

## Question of the Month

When selecting overcurrent protection for conductors, at what overcurrent protective device (OCPD) ampacity rating is it not permitted to round up to the next higher standard rating?

## Note from the Chief

The National Fire Protection Association has adopted the 2014 National Electrical Code and it will be effective in Washington State beginning July 1, 2014. A read-only version is available now on the [NFPA](#) website. Continuing Education and Basic Trainee Course Providers may now begin applying for and offering 2014 NEC update classes. The department must approve all courses. [Continuing Education Information for Providers](#) and a list of approved [Continuing Education](#) and [Basic Classroom Instruction](#) courses is available on our website.

Be sure to read the recently published [August 2013 Special Edition Electrical Currents](#) newsletter for information about the upcoming WAC 296-46B revision process regarding the 2014 NEC.

I am sad to report to you that Dennis Patterson, former electrical inspection supervisor passed away at the age of 68 on August 16, 2013 in Mount Vernon. Dennis was the electrical inspection supervisor in the Mount Vernon area for 18 years until his retirement in 2011. Dennis will be greatly missed by all who knew him.

## Public Comment on Proposed Rule Change

The department is seeking public input regarding the proposed change to WAC 296-46B-920(2)(g). The proposed change adds the underlined text below to WAC 296-46B-920(2)(g).

Nonresidential Maintenance (07): Limited to maintenance, repair and replacement of like-in-kind existing electrical equipment and conductors. This specialty does not include maintenance activities in the residential dwellings defined in (a) of this subsection for the purpose of accumulating training experience toward qualification for the residential (02) specialty electrician examination.

- (i) This specialty includes the installation and connections of temporary conductors and equipment for the purpose of load testing, not to exceed 600 Volts.

This specialty may perform the work defined in (h), (i), (j), (k) and (l) of the subsection.

The department will hold a public hearing at the [L&I building](#), 7273 Linderson Way SW, Room S119, Tumwater, Washington 98501 on October 14, 2013 at 1 p.m. You may submit written comments until 5 p.m. October 14, 2013 to Alicia Curry, Post Office Box 44400 Olympia, WA 98504-4400, email to [Alicia.Curry@lni.wa.gov](mailto:Alicia.Curry@lni.wa.gov), or fax at -360-902-5292. You can stay current with all electrical rule making activity at our [Rule Development](#) page.

## Changing an Existing 3-wire Service into a 4-wire Sub-Panel & Existing 3-Wire Circuits

Occasionally, inspectors encounter an existing service panel that has been modified into a 4-wire sub-panel. This may cause the existing 3-wire range and clothes dryer circuits to be out of compliance with NEC 250.140. When a service panel is modified to a 4-wire sub-panel, any existing 3-wire range or clothes dryer circuits are no longer compliant with 250.140, exception and must be modified to meet code. Code does not allow running a 4-wire feeder and re-bonding the equipment grounding conductor to the neutral downstream of the newly created sub-panel.

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## Safety Tip of the Month!

While working in the vicinity of overhead power lines;

- Use a wooden or fiberglass ladder, keeping at least 10 feet away from power lines.
- Have a professional tree cutting service trim branches that might fall on electric wiring.
- Never touch anyone or anything in contact with a power line.
- Downed power lines may be live, stay a safe distance away.
- Report downed wires to authorities right away.

## Classified Sign Retrofit Kits - Revisited

Recently Subject UL879A was upgraded from an Outline of Investigation for LED Kits to the ANSI UL Standard for Safety for LED Sign and Sign Retrofit Kits. Now that there is a UL Standard for Sign Retrofit Kits to be evaluated to, qualified testing laboratories can certify and list these kits. In addition, the 2014 NEC will include a new "Retrofit Kit" definition and Article 600 will require retrofit kits, as defined in the Code to be listed, provided with field wiring installation instructions, and installed in conformance with the listing.

As of March 31, 2013, WAC 296-46B-600(5) was changed to state, "A new listing mark must be applied to the sign by the electrical contractor or a field evaluation label must be applied by an approved testing laboratory". With the new UL879A standard and the impending changes to the NEC, the department will no longer require a new listing mark or field evaluation for retrofitted signs using listed retrofit kits installed per instructions.

L&I will allow the use of UL Classified and other listed retrofit kits if all the following conditions are met:

The installer:

- Is an (01) general electrical contractor or (04) sign contractor using properly certified individuals or properly supervised trainees;
- Obtains an electrical permit and inspection;
- Follows all the manufacturer's instructions and codes;
- Makes a copy of the manufacturer's instructions and field wiring instructions available to the inspector during the inspection;
- Provides physical access to the inspector for all components of the retrofit;
- Applies a label, made of a background color contrasting to the listed product, in a location visible during servicing near the listed retrofit subassembly that states, *"This equipment contains a retrofit subassembly that may present a risk of electrical hazard. Replace parts only with same type and rating"*. The label's font must be Ariel size 16 bold. This label must be an "identification plate" as defined in WAC 296-46B-100. This label is in addition to any labeling required by the manufacturer's instructions or the UL Standard used to manufacture the retrofit kit; and
- Removes all parts of the replaced component(s) so that the new configuration is evident to the consumer (e.g. Remove the ballast and associated wiring when a LED listed retrofit kit is used to replace fluorescent ballast).



The listed retrofit kit is to be used to replace component(s) on or within a sign already listed or field evaluated by a qualified testing laboratory.

**Ugly Installations:** Do not establish a grounded conductor (i.e. neutral) termination point from your neighbor's service, even for a temporary repair. Any unbalanced currents between the two systems could create a difference of potential between the neutral conductor and ground; a serious safety hazard for anyone unfortunate enough to come in contact with this creative but dangerous installation.

**Answer to Question of the Month:** NEC 240.4 (B) Over 800 amps. When the rating of the OCPD is over eight hundred amps, the ampacity of the conductors must meet or exceed the rating of the OCPD.



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