

Question of the Month

A ground ring is an electrode encircling the building or structure, in direct contact with the earth, consisting of at least _____ of bare copper conductor not smaller than _____. The ground ring shall be buried at a depth below the earth's surface of not less than _____. See correct answer on page 2.

Note From The Assistant Director for Specialty Compliance Services

The process for filling the vacant Chief Electrical Inspector position is nearing conclusion. First and second round interviews have been completed. Electrical industry stakeholders were included on the interview panels. The department is committed to recruiting the best candidate for this important position, and an announcement will be made as soon as the position is filled. In the interim, Larry Vance, Electrical Technical Specialist, has been appointed as the Acting Chief Electrical Inspector.

Legislative Proposals for the 2013 Legislative Session

Legislators began introducing legislation January 14. So far, there are four bills are being considered that might affect the Electrical Program. If you are interested in these bills or other proposed legislation, you can find bill information at the legislative website: <http://apps.leg.wa.gov/billinfo/>

- Senate Bill 5189 relates to adding a new section to RCW 19.28, which would allow a person with a valid limited energy system electrician certificate or a valid telecommunications electrician certificate to obtain an endorsement from the department allowing the person to install, maintain, replace, or repair photovoltaic electrical systems. The scope of work under a photovoltaic electrical system endorsement would be limited to the installation, maintenance, replacement, and repair of photovoltaic electrical systems that generate a maximum of ninety volts and twenty-five kilowatts of power, and includes all electrical wiring and electrical equipment used to create or convey photovoltaic energy up to and including the inverter. Only proof of photovoltaic installer certification by the North American Board of Certified Energy Practitioners or an equivalent certification board would be required to qualify for the endorsement. You may view and comment on this bill by visiting the bill information page, [SB 5189 - 2013-14](#) on the Washington State Legislature's website. You may view a video of the bill reading and testimony before the Senate Committee on Commerce & Labor on [TVW](#). Scroll the video forward to the 1:19:00 point to hear testimony for this bill.
- Senate Bill 5077 relates to technical corrections to gender-based terms. This legislation would require replacement of the term "journeyman" where it exists in RCW 19.28 with the term "journey level." You may view and comment on this bill by visiting the bill information page, [SB 5077 - 2013-14](#).
- Senate Bill 5682 and companion House Bill 1760 relate to allowing a certified HVAC/refrigeration specialty electrician to perform electrical work that is incidentally, directly, and immediately appropriate to the like-in-kind replacement of a household appliance or other small household utilization equipment that requires limited electric power and limited waste and/or water connections. You may view and comment on these bills by visiting the bill information pages, [SB 5682 - 2013-14](#) and [HB 1760 - 2013-14](#).

Safety Tip of the Month!

Select tools designed for the intended and specific use purpose. Using a tool for something other than its intended purpose often damages the tool and could cause you pain, discomfort, or injury.

This legislation is not sponsored or promoted by L&I. You may contact your legislator to share your opinion about these bills by visiting the legislative website at <http://app.leg.wa.gov/DistrictFinder/>.

New Requirement for Concrete Encased Electrodes (Ufer Grounds)

Beginning March 1, in accordance with [WAC 296-46B-250\(2\)](#), except for mobile/manufactured homes, a concrete encased grounding electrode must be installed and used at each new building or structure that is built upon a permanent concrete foundation. If the concrete encased grounding electrode is not available for connections, a ground ring must be installed per NEC 250. The concrete encased electrode must comply with NEC 250.52(A)(3). Inspection of the electrode may be accomplished by the following methods:

- a) At the time of inspection of other work on the project, providing the concrete encased electrode is accessible for a visual inspection;
- b) At the time of the service inspection providing the installer has provided a method so the inspector can verify the continuity of the electrode conductor along its entire length (e.g. attaching a length of copper wire to one end of the electrode that reaches the location of the grounding electrode conductor that will enable the inspector to measure the resistance with a standard resistance tester). The concrete encased electrode does not have to be accessible for a visual inspection; or
- c) Other method when prior approval, on a jobsite basis, is given by the inspector. If a special inspection trip is required to inspect a grounding electrode conductor, a trip fee will be charged for that inspection in addition to the normal permit fee.

Fighting the Underground Economy

Operating outside the requirements for licensing, certification, and permitting is very tempting to some individuals and contractors working in today's economy. The underground economy and companies attempting to operate with an unfair competitive advantage take work away from legitimate contractors and individual electricians who take pride in their work and the electrical industry.

L&I is actively doing everything possible to reduce these impacts. Because of the efforts of our electrical inspectors, E-CORE, and audit teams, we have had another successful year working proactively with the industry and combating companies and individuals not playing by the rules. For the 2012 calendar year the electrical program issued 4,385 citations for unlicensed contracting, uncertified electricians, doing work with no permit, or a related issue. All these violations are considered a part of the underground economy.

No matter what you do, inspector, contractor, electrician, regulator, or citizen, we encourage you to do your part in reducing the negative effects of the people who choose to violate the electrical laws and compete unfairly and in many cases unsafely with the legitimate electrical industry. We welcome your referrals about this type of unfair and illegal activity. If you know or suspect this type of violation, we encourage you to notify your local L&I electrical inspection office or a member of our compliance investigative team. You can find contact numbers for our offices at the [Office Locator](#) page of our website. You can also visit the [Report Electrical Law Violations](#) page of our website for additional information and contact information for the E-CORE team.

Please do your part by helping provide a level competitive environment for legitimate contractors so they can provide safe electrical installations for their customers.

Ugly Installations

Online readers - click on the pictures to open larger images.

Violations: Citation for serious non-compliance. An installation that presents imminent danger of fire or life safety hazard. Possible suspension or revocation of license and or certificate. [WAC 296-46B-990](#)

Answer to Question of the Month: 6.0 m (20 ft.); 2 AWG; 750 mm (30 in.) NEC 250.52(A)(4), NEC 250.53(F)



This document may contain hyperlinks to internet web pages. To access this PDF document online, go to: <http://www.ElectricalCurrents.lni.wa.gov>

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

This document is available in alternative formats to accommodate persons with disabilities. For assistance, call 1-800-547-8367. (TDD/TTY users, please call 360-902-5797.) Labor & Industries is an Equal Opportunity employer.