald-Miller Facility Solutions	AHA Heartsaver 1 <sup>st</sup> Aid/CPR 4 hours CR (First Aid/CPR/AED)	Approve for 2021 Code Cycle	
41	Macdonald-Miller Facility Solutions	Arc Flash Safety 4 hours CR	Approve for 2021 Code Cycle	
42	Mayfield Renewables	NEC 2017 & 2020 Solar+Storage Requirements 2 hours CR	Approve for 2021 Code Cycle	
43	Mike Holt Enterprises	2020 NEC Review with Updates, Live Seminar 8 hours CC:MC Only	Approve for 2021 Code Cycle	
44	NIETC	Coyne First Aid/CPR 8 hours CR (First Aid/CPR/AED)	Approve at 4 hours CR for 2021 Code Cycle	
45	Oregon Department of Corrections	Medic First Aid Adult Basic CPR/First Aid/AED 4-6 hours CR (First Aid/CPR/AED)	Approve at 4 hours CR for 2021 Code Cycle	
46	Oregon Electric Test Prep	Calculation Crash Course 4 hours CR	Approve for 2021 Code Cycle	
47	Oregon Electric Test Prep	Calculation Crash Course 8 hours CR	Approve for 2021 Code Cycle	
48	Pacific Inside Electrical JATC	2020 Grounding & Bonding A-D 16 hours CR	Approve for 2021 Code Cycle	

49	Pacific Inside Electrical JATC	2020/2021 Oregon Rule & Law 4 hours ORL	Approve for 2021 Code Cycle	
50	Pacific Inside Electrical JATC	OSHA 30 16 hours CR	Approve for 2021 Code Cycle	
51	Stay Safe Enterprises, LLC	Key Changes in the 2020 Edition of NFPA 70, the National Electrical Code	Approve for 2021 Code Cycle	
<mark>52</mark>	Stay Safe Enterprises, LLC	8 hours CC:MC Only  Understanding the Low Voltage Requirements of the NEC 2020 Edition (Added since original posting) 8 hours CR	Approve for 2021 Code Cycle	
53	The Okonite Company	ABCs of Insulated Cable 2 hours CR	Approve for 2021 Code Cycle	
54	The Okonite Company	Proper Installation of Insulated Cable – Part 1 2 hours CR	Deny	
55	The Okonite Company	Proper Installation of MC Cable 2 hours CR	Deny	
56	Touchstone Consulting, LLC	NEC 2020 Changes Part 1 4 hours CC:MC Only	Approve for 2021 Code Cycle	
57	Touchstone Consulting, LLC	NEC 2020 Changes Part 2 4 hours CC:MC Only	Approve for 2021 Code Cycle	
58	Touchstone Consulting, LLC	Oregon Rule and Law 4 hours ORL	Deny	
59	Tradesmen Electric Inc.	Electrical Calculations 8 hours CR	Approve for 2021 Code Cycle	
60	Tradesmen Electric Inc.	Code Change Part #1 8 hours CC:MC Only	Deny	
61	Tradesmen Electric Inc.	Code Change Part #2 8 hours CC:MC Only	Deny	
62	Tradesmen Electric Inc.	Oregon Rule & Law 4 hours ORL	Approve for 2021 Code Cycle	
63	Local 290	32 hour LEB Prep 32 hours CR	Approve for 2021 Code Cycle	
64	Local 290	Electrical Safety and Maintenance	Approve for 3 hours CR for 2021 Code Cycle	

		8 hours CR	
65	Vector Solutions	Oregon Electrician 2020 NEC Changes: 2 Hour Program #4 (RG-PGM218)	Approve for 2021 Code Cycle
		2 hours CC:MC Only	
66	Vector Solutions	Oregon Electrician 2020 NEC Changes: 2 Hour Program #5 (RG-PGM219)	Approve for 2021 Code Cycle
		2 hours CC:MC Only	
67	Vector Solutions	2020 NEC Changes: Solar PV Systems and Interconnected Power Systems (RV-1155)	Approve for 2021 Code Cycle
		2 hours CC:MC Only	
68	Vector Solutions	2020 NEC Changes: Wiring and Protection (RV-11542)	Approve for 2021 Code Cycle
		2 hours CC:MC Only	
<mark>69</mark>	1 Attempt	Oregon 6 Hour Code Related Course	Approve 2 hours CR for 2021 Code Cycle
	<del></del>	6 hours CR (added since original posting)	

