



● This Month's Question of the Month

Who is responsible for ensuring the total quality of an electrical installation? A) Inspector B) Electrical Contractor C) Electrician – See the correct answer on page 2.

● Note From The Chief

Electrical inspectors are seeing more jobs – from a very small minority of electrical contractors – where the electrical contractor has a significant number of corrections or has missed one or two significant problems with their electrical installation. Last year, only 5% of all active electrical contractors received 40% of all corrections issued. This very small group of contractors negatively affects the ability of inspectors to quickly get to the inspections of other contractors' work. All electrical contractors and their assigned Administrator or Master Electrician are expected to do the quality control necessary to ensure that their job is ready for inspection. Ready for inspection means ready to be passed by the inspector. Inspectors are not expected to do the quality control for that small number of poorly performing contractors.

When inspectors find jobs where critical elements are incorrect (e.g. missing service bond connections, missing or inoperable GFCIs or AFCIs, etc,) or there are, in general, a significant number of corrections, the inspector may declare the job not ready for inspection. When that happens, the inspector will stop the inspection process and assess a trip fee for the re-inspection required because the contractor, or Administrator, or Master Electrician did not verify the job was ready for inspection. The contractor must then pay the assessed trip fee, make the corrections noted, and do the required quality assurance before requesting a re-inspection. When the inspector returns, the remainder of the job will be inspected, including the repairs for the corrections previously noted.

The job should be ready to be passed each time an inspection request is made.

● Solar Photovoltaic Installations

The PV industry has been around for several decades and has been a very innovative industry. The first National Electrical Code article dedicated to PV systems was included in the 1984 NEC.

One of the biggest changes has been the recent rapid development of building integrated PV systems (BIPV). When a PV array or panel is a structural component of the outside shell of a building, it is considered to be a building integrated system. In the last few years, roofs, windows, and facades have been designed equally as a finished surface or structural component of a building and as a PV power source – building integrated system. Oftentimes, these types of PV panels and arrays cannot easily be identified as a part of a PV system. Building integrated systems can range from small residential to very large commercial installations.

Because of the cross-trades aspect of building integrated systems, some people are confused about who can and cannot install them. Think of building integrated PV systems in simplistic terms. There is a mechanical aspect and an electrical aspect. Because one aspect does not prevail over the other, the mechanical aspect must be done by a general contractor registered under RCW 18.27 and the electrical aspect must be done by an electrical contractor licensed under RCW 19.28. This might require one contractor or two depending upon how the contractor is licensed and/or registered. If the electrical contractor is also a registered general contractor, the electrical contractor can do the entire installation.

If one contractor is involved, that contractor may use a crew split between roofers and certified electricians. Because there are worker certification requirements for electricians and none for roofers, the contractor might decide to only use certified electricians to make the complete installation. However, this is not likely because of the different skill levels involved and the differential in labor costs between the two trades. When building

Safety Tip of the Month!

Before the flood, go to the L&I Electrical website and click on Home and Business Owner Basics to get information about what to do before and after a flood that is critical to you and your family's safety.

<http://www.lni.wa.gov/tradeslicensing/electrical/>

If your house or building floods walk around and see if any part of your electrical system was submerged. Replace or repair all flood damaged wiring and equipment and get it inspected before re-energizing your system.

integrated systems are being installed, the electrical contractor must obtain the electrical permit before the PV arrays/panels are installed. The electrical contractor must do all of the electrical installation (e.g. wiring support, connections, etc.).

When the installation is non-electrical (e.g. roof brackets or stands that are not used as a grounding path), the work can be done by either a registered general contractor or a licensed electrical contractor. The electrical contractor, using certified electricians or properly certified trainees, must do the installation of all panels (except for building integrated as described above), wiring and other equipment that is used, in any way, to create, carry, or use electrical current.

● Fee Training Series – Miscellaneous

This is the seventh in a series of articles on selecting the appropriate permit fees for your work. This article will cover WAC 296-46B-906(7), (8), (9), (10), (11), (12), (13), (14), and (15).

Because of its limited use, Paragraph (6) will not be covered.

Paragraph (7) covers the various trip fees. The first fee item is requests by owners to inspect existing installations. The basic fee is \$86.60 and allows up to one hour of inspection time. If the inspection takes more than one hour, the inspector will add a progress inspection fee. The additional progress fee is \$43.10 for each additional or part of ½ hour. This fee item can only be used by the property owner (i.e. no contractors, real estate agents, etc.). The remaining trip fees are related to penalties and will be assessed by the inspector as appropriate.

Paragraph (8) covers progress inspection fees. This fee item is only used by covered in the basic fee. The fee can only be used by the inspector.

Paragraph (9) is for plan review. This fee is only used by the plans examiner and is in addition to the normal inspection fee. This fee must be paid in full before the approved plans will be returned to the submitter.

Paragraph (10) covers travel expenses for out of state inspections. Travel costs will be based upon the time required by the inspector and travel expenses as allowed by Washington state per diem rate.

Paragraph (11) is used as a miscellaneous category for any item not covered by another fee line item. It is a portal to portal hourly rate per hour or part of an hour. The hourly rate is \$86.60. Pre-scheduled inspections on weekends or after normal working hours must include portal-to-portal hours, adjusted for overtime when necessary, plus the regular line-item fee. This fee will be assessed by the inspector.

Paragraph (12) covers the fee for processing a variance application. This fee is due when the variance is submitted and is non-refundable.

Paragraph (13) covers marking of industrial utilization equipment by an inspector. This fee item is no longer relevant because the department no longer marks industrial equipment. It will be removed from the fee schedule and should not be used.

Paragraph (14) covers the purchase and inspection of Class B labels. Each book of twenty labels costs \$237.70 and is not refundable. If re-inspection of a Class B label is necessary, a basic fee of \$43.10 will be assessed by the inspector. The re-inspection includes the time from the previous inspection to the end of the re-inspection. If ½ hour is exceeded, the inspector will assess additional progress inspection fees.

Paragraph (15) covers the purchase of Provisional Permit labels. Each book of twenty labels costs \$237.70 and is not refundable.

This is the final article in this series. Use the previous articles to review your permit fees. Remember that articles written before October 2010 used the previous fee schedule. When reviewing a previous article or buying a new permit, you should use the current fee schedule that became effective October 1st.

● Answer to This Month's Question of the Month

B) and C) Electrical Contractor and the Electrician. (The entities that are doing the installation have responsibility for the overall job. The inspector is responsible for a spot check/audit of the overall installation).