

The Question of the Month

When does 2014 National Electrical Code become effective?

Note from the Rod Mutch

After much careful consideration, I have made the decision to step down as chief electrical inspector effective June 1, 2014. This decision was made in consideration of personal and family reasons related to my living in Yakima and working in Tumwater. I will remain with the department and will be working in the Yakima L&I office. I have enjoyed my tenure as chief and am grateful for the support of the department, inspectors, supervisors, and electrical program stakeholders. The electrical program is in a strong position with many capable leaders. In the interim, until a permanent chief electrical inspector is appointed, Larry Vance has agreed to serve as interim chief. Larry has been working as an electrical technical specialist in the electrical program from November 2007 to the present with brief periods where he served as the electrical inspection field supervisor in Tacoma and interim electrical program manager and chief electrical inspector. Prior to becoming an electrical technical specialist, Larry was an electrical field inspector from 2004 through 2007. He has eighteen years of electrical experience in the private sector electrical construction industry. Based on Larry's knowledge and experience, I believe he is the best choice for this interim appointment. Please join me in welcoming Larry to his new position.

Safety Tip of the Month!

Protect yourself, your family, and your investment – Make certain you hire a legitimate licensed electrical contractor who:

- Uses certified electricians and;
- Gets the work inspected.

Check your contractor's and electrician's status at:

<https://secure.lni.wa.gov/verify/>

Who Can Place Building Integrated Photovoltaic Systems?

WAC [296-46B-690](#)(5) states: The entity placing a building integrated cell, module, panel, or array is not subject to the requirements for electrical inspection, licensing, or certification so long as the work is limited to the placement and securing of the device and an electrical work permit has been previously obtained for the electrical work related to the equipment by an entity authorized to do that electrical work.

This rule became necessary because of the proliferation of materials that serve a dual function as photovoltaic components and building exterior finish materials such as roofing, siding, and windows. It does not allow non-electrical contractors and uncertified individuals to install PV system materials unless they meet the definition of building integrated and the requirements stated in WAC 296-46B-690. The definition of "building integrated" PV panels is from the National Electrical Code, and is defined in rule as follows: WAC 296-46B-690(1) Building integrated: means photovoltaic cells, modules, panels, or arrays that are integrated into the outer surface or structure of a building and serve as the outer protective surface of that building, such as the roof, skylights, windows, or facades.

In general, [RCW 19.28.041](#), [RCW 19.28.161](#), and [RCW 19.28.006](#) definitions of "Equipment" and "Electrical construction trade" require that all parts and components of solar photovoltaic (PV) systems be installed and maintained by properly licensed electrical contractors and certified electricians. Construction contractors who are not electrical contractors are not properly licensed to install solar photovoltaic (PV) panels except in very specific applications as described in WAC 296-46B-690. The allowance in WAC 296-46B-690(5) permits construction contractors and uncertified individuals to place only "building integrated" PV panels but all electrical work, including wiring installation, terminations, etc., necessary to complete the electrical installations must be completed by the entity that obtained the electrical work permit.

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WAC Rule Revision Update – Effective Date July 1, 2014

The proposed rule changes to [WAC 296-46B](#) were adopted on May 20, 2014 and will become effective on July 1, 2014. In addition to the changes to WAC 296-46B, the 2014 edition of the National Electrical Code (NFPA 70-2014) will also become effective July 1, 2014. Permits purchased prior to July 1, 2014 may conform to either the 2008 NEC or 2014 NEC. Permits purchased July 1 or after must comply with the 2014 NEC.

The 2014 rule making would not have been possible without the time and expertise of the many stakeholders who participated. Thank you to everyone that submitted rule proposals, the members of the technical advisory committee who reviewed all of the proposals and made recommendations, the Electrical Board, everyone who attended one of the 17 stakeholder meetings where proposed changes were discussed and those who submitted comments on the proposed rules.

NEC 210.64 New Requirement – Receptacles for Electrical Service Areas

2014 NEC 210.64, Electrical Service Areas, states “At least one 125-volt, single phase, 15- or 20-ampere rated receptacle outlet shall be installed within 15 m (50 ft) of the electrical service equipment”. The substantiation for this new requirement raised concern about cords used to power equipment used for testing and monitoring service equipment being routed down hallways, across rooms, and through doorways creating slip, trip and fall hazards. The electrical program understands the intent and therefore will only enforce the requirements of NEC 210.64 for indoor electrical service areas. If service equipment is located outdoors, the requirements of NEC 210.64 do not apply.

When Will Electrical Examinations be Based on the 2014 NEC?

Adopting a new version of the NEC usually causes a number of queries from training providers and exam candidates anxious about the timeline for updated examinations. Historically, basic code requirements and theory fundamentals do not change much with a new version of the NEC. We are planning to roll out updated examinations in the summer or fall of 2015. Until then, the examinations are based on the 2008 NEC. When the exam revision date is known, we will announce it in this newsletter. If you are not a subscriber, visit <http://www.lni.wa.gov/Main/Listservs/Electrical.asp> to join.

Limited Energy Workers Grandfathering Opportunity Begins June 12

Beginning June 12, 2014, eligible individuals who have unsupervised telecommunications experience can apply work experience towards eligibility for examination for an (06) limited energy systems certification. Please review [last month's newsletter](#) for eligibility requirements and the two methods that can be used to document your past work experience. If this applies to you, complete the [special affidavit form](#) - only available between June 12, 2014 and July 1, 2015 - and submit it as instructed on the form. Note: [WAC 296-46B-942](#) (8)(d) requires employers to provide the necessary documentation and the signed affidavit of experience to a worker within twenty days upon request.

Ugly Installation: Click on the picture to open larger image. Last month's picture was of a damaged section of NM-B cable with a nail shot through it. Submitted by the same L&I inspector, this month's picture is another serious condition caused by a sheathing or siding nail shot through the back of a panelboard into the bus. This caused a direct ground-fault that would have threatened life and property if the panel was energized. Fortunately, the inspector discovered it before approval was given to energize the panel. Last month we discussed [WAC 296-46B-010](#)(6), which requires the exterior sheathing nail inspection to be completed by the building code inspector prior to the electrical cover inspection. This is another good example to ask if modifying the rule to require siding to be completed before cover approval could reduce the chances of this occurring or help inspectors catch more of these hazards prior to them becoming a serious safety issue.



Answer to Question of the Month: July 1, 2014. If you have not already taken a 2014 NEC update course, consider taking one prior to the July 1 effective date. Visit our [Continuing Education](#) webpage for more information.

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