# **Instructors**

	Applicant	Committee Recommendation	Board Action
1	Joe Hertel BlueVolt	Approve for 2021 Code Cycle	
2	Cole Babbitt Vancouver Electrical Consulting	Approve for 2021 Code Cycle	
3	Jason Lindquist Complete Electrical Academy	Approve for 2021 Code Cycle	
4	Doug Tellin Electrical Safety Specialists	Approve for 2021 Code Cycle	
5	Greg Windisch Electrical Safety Specialists	Approve for 2021 Code Cycle	
6	Seth Jones Electrical Safety Specialists	Approve for 2021 Code Cycle	
7	Jeffrey Simpson ElectricalLicenseRenewal.com	Approve for 2021 Code Cycle	
8	Frank Rauch	Deny	
9	Troy Nichols Health and Safety Institute	Approve for 2021 Code Cycle	

10	Christopher Jensen NW Section IAEI	Approve for 2021 Code Cycle	
11	Chad Kennedy NW Section IAEI	Approve for 2021 Code Cycle	
12	Keith Lofland NW Section IAEI	Approve for 2021 Code Cycle	
13	Christine Porter NW Section IAEI	Approve for 2021 Code Cycle	
14	Doug Smith NW Section IAEI	Approve for 2021 Code Cycle	
15	John Kempa Electrical Code & Safety	Approve for 2021 Code Cycle	
16	Paul L. Rosenberg Juice Electrical Training, LLC	Approve for 2021 Code Cycle	
17	Jennifer Walton Just In Time Training, LLC	Approve for 2021 Code Cycle	
18	Seth LaRiviere Macdonald-Miller Facility Solutions	Approve for 2021 Code Cycle	
19	Justine Sanchez Mayfield Renewables	Approve for 2021 Code Cycle	
20	Mario Valdes Mike Holt Enterprises	Approve for 2021 Code Cycle	
21	Dave Jacobsen NIETC	Approve for 2021 Code Cycle	
22	Barry Moreland NIETC	Approve for 2021 Code Cycle	
23	Curtis Sheppard NIETC	Approve for 2021 Code Cycle	
24	Lisa Hammonds Oregon Department of Corrections	Approve for 2021 Code Cycle	
25	Eric Sherman Pacific Inside Electrical JATC	Approve for 2021 Code Cycle	
26	Roy Pollack Stay Safe Enterprises, LLC	Approve for 2021 Code Cycle	
27	Dave Wisniewski The Okonite Company	Approve for 2021 Code Cycle	

28	Elias Campbell Touchstone Consulting, LLC	Approve for 2021 Code Cycle	
29	William Brooks Vector Solutions	Approve for 2021 Code Cycle	





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#### **VIA EMAIL- DELIVERY & READ RECEIPT REQUESTED**

Agenda Item

April 1, 2021

Mr. Keith Anderson **Electrical Program Chief Electrical and Elevator Board** Department of Consumer and Business Services **Building Codes Division** 1535 Edgewater Street NW Salem, OR 97304

Dear Mr. Anderson,

The purpose of this letter is to request, pursuant to 918-035-0040(2), that the Electrical and Elevator Board ("Board") recognize the Health and Safety Institute ("HSI") as a national organization, thus removing the requirement to submit specific courses for approval to the Building Codes Division ("Division"). We request that this recognition be put into place with the approval of our newly submitted courses.

#### I. **Reasons for Requesting Amendment**

a. HSI is comprised of four emergency care training program brands: the American Safety and Health Institute ("ASHI"), MEDIC First Aid®, EMS Safety Services, and 24-7 EMS & Fire. These four brands of training programs include a range of courses covering first aid and CPR training for the community and workplace as well as both basic and advanced life support training and continuing education for healthcare providers.

