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Question of the Month – What is the best method to communicate inspection request details to your electrical inspector? A) Call the inspector the morning of the inspection. B) Email the inspector. C) Leave a voicemail message at the inspector’s desk phone. D) Leave details in the comment field of an online inspection request. – See correct answer on page 2

Electrical Board Appointments

Governor Inslee recently made three appointments to the Electrical Board. They are:

- Don Baker – Electrical Contractor Seat (Western Washington)
- David Cornwall – Electrical Manufacturer Seat
- Bobby Gray – Electrical Contractor Seat (Eastern Washington)

The electrical board advises the department on all matters pertaining to the enforcement of Washington’s electrical laws and rules. The board consists of fifteen members representing a wide range of Washington’s electrical stakeholders. Meetings are held four times per year, on the last Thursday of January, April, July, and October. You can view minutes of past meetings and get information about upcoming meetings on the [Electrical Board](#) page of our website.

I would like to congratulate Don, Dave, and Bobby as well as the entire electrical board for their willingness to serve the citizens of Washington in this capacity.

Marinas and Boatyards – All Enclosures Must Be Corrosion Resistant

To ensure that electrical installations do not become a hazard due to corrosion, corrosion resistant enclosures are required in all commercial and residential facilities covered by 2014 NEC® Article 555, as amended by WAC [296-46B-555](#). The requirement for corrosion resistant enclosures is found in WAC 296-46B-555(5). You must use NEC® Table 110.28 when determining what enclosure types meet this requirement. Only those enclosure types described in the table, which provide a degree of protection from corrosive agents, are considered corrosion resistant enclosures. More information on enclosure ratings is available at <http://www.nema.org/Products/Documents/nema-enclosure-types.pdf>

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 working to reduce these impacts. Our electrical inspectors, E-CORE (Electrical Compliance, Outreach, Regulation, and Education), and audit teams work in conjunction with the industry by combating companies and individuals not playing by the rules. For the fiscal year which ended on June 30, 2015, the electrical program issued over 4,000 citations for unlicensed contracting, uncertified electricians, doing electrical work with no permit, or a related issue. The department and the electrical board considers all these violations 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 of, or suspect such activity, please notify us. Visit the [Office Locator](#) page of our website for contact information for a local L&I electrical inspection office. You can also visit the [Report Electrical Law Violations](#) page of our website for contact information for the E-CORE team.

Safety Tip of the Month

Test equipment allows you to know the energized status of electrical systems. Keep yours in good repair and check it often with a known source of power. Your life may depend on it.

Join us by helping provide a level competitive environment for legitimate contractors so they can provide safe electrical installations for their customers.

Proper Installation of Plate Electrodes

If you use a plate electrode, you must follow the installation requirements of the National Electrical Code®. NEC® 250.52 requires that each plate electrode have not less than 2 square feet of surface exposed to exterior soil. Most ground plates are 12" by 12" - exactly 2 square feet of surface area. If you are using a ground plate, all surfaces must be in contact with the soil. Plate electrodes shall be installed not less than 30 inches below the surface of the earth as required by NEC® 250.53. Plate electrodes must be visible during inspection. After approval, you are responsible for properly covering them. This means you must bury all of the plate at least 30 inches deep. Be sure to backfill all plate electrodes and direct buried service conductors before the service or feeder they are connected to is energized. In a case where the power company uses direct burial splices for the service conductors, you are responsible for properly covering the electrode(s) and service conductors immediately upon completion of the power company's work. When you install a service and leave exposed, energized service conductors or improperly covered plate electrodes, the installation presents a hazard of fire and/or a danger to life safety, a serious violation of the electrical laws, which could result in suspension of your license or certificate.

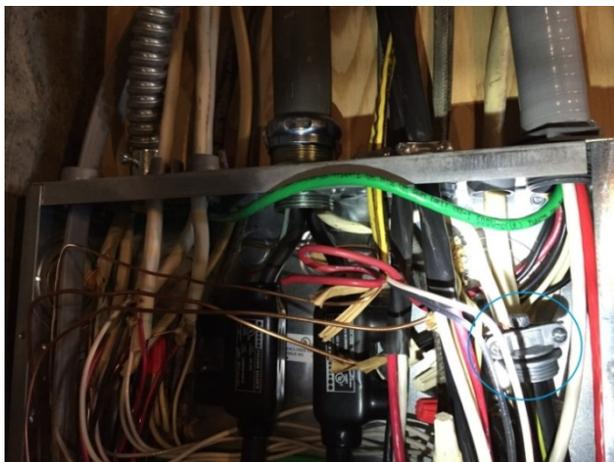
Dedicated Electrical Equipment Space

NEC® 110.26(E) requires all switchboards, switchgear, panelboards, and motor control centers to be located in dedicated spaces and protected from damage. The dedicated space for indoor electrical equipment is described in 110.26(E)(1)(a) and requires a space equal to the width and depth of the equipment and extending from the floor to a height of 6 ft. above the equipment or to the structural ceiling, whichever is lower and shall be dedicated to the electrical installation. No piping, ducts, leak protection apparatus, or other equipment foreign to the electrical installation shall be located in this zone. Two questions have recently come up about this requirement.

The first question is what about a panel that is mounted flush with the wall (inside the wall cavity). Is foreign piping, etc. permitted (above or below the panel) within the wall space? Nothing in the requirement exempts electrical panels inside a wall from the requirement to maintain dedicated electrical space. The dedicated electrical space for a panel within a wall extends from the floor to a height of 6 feet above the panel, or the structural ceiling, whichever is lower.

The second question: If a suspended ceiling is constructed above the electrical equipment, is foreign piping, etc. allowed to be installed above the suspended ceiling within the 6-foot space above the electrical equipment? 110.26(E)(1)(d) answers this question. A dropped, suspended, or similar ceiling that does not add strength to the building structure shall not be considered a structural ceiling. A suspended ceiling constructed above electrical equipment does not allow for installation of foreign systems in the dedicated electrical space.

Ugly Picture: *Click on the picture to open a larger image.* Code violation: (among others) NEC® 110.14 – You have to look carefully, as the inspector who found this did, but a nonmetallic-sheathed cable connector is being used as a method to splice the copper grounded service conductor to an aluminum conductor to extend it to the neutral bar in a service panel. The inspector found this installation (made by a previous homeowner) while inspecting a homeowner's installation of a new HVAC unit. Eventual failure of this neutral conductor connection would result in serious damage in the home and possible fire hazard or shock to someone working in the panel.



Answer to Question of the Month: D) Leave details in the (255-character) comment field of an [online inspection request](#). The inspector that takes the inspection job will read the comment and have the information to get the inspection done. Many times, inspectors start their day from the field and download inspection requests remotely. Phone calls require valuable time that reduces their ability to complete more inspections. Help us help you by making inspection arrangements in a way that avoids asking inspectors to make unnecessary phone calls.

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/>

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