

Question of the Month

In Washington State, which option is an approved wiring method for a new installation of service conductors not exceeding 600 volts within a building or structure?

- A) EMT B) PVC schedule 40 C) MC Cable D) SE Cable

Note from the Chief

It is my pleasure to announce that Trent Harris has accepted the position as Electrical Technical Specialist. Trent is a certified ME01 Master Electrician with twenty-two years of diverse experience in the electrical industry. He came to the department in March of 2005 as an electrical construction inspector. He has also worked as an industrial relations agent with prevailing wage, and most recently as an electrical plans examiner. Trent has been in a temporary assignment as an electrical technical specialist since January. Trent demonstrates a very high level of professionalism, technical expertise, and communication skills, which will serve to help him succeed as a technical specialist.

In addition, we had to say goodbye to Brandi O'Shurak, my administrative assistant, who left the department to pursue an adventurous career in the private sector. Brandi had been with L&I since 1999 and will be greatly missed. I have temporarily appointed Megan Eriksen as my administrative assistant. Megan has been in the electrical licensing department and is doing an excellent job in her new position.

Reciprocity with Other States

In January of 2009, the Electrical Board weighed the pros and cons of reciprocity and temporary certification and made a nearly unanimous recommendation to withdraw from all reciprocal agreements. The board felt having all electrician candidates take the Washington exams would help ensure that the candidate has up to date knowledge of the electrical code and Washington's laws and rules. After the recommendation, L&I stopped issuing temporary electrician certificates and notified reciprocal states, we will no longer honor requests for electrician certification reciprocity. Over the years, L&I has removed most of the obstacles to obtaining electrical certification that existed when reciprocity began in the early 1990s. It used to take months to get an electrician certification in Washington when coming from out of state.

It is now much easier for a qualified candidate to obtain their certificate, even before moving to Washington. Taking the Washington exam requires some investment from the candidate. It takes a few hours of time, the exam fee, and as of July 1, 2013 the newly required in class education discussed in last month's newsletter. Exams are available worldwide through our exam administrator, PSI. PSI offers exams five days per week with immediate results and the ability to immediately schedule a follow-up exam if necessary. Certificates are generally issued within three days of examination completion.

Safety Tip of the Month!

With summer quickly approaching and all the fun activities involving water to keep cool, protect yourself, family, and friends. Please remember a Ground Fault Circuit Interrupter should be used in any area where water may come in contact with electrical products. If a GFCI senses a minimal current leakage through water to ground in an electrical circuit, it assumes a ground fault has occurred. It then interrupts power fast enough to prevent serious injury from electrical shock.

Increase in Hours of Basic Trainee Classes – 48 Hours Effective July 1, 2013

House Bill 2546 passed in 2010 raising the requirements for classroom training for trainees in [RCW 19.28.161](#). The additional educational requirements will improve the trainees' educational process and knowledge, helping them to become better electricians. Effective July 1, 2013 electrical trainees must complete 48 hours of approved basic trainee classes to renew or reactivate their training certificate, raising the requirement from 32 hours to 48 hours. This means for a trainee card to be renewed or reactivated on or after July 1, 2013 the trainee will be required to have 48 hours of basic trainee classes, regardless of when the renewal fee was paid. If your certificate is renewed and all class hours are properly reported before July 1, 2013, 32 hours are required. Beginning July 1, 2013, 48 hours are required for your certificate to be renewed or reactivated. Contact Electrical Licensing at 360-902-5269, if you have any questions regarding this information.

Heat Pump Water Heaters

Household heat pump water heaters are considered "household appliances" as defined in [WAC 296-46B-100](#). A heat pump water heater is not a heat pump; it is an electric water heater that happens to employ heat pump technology and resistive heating elements...Article 440 does not apply when installing a heat pump water heater. Replacing a standard electric water heater with a heat pump water heater may be considered like-in-kind if it meets the definition. "Like-in-kind" means having the same overcurrent protection requirements and similar characteristics such as voltage requirement, current draw, short circuit characteristics, and function within the system and being in the same location. Replacing a conventional electric water heater with a heat pump water heater could likely be exempt from electrical permit and inspection requirements because a heat pump water heater qualifies as a household appliance as described in [WAC 296-46B-901\(7\)\(b\)](#).

Heat pump water heaters are not within the scope of the HVAC/refrigeration specialties, because "HVAC/refrigeration system" is defined in [WAC 296-46B-100](#) as *...a system of HVAC/refrigeration: Wiring, equipment, and components integrated to generate, deliver, or control heated, cooled, filtered, refrigerated, or conditioned air.*

If not the owner of the property owner, the entity offering to make such a replacement must be a properly licensed electrical contractor employing properly certified electricians or a properly registered construction contractor employing properly certified plumbers as described in [RCW 19.28.091\(8\)](#). Plumbers may not alter a circuit (e.g. change the overcurrent protection, extend the circuit, etc.) and are limited to disconnecting and reconnecting an existing circuit.

Potential Rulemaking – Expansion of Maintenance Specialty to Include Load Bank Connection

The Department filed a CR 101 pre-proposal statement of inquiry with the Office of the Code Reviser on May 21, 2013 in anticipation of the possibility of a rule change proposal from the generator maintenance industry to expand the allowed work scope of 07 nonresidential maintenance specialty electricians. This potential rulemaking could amend or add new language in [WAC 296-46B 920](#) to allow the 07 nonresidential maintenance specialty the ability to connect load banks and their associated cables.

Currently, [WAC 296-46B 920](#) requires that a 01 general electrical contractor employing 01-general journey level electricians perform new electrical work of this nature.

Visit the electrical program [Rule Development](#) page on a regular basis to stay apprised of new developments in this process.

Ugly Installations Online readers - click on the picture to open larger images.

Violation: NEC 225.26 or NEC 230.30 Vegetation such as trees shall not be used for support of overhead feeder or service conductors; NEC 250.53(G) Ground rods are to be driven or buried with top at or below grade, others too numerous to list.

Answer to Question of the Month: [WAC 296-46B-230\(7\)\(B\)](#) PVC Schedule 40

Note: Some utilities may have more stringent requirements than L&I, always consult the serving utility before installing service equipment.



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<http://www.ElectricalCurrents.lni.wa.gov>

Electrical Section Internet Address: <http://www.ElectricalProgram.Lni.wa.gov/>

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