- b. The American Heart Association<sup>®</sup>, Inc. ("AHA"), the American National Red Cross ("ARC") and HSI are the largest providers of CPR training in the United States.<sup>1, 2</sup>
  - i. The training business units of the HSI, AHA and ARC are similar. Each corporation develops and markets commercially available, proprietary training programs, products, and services to their approved Training Centers, either directly or via distributors.
  - ii. The business structures of the approved Training Centers include sole proprietorships, partnerships, corporations, LLCs, non-profits, as well as both large and small government agencies.
  - iii. Instructors are authorized to certify course participants. Certification requires instructor evaluation of hands-on skills to verify skill competency.
- c. Like the AHA and ARC, HSI is nationally accredited by the <u>Commission on Accreditation of Pre-Hospital Continuing Education</u> ("CAPCE"). CAPCE is the national accrediting body for Emergency Medical Services continuing education courses and course providers. CAPCE Organizational Accreditation demonstrates that HSI has voluntarily submitted to an objective assessment of its ability to meet established standards for educational planning, implementation, and evaluation and that it has met or exceeded those criteria.
- d. Also like the AHA and ARC, HSI is a nationally approved continuing dental education provider by the <u>Academy of General Dentistry</u>, ("AGD"), Program Approval for Continuing Education ("<u>PACE</u>"). AGD PACE approval is based on 13 rigorous standards for identifying high-quality educational organizations.

<sup>&</sup>lt;sup>1</sup>Anderson ML, et al. Rates of cardiopulmonary resuscitation training in the United States. *JAMA Intern Med*. 2014 Feb 1;174(2):194-201 doi: 10.1001/jamainternmed.2013.11320. [Retrieved 09/15/2020]

<sup>2</sup>Virani S, et al. Heart Disease and Stroke Statistics- 2020 Update. A Report from the American Heart Association *Circulation*. 020; 141:00–00. Clinical Statements and Guidelines. Awareness and Treatment, pg. e318 (**Large file**). Available: <a href="https://www.ahajournals.org/doi/pdf/10.1161/CIR.00000000000000757">https://www.ahajournals.org/doi/pdf/10.1161/CIR.00000000000000757</a> [Retrieved 09/15/2020]

- e. HSI publishes and administers a set of <u>quality assurance standards</u> designed to monitor and improve the performance of HSI, its approved Training Centers and Authorized Instructors so that the products and services provided meet or exceed the requirements of regulatory authorities and other approvers.
- f. HSI authorized instructors are required to comply with HSI quality assurance standards, including the requirement to proficient, up to date, currently authorized and teach according to the required knowledge and skill objectives and training program standard of the most current HSI training program used.
  - Only a current and active Instructor is authorized to teach HSI training programs and legitimately issue ASHI, EMS Safety or MEDIC First Aid certification cards
- g. HSI's emergency care training programs brands are currently accepted, approved or recognized as an industry credential meeting the requirements of more than 7000 US state regulatory agencies, occupational licensing boards, national associations, commissions and councils in more than 550 occupations and professions.
- h. HSI is a member of the Council on Licensure, Enforcement and Regulation (<u>CLEAR</u>), the international resource for professional regulation stakeholders. HSI Quality Assurance representatives are <u>Nationally Certified Regulatory Investigators</u>.
- i. HSI is a member of the American National Standards Institute (<u>ANSI</u>) and ASTM International (<u>ASTM</u>) – both globally recognized leaders in the development and delivery of international voluntary consensus standards.

#### II. Conclusion

HSI is a national organization and a nationally accredited continuing education provider. We request that the Board recognize us as such and that this recognition be put into place with the approval of our newly submitted courses. We value, believe in, and promote successful completion of a valid CPR and first aid training program as an important component in protecting public safety, health, and welfare. We look forward to helping the Board and Division protect the health and safety of Oregonians.

Respectfully,

Ralph M. Shenefelt

Senior Vice President

Health and Safety Institute

Cc: Becky Rasca, Manager's Assistant and Customer Service Coordinator, Building Codes Division

State of Oregon Board memo

## **Building Codes Division**

May 27, 2021

**To:** Electrical and Elevator Board

**From:** Keith Anderson, electrical program chief, Policy and Technical Services

**Subject:** Clarification of scope of work for Limited Residential Electrician license

## **Action requested:**

Electrical and Elevator Board review and recommend license clarification regarding the scope of work of the Limited Residential Electrician license.

