

ELECTRICAL CURRENTS

A Newsletter from the Office of L&I Chief Electrical Inspector Wayne Molesworth

April 2022

Question of the Month — What is the best method to communicate access instructions to your electrical inspector?

- A) Call the inspector the morning of the inspection.
- B) Email the inspector.
- C) Leave a voicemail message at the inspector's desk phone.
- D) Leave details in the comment field of an online inspection

Legislative Update

2018's [SSB 6126](#) established apprenticeship completion requirements for all 01 general electrician exam candidates applying after July 1, 2023. After that date, unless previously approved, no one qualifies for 01 general electrician exam unless they have completed a Washington 49.04 apprenticeship or equivalent apprenticeship in another state.

This requirement is not affected by failure of this session's housekeeping bill [SB 5599](#). The failed bill provided additional paths to exam eligibility for out of state applicants and people with military experience as well as assure that more OJT experience could count toward apprenticeship completion for current trainees.

Further Delay Announced - Requirements for Metering Centers and Power Outlets

Another delay is necessary due to unprecedented affects of the pandemic on manufacturing. The delay allows manufacturers the time they need to produce products that do not have more than one service disconnect in an enclosure.

- For metering centers having two to six service disconnects in the same enclosure, we are delaying enforcement of NEC 230.71(B)(4) until January 1, 2023. Because of this, the exception to 2017 NEC 408.3(A)(2) supersedes 2020 NEC 230.62(C) until that date.

For permits purchased after January 1, 2023, metering center service disconnects must be in separate compartments and comply with NEC 230.71(B)(4) and 2020 NEC 230.62(C).

- For power outlets certified to UL 231, an indefinite delay applies to enforcement of 2020 NEC 230.71(B)(4) requirements. Because of this, the exception to 2017 NEC 408.3(A)(2) supersedes 2020 NEC 230.62(C). Some of the common uses of power outlets are service equipment for recreational vehicles and temporary power on construction sites.

Ugly Picture of the Month: *If viewing this document online, Click on the picture to open a larger image.* An electrical inspector found this installation by a property owner.

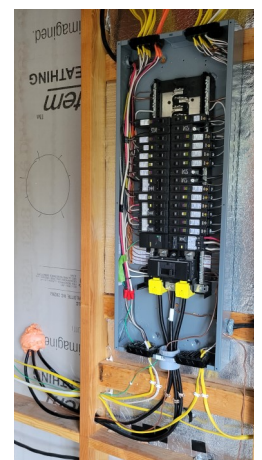
The owner told the inspector he "watched a lot of videos" to figure out what to do. There is no substitute for a well trained electrician. How many code violations do you see?

Safety Tip of the Month

The amount of electricity required to harm a person is very small. According to the OSHA publication [Controlling Electrical Hazards](#), 50 to 150 milliamperes of electricity will cause

- Extreme pain
- Respiratory arrest
- Severe muscular contractions
- Possible death

Use extreme caution, follow all safety procedures, and use required personal protective equipment while working on or near energized circuits.



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No More Temporary Allowances for Trainee In-class Education or Late Renewal

We announced the end date for temporary allowances for trainees. In the November 2021 edition of this newsletter. On or after April 1, 2022:

- Education providers must cease virtual delivery of basic classroom instruction classes for trainees. All instruction must be in person.
- To continue to lawfully work as a trainee if expiring on or after April 1, 2022, trainees must complete 48 hours of basic classroom instruction and renew before their expiration date.
- Trainees expiring before April 1, 2022 may continue to work legally for 90 days from the date their certificate expires. Such trainees must complete 48 hours of basic classroom instruction and renew no later than 90 days after their expiration date.

WAC Rules Updated — Effective April 1

For a year we have been updating WAC 296-46B-995 *Electrical Board—Appeal Rights and Hearings*. L&I accepted a rulemaking petition requesting the rule changes. The rules governing appeals and the appeal process before the Electrical Board were confusing and out of date. We have adopted changes that clarify, simplify, and make the procedure for appeals to the board easier to understand and navigate. The adopted rules include changes to:

- Procedural requirements for the electrical board.
- Appeal and hearing requirements
- Cleaning up of the language such as punctuation, typographical and reference corrections, formatting and removal of obsolete language.

The electrical program accepted public comments and held a public hearing on January 6, 2022. We filed a CR-103 rulemaking order to adopt the rules on March 1, 2022. The new rules will take effect on April 1, 2022. You can view or download the rulemaking documents including a copy of the revised rule language by visiting the [Electrical Laws and Rules](#) web page.

When is a Building Weatherproof Enough To Install Dry Location Wiring and Equipment?

Neither the National Electrical Code® nor Part A of the electrical rules in WAC [296-46B](#) require a specific level of building completion before wiring and equipment installation may begin. The Code does recognize that a normally dry location may be subject to dampness or wetness while a building is under construction. However, this does not allow Type NM and other cables and equipment not rated for wet locations to be subjected to water damage during the construction process.

The minimum requirements for a building to be considered dry are when the wall and roof sheathing are installed and the roof is completely covered by a waterproof membrane such as roofing felt. Flat roofs must be watertight. If wind driven rain is likely, contractors would be wise to cover the rough openings or have windows in place before wiring or installing equipment. If dry location wiring or equipment gets wet by any method, the inspector may require wiring or equipment to be replaced prior to approval as described in [WAC 296-46B-110\(2\)](#) and the National Electrical Manufacturer's Association's (NEMA's) *Evaluating Water-Damaged Electrical* publication.

NEMA's *Evaluating Water-Damaged Electrical Equipment* is available for download at no charge at www.nema.org/stds/water-damaged.cfm. It provides advice on the safe handling of electrical equipment and wiring that has been exposed to water. These guidelines must be treated as manufacturer's installation instructions.

Answer to Question of the Month: D) Leave details in the comment field of your [online inspection request](#).

Inspectors start their day from the field and download inspection requests remotely. Your comments save everybody time when you provide instructions so your inspector can get in without making phone calls for access just let the inspector know how to get in—Key is under a rock by the..., garage code is..., furnace is in the crawlspace..., the dog is friendly, watch out for the cat!..., etc. Having to make phone calls reduces our time to complete inspections. Help us help you by making inspection arrangements in advance to reduce the number of inspector phone calls.

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