



# ELECTRICAL CURRENTS

Newsletter from the Office of the Chief Electrical Inspector

Ron Fuller, Chief Electrical Inspector

Vol. 11 No. 7

July 2008

## ● Correction Reduction Initiative Update

The Correction Reduction Initiative for Fiscal Year 2008 ended June 30<sup>th</sup>. We monitored two groups:

- The 5% of contractors that got the most corrections per inspection; and
- The 5% of contractors that got the highest total number of corrections.

Both groups improved significantly the quality of their work resulting in about 8,000 fewer corrections. Improvement in the quality of a contractor's work saves the contractor and L&I time and money.

Next fiscal year's initiative will have a new group of contractors. We will be focusing on improving the work of the contractors who are getting the most corrections per inspection. The group will be the 20% of contractors who get the most corrections per inspection and had at least 24 inspections in the past year. These contractors get over two times the number of corrections per inspection more than the average electrical contractor. This 20% group gets only 15% of the electrical inspections, but it receives 32% of all corrections issued statewide.

All corrections indicate a problem with the work and create unnecessary return trips to jobsites to re-inspect. Contractors and their administrators are responsible for: supervising and training their employees, the quality of their installation work, and conformance with the mandatory installation safety standards. All contractors should concentrate on getting no corrections. Corrections cost time and money. We have had some contractors tell us they use our corrections to train their electricians and trainees. Using inspections as a training tool is wrong.

We will be more proactive this year in helping the new group improve their installation work. The goal for this year is to reduce their number of corrections per inspection by 40%. If this goal is met, the group will be almost down to the statewide average for corrections.

## ● 2008 Spring Inspector Training Sessions Were Successful

The Labor and Industries Electrical staff provided 16 hours of technical training to over 400 state and city electrical inspectors and supervisors, administrators, electricians, and trainees during the March, April, and May classes held in Kent. We received positive feedback from the participants about the training format and content of the training.

When possible, we will continue to invite city inspection jurisdictions, contractors, electricians, and trainees to attend our technical trainings on a space available basis. The recent classes were filled in two days (over the weekend) after a Friday announcement. If training opportunities are announced, we recommend you respond immediately. We always announce available training on the Electrical Listserv first. You can join this electronic mailing list at:

<http://www.lni.wa.gov/Main/Listservs/Electrical.asp>

Through the mailing list, you will receive electronic copies of this newsletter and links to other regulatory items that are useful to those working in our state's electrical industry. These automatic E-mailings are sent out only when something of importance is posted on our website.

## ● "Within Sight"

The NEC uses "in sight from, within sight from, and within sight" to mean visible and not more than 50 feet from one object and another. The 50 foot distance is the direct distance between two objects. The 50 foot distance is not the maximum distance traveled to go from one object to another.

Unlike maintenance disconnects, the location of emergency disconnecting means or emergency disconnect controls (e.g. fuel dispensers, commercial spas) are typically located subject to approval by

### Safety Tip of the Month!

When working on energized equipment identify what hazards exist and wear the appropriate protective equipment.

Arc flash can seriously hurt or kill you!

the AHJ. In such cases NEC required distances are sometimes associated with the maximum travel distance, not just visibility.

### ● Approved Electrical Construction Trade Apprenticeships And Training Programs

The feedback we received on June's Question of the Month (and answer below) indicated that we need to make training certificate requirements clear. RCW 19.28.161(2) states "*All apprentices and individuals learning the electrical construction trade shall obtain an electrical training certificate from the department. The certificate shall authorize the holder to learn the electrical construction trade while under the direct supervision of a master journeyman electrician, journeyman electrician, master specialty electrician working in that electrician's specialty, or specialty electrician working in that electrician's specialty. The holder of the electrical training certificate shall renew the certificate biennially.*" All electrical apprenticeships and approved electrical construction trade training programs involve hands-on field electrical work, internships, externships, shared work experience, and even electrical contracting work by some training programs. Individuals working without proper training certification are subject to citation.

Obtaining an electrical training certificate is the first step in becoming an electrician. Establishing your personal training records with L&I and participating in the regulatory program is an essential part of the electrical training process. The training certificate must be in your possession when you begin an apprenticeship or training program, not after the classroom work is done.

Since many appear to be unaware of this requirement, we will begin contacting the approved apprenticeships and training programs in the coming months. Apprentices have always been required to hold current training certificates. If you do not have a current training certificate and are currently in an approved electrical construction trade training program you must obtain (or renew) your electrical training certificate immediately. You cannot receive credit towards examination without holding a valid training certificate.

### ● L&I Employment Opportunities For Experienced (01) Journeyman Electricians

The Electrical Program's primary mission is to "Keep Washington's Safe." We ensure electrical professionals working in Washington are adequately trained licensed, and certified to do safe and compliant electrical work. We are seeking experienced and certified journeyman electricians who are interested in becoming inspectors. The electrical (inspection) program is required to only hire workers with specific installation experience requirements. We anticipate a large number of retirements in the coming years. If you want to work for a quality employer with good pay and benefits, you should put in your application. For more information about employment opportunities at L&I, visit our website at: <http://www.lni.wa.gov/Main/FindAJob/> and/or Join the L&I personnel division listserv to receive L&I job announcements: <http://www.LNI.wa.gov/Main/Listservs/LNIJobs.asp>. If you have questions, please contact, Phyllis Gallegos at (360) 902-5709 or by email at [Galr235@lni.wa.gov](mailto:Galr235@lni.wa.gov).

### ● Correction To The October 2007 ELECTRICAL CURRENTS Newsletter

This issue was devoted almost exclusively to the Appliance Repair (07D) specialty and was intended to address issues specific to that specialty and defining the scope-of-work. In the article titled "*Just What Is An Appliance?*" the included table should have been properly headed with "Examples of Residential, Commercial, or Small Industrial Appliances and Utilization Equipment." This table only describes equipment within the scope of work of the 07D specialty and **should not** be used to conclude that a self-contained hot tub is a "household appliance" and Class A electrical work exempt from inspection.

### ● Electrical Question of the Month

**This Month's Question:** What is the maximum rating for an inverse time circuit breaker used to provide motor branch-circuit short-circuit and ground-fault protection for a residential 240 VAC, single-phase, ¾ horsepower well pump motor, controller, and branch-circuit?

**A) 30 amps, B) 25 amps, C) 20 amps, D) 15 amps.**

**June's Question:** Individuals learning the electrical construction and maintenance trade (under the requirements of electrical contractor licensing and electrician certification), must have a current electrical training certificate: **A)** only when they are enrolled in a formal apprenticeship program [under RCW 49.04], **B)** constantly while enrolled in an approved electrical training program, **C)** only when working in the field for an electrical contractor, **D)** only after completion of the electrical training program, before they apply to get credit for the school. **Answer is: B).** [RCW 19.28.161(2)]