#### **Background:**

The division has received a request from industry to provide a license clarification regarding the scope of work for the Limited Residential Electrician ("LR") license. The attached clarification attempts to answer several questions regarding the LR scope of work, including what components, residential building sizes, and usage types are appropriate for LR license holders. This clarification also clarifies the differences between the LR license scope of work and similar inspector certifications, such as Residential Electrical Inspector.

#### **Discussion:**

The division requests that the board approve the clarification regarding the scope of the LR license under OAR 918-282-0180.

## **Options:**

- Board may approve the license clarification regarding the scope of the LR license under OAR 918-282-0180.
- Board may alter and approve the license clarification regarding the scope of the LR license under OAR 918-282-0180.
- Board may disapprove the license clarification regarding the scope of the LR license under OAR 918-282-0180 and state the reason for disapproval for the record.



# Scope of license: Limited Residential Electrician (LR)

**Rules:** Oregon Administrative Rule 918-282-0180

Date: TBD

**Subject:** Scope of the Limited Residential Electrician (LR) license

#### **Background:**

Limited Residential Electrician (LR) licensees are permitted to perform electrical work on single family and multifamily dwellings in structures with a height of not more than three stories above grade plane as further determined by the building official. This includes, but is not limited to: detached one- and two-family dwellings, townhouses, apartment houses, and non-transient congregate living facilities.

The following uses are excluded from the scope of the LR: facilities or homes described in ORS Chapters 329A, 418 and 443; transient residential occupancies; licensed facilities where care is provided; Group R-4 occupancies; buildings four or more stories in height; and commercial uses. For the purposes of the LR license, "transient use" shall mean an intended occupancy of not more than 30 days.

The scope of the LR license is not the same as the scope of the Residential Electrical Inspector (CAE) which is limited to structures governed by the Oregon Residential Specialty Code (ORSC).

#### **Ouestions and answers:**

1. Is an LR licensee permitted to work on all electrical components, including the service, of one- and two-family dwellings?

Yes, but limited to structures of not more than 3 stories above grade

2. Is an LR licensee permitted to work on all electrical components of a multi-family dwelling unit building that does not contain non-residential occupancies, including service and common area branch circuit loads as defined in National Electrical Code (NEC) Article 210.25?

Yes, but limited to structures of not more than 3 stories above grade

- 3. Is an LR licensee permitted to work in dwelling units where the building is 4 or more stories above grade? *No*
- 4. Is an LR licensee permitted to work in dwelling units of a mixed-use building that has 3 stories or less, that also includes non-residential occupancies?

Yes, limited to dwelling unit feeder and branch circuits, including stairways and corridors, that exclusively serve dwelling units.

5. Is an LR licensee permitted to work on a residential PV system? On a commercial PV system? On a system over 25 kW which requires plan review?

An LR licensee is permitted to work on PV systems installed on dwellings not more than 3 stories above grade, without limitation.

**Contact:** Keith Anderson

**Electrical Program Chief** 

503-378-4459

william.k.anderson@oregon.gov



Agenda Item VII.D.

State of Oregon Board memo

#### **Building Codes Division**

May 27, 2021

**To:** Electrical and Elevator Board

From: Tyler Glaze, policy analyst, Policy and Technical Services

**Subject:** SB 338 Rule Changes

#### **Action requested:**

• Implement the board's rulemaking authority to enact the recently passed SB 338.

#### **Background:**

SB 338 recently passed the Oregon legislature. A copy of the enrolled bill is included in the board packet. Now that the bill has passed the legislature, it is awaiting the Governor's signature.

The bill modifies the scope of work to the Limited Renewable Energy Technician (LRT) license. The bill increases the kilowatt limit of electrical installations on which the LRT can work, and allows the LRT to make AC electrical wiring and connections to the termination of the final factory-provided interconnecting cable on the exterior of a structure that extends a maximum distance of 10 feet from the renewable energy system, extends no more than three feet within an accessible space of a structure, and does not connect to the structure's wiring system.

In order to align the LRT license rules with the new scope of SB 338, Oregon Administrative Rules (OAR) 918-282-0033 and 918-282-0400 must be amended. ORS 455.117(2)(d) states that the Electrical and Elevator Board has rulemaking authority over all electrical licenses, including the LRT license.

