

Question of the Month – When is a disconnecting means not required within sight of the indoor unit of a split-system heating, ventilation, air-conditioning, and refrigeration (HVAC/R) system? *See correct answer on Page 2.*

Plan Ahead – No Electrical Inspections on November 14 and 15

The department will be holding a two day training for all L&I inspectors. We regret the inconvenience this causes, but we have found that a statewide approach improves consistency and is the most efficient use of our training budget. Please let your customers know and plan for your inspections accordingly.

Proposed Changes to Sign and Residential Specialty Scopes of Work

The department has received two petitions from stakeholders to modify the (04) Sign and (02) Residential specialty worksopes. The (04) Sign specialty petition seeks to include energy efficient retrofitting of exterior luminaires that are mounted on a pole or other structure. Current language allows the sign specialty to service, maintain, or repair these luminaires with like-in-kind components, which prohibits modifications such as LED retrofits. The (02) Residential specialty petition seeks to allow residential specialty contractors and electricians to perform wiring in multi-family residential buildings based on the type of construction and the allowance in the NEC® for non-metallic sheathed cable in multi-family buildings. Currently, residential specialty electricians are limited to multi-family buildings not exceeding three stories above grade.

The formal rulemaking process is underway to consider input from all stakeholders regarding these issues. A draft of the proposed rule language is posted on the [Rule Development](#) page of our website. A special stakeholder meeting was held September 26 in Tacoma, and the proposal was presented to the [Electrical Board](#) at their October 26 meeting in Spokane. The board recommended the department proceed with adoption of the proposed language changes. The next step will be filing of the CR-102 document (tentatively scheduled for November 21, 2017) which will give stakeholders instructions about how to provide comments and announce a public hearing, scheduled for January 3, 2018 in Tumwater, WA.

For the latest developments on this and other rulemaking, watch for future announcements in this newsletter and the Rule Development page.

Electricians and Arc-Flash – Working on Energized Service Drops

Question: Is an electrician permitted to disconnect and/or reconnect a secondary service drop on the utility's side of the meter? The short answer is no - only individuals who meet the training and experience requirements in [WAC 296-45](#), Electric Power Generation, Transmission, and Distribution, are considered to be "qualified electrical employees" and able to work on or with exposed energized lines or parts of equipment operating at 50 volts or more.

The training that qualified electrical employees must have according to WAC 296-45 will include training necessary to work on energized primary and secondary conductors that are not typically protected by overcurrent devices. This qualifies the employee to take a clearance (i.e., receive authorization to work) on the lines or equipment to control the energy source when necessary. The training that Washington certified electricians receive may not be focused towards working on energized lines and equipment, except for testing and certain conditions where it is infeasible to de-energize.

L&I's Division of Occupational Safety and Health (DOSH) regulates workplace safety rules. Information on electrical safety-related work practices can be found in the General Safety and Health Standards, [WAC 296-24-965](#) and [NFPA 70E](#). These

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Safety Tip of the Month



Don't take unnecessary risks with your safety! Arc-flash burns and other serious injuries can occur when working along energized service drops or other exposed electrical conductors.

practices will give guidance to employers on allowing qualified electricians to work on energized utilization systems under limited circumstances. Work practices found in [WAC 296-45-065](#) are applicable to work performed on the utility side of the metered demarcation line. You can download an informational bulletin regarding Electricians and Arc-Flash on the DOSH website at this [link](#). If you would like more information, contact Jeff Krausse, the DOSH Telecommunications and High Voltage Supervisor at (509) 764-6908 or krau235@lni.wa.gov.

The Work of Licensed Electrical Contractors Should be Free of Code Violations

RCW [19.28.361](#) makes the installer – contractor and electrician – personally responsible and liable for any injury or damage to a person or property for any defect in the electrical installation. The RCW goes on to say the inspector is not responsible for the safety of the installation.

Inspectors do not inspect each termination, piece of wire, wire connector, or other device or equipment. The inspector is not on the job to create a “punch list” of items that need repairing or witness testing required by the NEC or other codes (e.g. fire alarm testing, ground fault testing, etc.). However, the inspector may test the final installation of devices like receptacle polarity, ground-fault circuit-interrupters, and arc-fault protection devices.

The inspector’s job is to do a quick visual inspection to assure that the contractor and assigned administrator/master electrician has done the quality control work for their installations. The inspector is not expected to, and will not be able to find every correction in an electrical installation. To find every possible problem in an electrical installation would essentially require the inspector to personally perform the complete installation.

Inspectors and your customers expect every installation to be without significant safety problems – no corrections. Last year, over 220,000 inspections were made and only 19% of those had corrections written. Typically, only 20% of all electrical contractors caused 80% of all reinspections. Because the contractor failed to be responsible for the quality of their electricians’ work, corrections were issued which resulted in the need for a reinspection. All contractors, administrators, and electricians should do their part in reducing the number of corrections the inspector encounters. Your reduction of corrections will save everyone time and money.

When Must a Trainee Submit Experience Hours to the Department?

If not registered in a department-approved apprenticeship, affidavits of experience are eligible for consideration if received by the department no more than 180 days from the expiration date of the associated training certificate. The expiration date closest to the period claimed on the affidavit is the date used to determine eligibility.

Time is not your friend when it comes to justifying hours and types of experience – employers go out of business, supervising electricians and administrators move on. Too often, trainees end up with no one to vouch for their experience or records to support it. The law addresses this problem. RCW 19.28.161(2) requires training certificates to be renewed every two years. At the time of renewal, the holder of a training certificate is required by law to provide the department with an accurate list of the holder’s employers for the previous two-year period and the number of hours worked for each employer. Affidavit forms are available at: <http://www.lni.wa.gov/FormPub/default.asp>.

Ugly Picture: *If viewing this document online, click on the picture to open a larger image.* The aluminum meter ring in this picture was found inside a service panel that had been energized for approximately 20 years. If you look closely, the ring has been burned in two places where it contacted the enclosure cover and the back corner (see red circles). When opening any enclosure with energized wiring or parts inside, use extreme caution! Oh, and don’t do something like this!

Answer to Question of the Month: WAC 296-46B-440; In one and two-family dwelling units, a disconnecting means is required for the indoor unit(s) of a split system HVAC/R system, unless the outside unit’s disconnecting means is lockable, disconnects the indoor unit, and an indoor disconnecting means is not required by the manufacturer. This is an amendment to the general rule of NEC 440.14 which requires a disconnecting means within sight from and readily accessible from the air-conditioning and refrigerating equipment.



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