The division requests the Electrical and Elevator Board allow the division to engage in rulemaking to amend OAR 918-282-0033 and 918-282-0400, to bring these rules in line with the newly enacted requirements of SB 338. The proposed rule changes are included in the board packet. Adoption of these rules will be contingent on approval of SB 338 by the Governor.

# **Options:**

- Approve the proposed amendments to OAR 918-282-0033 and 918-282-0400, and forward to the Administrator for rulemaking and subsequent adoption.
- Amend and approve the proposed amendments to OAR 918-282-0033 and 918-282-0400, and forward to the Administrator for rulemaking and subsequent adoption.
- Disapprove the proposed amendments to OAR 918-282-0033 and 918-282-0400.

#### SB 338 LRT Rule Changes DRAFT

#### 5/11/2021

#### 918-282-0033

#### **Limited Renewable Energy Contractor**

In addition to the requirements of OAR 918-282-0000, a limited renewable energy contractor:

- (1) Engages in the business of or makes the limited types of electrical installations limited to 25 kva-50 KW AC, calculated as the sum of the manufacturer's rated capacity of the AC side of the inverters connected to the generating equipment, and 600 volts nominal or less, specified in ORS 479.630(16);
- (2) Continuously employs at least one general supervising electrician, general journeyman electrician or limited renewable energy technician to act as signing supervising electrician to:
- (a) Obtain and sign permits; and
- (b) Supervise the electrical installations authorized by ORS 479.630(16).

Statutory/Other Authority: ORS 479.630

Statutes/Other Implemented: ORS 479.630

#### 918-282-0400

#### **Solar Licensing**

The purpose of this rule is to clarify the scope of work for solar installations. It does not affect the scope of licenses established in ORS 479.630.

- (1) For the purposes of this rule the following definitions apply:
- (a) "Building Integrated" means photovoltaic (PV) cells, devices, modules, or modular materials that are integrated into the outer surface or structure of a building and serve as the outer protective surface of that building or structure, such as the roof, skylights, windows or facades.
- (b) "Module" means a complete, environmentally protected unit consisting of solar cells, optics, and other components, exclusive of tracker, designed to generate dc power when exposed to sunlight.
- (c) "Racking" means the material, supports, attachment, frame, skeleton used to attach a solar system or module to a building, structure, or ground mounting.
- (d) "Rack mounted PV module" means a PV module that is attached to racking.
- (2) Persons placing or installing structural elements, including footings, roofs, carports, racking, and building integrated PV modules are not required to possess an electrical license.

(3) The total generating capacity of a PV system, measured in KW AC, is determined by calculating the sum of the manufacturer's rated capacity of the AC side of the inverters connected to the solar panels.

(4)(3) The following licensing requirements apply to PV system installations:

(a) For PV systems not exceeding 25 50 KW AC a Limited Renewable Energy Technician, General Journeyman Electrician, General Supervising Electrician or Limited Residential Electrician license is required to perform the following:

(A) Installation or attachment of PV modules to racking.

(B) Making electrical connections between modules, including installation of all conductors that connect to and/or interconnect all PV modules regardless of the type of electrical connection including plug-type interconnections.

(C) Making electrical connections to combiner boxes and inverter(s), including installation of all conductors between arrays and combiner boxes, up to the load side of the inverter.

(D) All elements of system grounding utilizing wire-type conductors on the DC side of the inverter.

(E) Making AC electrical wiring and connections to the termination of the final factory-provided interconnecting cable on the exterior of a structure that extends a maximum distance of 10 feet from the renewable energy system, and extends no more than three feet within an accessible space of a structure, and does not connect to the structure's wiring system.

(b) For PV systems exceeding  $\frac{25}{50}$  KW  $\underline{AC}$  a General Journeyman Electrician, General Supervising Electrician or  $\underline{a}$  Limited Residential Electrician  $\underline{working}$  within the scope of their license is required to perform the following:

(A) Installation or attachment of PV modules to racking.

(B) Making electrical connections between modules, including installation of all conductors that connect to and/or interconnect all PV modules regardless of the type of electrical connection including plug-type interconnections.

(C) Making electrical connections to combiner boxes and inverter(s), including installation of all conductors between arrays and combiner boxes, up to the load side of the inverter.

(D) All elements of system grounding utilizing wire-type conductors.

(E) Electrical connections to building electrical system including all AC connections on the line side of the inverter(s).

Statutory/Other Authority: ORS 455.117 & 479.730

Statutes/Other Implemented: ORS 479.630 & 479.730

# Enrolled Senate Bill 338

Sponsored by Senator GOLDEN, Representative MARSH; Representative GRAYBER (Presession filed.)

CHAPTER	
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#### AN ACT

Relating to the limited renewable energy technician license; amending ORS 479.630; and declaring an emergency.

#### Be It Enacted by the People of the State of Oregon:

#### **SECTION 1.** ORS 479.630 is amended to read:

479.630. If [the] a person pays the applicable application fee required under ORS 479.840 and complies with ORS 479.510 to 479.945 and the rules adopted under ORS 455.117 and 479.510 to 479.945, the Department of Consumer and Business Services shall issue:

- (1) An electrical contractor's license to a person engaging in or carrying on a business of making electrical installations.
  - (2) A general supervising electrician's license to a person who:
- (a) Passes a written examination prepared by the Electrical and Elevator Board and administered by the department; and
- (b) Submits proof satisfactory to the board that the person has had at least four years of experience as a general journeyman electrician or its equivalent, as determined by the board by rule, in installing, maintaining and repairing electrical wires and equipment.
- (3) A limited supervising electrician's license to a person who qualifies under this subsection. A person licensed under this subsection is authorized to supervise the class of electrical work included in the branch of the electrical trade and for which the person has passed the examination administered by the department. A person qualifies under this subsection if the person:
  - (a) Passes a written examination prepared by the board and administered by the department; and
- (b) Submits proof satisfactory to the board that the person has had at least four years of specialized experience in a recognized branch of the electrical trade on the journeyman level.
  - (4) A general journeyman electrician's license to a person who:
  - (a) Passes a written examination prepared by the board and administered by the department; and
  - (b) Submits proof satisfactory to the board that:
- (A) The person has had at least four years of general experience as an apprentice or its equivalent, as determined by the board by rule, in installing, maintaining and repairing electrical wires and equipment, including not fewer than 1,000 hours in wiring on single or multifamily dwelling units; or
- (B) If the person is licensed as a limited residential electrician under subsection (14) of this section, subsequent to receiving that license, the person has worked for at least two years as a limited residential electrician and subsequent to those two years has completed an additional two years' experience as an apprentice or its equivalent, as determined by the board by rule, for that

period of apprenticeship time worked exclusively in installing, maintaining and repairing electrical wires and equipment in the commercial and industrial branches of the electrical trade under the supervision of a licensed electrical contractor.

- (5) A limited journeyman electrician's license to a person who qualifies under this subsection. A person licensed under this subsection is authorized to perform the class of electrical work included in the branch of the electrical trade for which the person has passed the examination administered by the department. A person qualifies under this subsection if the person:
- (a) Passes a written examination prepared by the board and administered by the department; and (b)(A) Except as provided in subparagraph (B) of this paragraph, submits proof satisfactory to the board that the person has had at least four years of specialized experience as an apprentice or its equivalent, as determined by the board by rule, in a recognized branch of the electrical trade; or
- (B) If applying for licensing as a limited journeyman sign electrician or limited journeyman stage electrician, submits proof satisfactory to the board that the person has had at least two years of specialized experience as an apprentice or its equivalent, as determined by the board by rule, in the sign or stage branch of the electrical trade.
- (6) A limited elevator journeyman license to a person who qualifies under this subsection. A person licensed under this subsection is authorized to install, maintain and repair elevators, including all electrical and mechanical systems. A person qualifies under this subsection if the person has completed an elevator apprenticeship program, including both electrical and mechanical training components, approved by the board by rule and the person submits an application for licensure to the board in writing. A person issued a license under this subsection is exempt from continuing education requirements established under ORS 455.117 and 479.680.
- (7) An electrical apprentice's license to a person who has complied with ORS 660.002 to 660.210 as an electrical apprentice.
- (8) An electrical apprentice's license to a trainee toward a limited residential electrician's license who has complied with ORS 660.002 to 660.210 as an electrical apprentice.
- (9) An electrical apprentice's license to a trainee toward a limited journeyman's license in a recognized branch of the electrical trade who is employed by an employer who also:
- (a) Employs a holder of either a general journeyman electrician's license or a limited journeyman electrician's license; and
- (b) Conducts an electrical training program in a recognized branch of the electrical trade approved by the board as being a training program that will adequately prepare the trainee for the limited journeyman's license.
- (10) A limited maintenance electrician's license to a person who qualifies under this subsection. A person licensed under this subsection is authorized to maintain, repair and replace electrical installations, including electrical components, required on the premises of industrial plants, and maintain, repair and replace electrical installations on systems that are less than 600 volts phase to phase, including electrical components, required on the premises of commercial office buildings, buildings occupied by the state or a local government entity or facilities designated by the board. The following apply to this subsection:
  - (a) A person qualifies under this subsection if the person:
- (A) Passes a written examination prepared by the board and administered by the department on repair, replacement and maintenance of equipment of the type and nature normally used in an industrial plant, commercial office building or government building and on the use of testing equipment; and
- (B)(i) Completes a two-year training program approved by the board that provides for training and supervision of the trainee or apprentice; or
- (ii) Submits proof satisfactory to the board that the person has had sufficient experience and related educational training in the repair, replacement and maintenance of electrical wiring and equipment of the type and nature used in an industrial plant, commercial office building or govern-

ment building, as determined by the board or by an appropriate local apprenticeship committee recognized by the State Apprenticeship and Training Council.

- (b) An annual inspection of the premises upon which electrical work is performed by persons licensed under this subsection [shall] **must** be made by the electrical inspector for an annual fee determined by the board by rule, based upon the time required for the inspection, payable to the department.
- (c) A person licensed under this subsection may be employed directly by the owner, or owner's agent, of any government building or commercial office building. A building owner or owner's agent need not be licensed under this section to supervise a limited maintenance electrician.
- (d) The department, in consultation with the board, shall adopt rules defining government buildings and commercial office buildings subject to this subsection.
- (11) A limited building maintenance electrician's license to a person who qualifies under this subsection. The following apply to this subsection:
- (a) A person licensed under this subsection is authorized to maintain, repair and replace the following electrical installations required on the premises of commercial office buildings, buildings occupied by the state or a local government entity or facilities designated by the board in electrical systems not exceeding 300 volts to ground:
  - (A) Electrical appliances;
  - (B) Light switches;
  - (C) Light fixtures;
  - (D) Fans;
  - (E) Receptacles; and
  - (F) Fluorescent ballasts.
  - (b) A person qualifies under this subsection if the person:
- (A) Passes a written examination prepared by the board and administered by the department on maintenance, repair and replacement of equipment of the type and nature normally used in a commercial office building or government building and on the use of testing equipment; and
  - (B) Submits proof satisfactory to the board that the person has:
- (i) Had sufficient experience in the maintenance, repair and replacement of electrical wiring and equipment of the type and nature normally used in a commercial office building or government building; or
- (ii) Completed a one-year training course, with classroom and on-the-job training components approved by the board, on the maintenance, repair and replacement of electrical wiring and equipment of the type and nature normally used in a commercial office building or government building.
- (c) An annual inspection of the premises upon which electrical work is performed by persons licensed under this subsection [shall] **must** be made by the electrical inspector for an annual fee determined by the board by rule, based upon the time required for the inspection, payable to the department, or the inspection [shall] **must** be performed under an electrical master permit program.
- (d) Building owners may perform work regulated by this subsection and for which a license is required under this subsection without obtaining a license.
- (e) A person who owns more than 50 percent of a corporation that controls a building is a building owner.
- (f) A person licensed under this subsection may be employed by the owner of a commercial office building or the owner's agent. A building owner or owner's agent need not be licensed under this section to supervise a limited building maintenance electrician.
- (12) A limited maintenance specialty contractor license to a person who qualifies under this subsection. A person licensed under this subsection is authorized to engage in the electrical work related to the repair, service, maintenance, installation or replacement of existing, built-in or permanently connected appliances, fluorescent ballasts or similar equipment and to employ individuals to engage in that work. This subsection does not authorize the installation of appliances, ballasts or other equipment if there is no existing installation of similar equipment. A person qualifies under this subsection if the person:

- (a) Submits proof satisfactory to the board that the person has had sufficient experience in the type of work permitted under the license issued under this subsection; and
- (b) Maintains with the board a current list of all individuals employed by the person to engage in work permitted under this subsection.
- (13) A limited pump installation specialty contractor license to a person who qualifies under this subsection. A person licensed under this subsection is authorized to engage in electrical work related to the testing, repair, service, maintenance, installation or replacement of new or existing pump equipment for potable or irrigation water systems, sump pumps, effluent pumps and ground water pumps on residential and agricultural property and to employ individuals to engage in such work. A person qualifies under this subsection if the person:
- (a) Submits proof satisfactory to the board that the person has had sufficient experience in the type of work permitted under the license issued under this subsection; and
- (b) Maintains with the board a current list of all individuals employed by the person to engage in work permitted under this subsection.
- (14) A limited residential electrician's license to a person who qualifies under this subsection. A person licensed under this subsection is authorized to perform the class of electrical work included in the branch of the electrical trade for which the person has passed the examination administered by the department and approved by the board. However, a person licensed under this subsection shall perform the electrical work allowed by the license only on single and multifamily dwelling units not exceeding three floors above grade. For purposes of this subsection, the first floor of a building is the floor that is designed for human habitation and that has 50 percent or more of its perimeter level with or above finished grade of the exterior wall line. A person qualifies under this subsection if the person:
- (a) Has received the same number of hours of electrical safety training as required by rule for an electrical apprentice or its equivalent and has received training in electrical theory;
- (b) Submits documented proof to the board of at least two years of apprenticeship or trainee experience in residential wiring of single and multifamily dwelling units or its equivalent, as determined by the board by rule; and
  - (c) Passes a written examination prepared by the board and administered by the department.
  - (15) A limited renewable energy contractor license to a person who:
  - (a) Employs at least one full-time renewable energy technician; and
- (b) Does not engage in electrical work other than work that may be performed by a limited renewable energy technician. A limited renewable energy contractor may not make, direct, supervise or control the making of an electrical installation unless the contractor is licensed for that activity.
- (16) A limited renewable energy technician license to a person who qualifies under this subsection. A person qualifies for licensing as a limited renewable energy technician if the person completes a two-year apprenticeship program and passes an examination approved by the board. A person licensed under this subsection may, while in the employ of a licensed electrical contractor or a limited renewable energy contractor:
- [(a) Install, maintain, replace or repair electrical wiring and electrical products that convey or operate on renewable electrical energy not exceeding 25 kilowatts AC; and]
  - [(b) Make electrical installations not exceeding 25 kilowatts AC:]
- [(A) On devices using renewable energy involving wind, solar energy systems, microhydroelectricity, photovoltaic systems or fuel cells.]
  - [(B) Up to the load side of an inverter.]
  - [(C) To connect generators that are sized to facilitate the inverter in an off-grid system.]
- (a) Install, maintain, replace or repair electrical wiring and electrical products that convey energy from or operate on renewable electrical energy generation systems that use wind, solar energy systems, microhydroelectricity, photovoltaic systems or fuel cells that do not exceed 50 kilowatts AC, as measured by the sum of the manufacturer's rated generating capacity; and

- (b) Make the following connections on renewable energy generation systems described in paragraph (a) of this subsection:
  - (A) All DC wiring and DC connections up to the load side of an inverter;
- (B) All AC wiring and AC connections to the termination of the final factory-provided interconnecting cable that are made on the exterior of a structure, extending a maximum distance of 10 feet from the renewable energy system, or a longer distance that the board specifies by rule, and extending not more than three feet within an accessible space of a structure, but not including connection to the structure's wiring system; and
- (C) Connections to generators that are sized to facilitate the inverter in an off-grid system.

SECTION 2. This 2021 Act being necessary for the immediate preservation of the public peace, health and safety, an emergency is declared to exist, and this 2021 Act takes effect on its passage.

Passed by Senate March 11, 2021	Received by Governor:
	, 2021
Lori L. Brocker, Secretary of Senate	Approved:
	, 2021
Peter Courtney, President of Senate	
Passed by House May 10, 2021	Kate Brown, Governor
	Filed in Office of Secretary of State:
Tina Kotek, Speaker of House	, 2021
	Shemia Fagan, Secretary of State