



● **This Month's Question of the Month** – The minimum number of 120-volt, 20-ampere, 2-wire lighting branch circuits required for a residence that measures 50 feet by 30 feet is \_\_\_\_\_. A) 2, B) 3, C) 4, D) 5 – See the correct answer on page 2.

● **Note From The Chief**

As I discussed in the May 2011, *Electrical Currents*, the Electrical Program has embarked on a long-term plan to become even more efficient and effective. The initial project with the Tukwila and Everett inspectors has ended. They were successful in developing new standard work practices that were presented to all L&I inspectors at their November 30<sup>th</sup> training. Both offices have proven that LEAN principles work. Both offices have improved their inspection response time (now about 98% <48 hours) and compliance enforcement focused on unlicensed electrical contractors, uncertified electricians, and entities that do not get permits and inspections. I want to offer my sincere thanks to both offices for their hard work and to everyone who supported them during this very successful project.

They used the Toyota Production System's LEAN process to eliminate waste and standardize our processes. As I said in the May newsletter, LEAN is a set of concepts, principles, and tools used to create and deliver the most value while consuming the fewest resources while engaging all program staff in a continuous improvement effort.

LEAN addresses problems at the systems level and within individual processes. Customer needs define value for the process. LEAN distinguishes steps that create value from those that do not. It reduces waste and builds in quality using LEAN's systematic problem solving methods. Using LEAN principles helps us to repeat and implement successes on a statewide basis.

The project team's work is being implemented across the state. You will see better and more consistent overall service and a reduction in the negative impacts of the underground economy. As I said in May, we will continue to challenge ourselves to provide a better product with less waste.

● **Why Study The 2011 NEC?**

Electricians and administrators are required to have twenty-four hours of continuing education in order to renew their certificates. At least eight of those hours must be NEC update training. Several years ago, the electrical program rules changed to allow credit for NEC update training covering the currently adopted NEC (currently the 2008 printing) or the most recently published version (2011). At this time, anyone seeking electrical certificate renewal may use a 2008 or a 2011 NEC updates class to satisfy their renewal requirement for code update. After the NFPA publishes the 2014 NEC, 2014 NEC update classes will also be approved.

Even though Washington did not adopt the 2011 NEC, it is important for electricians and administrators to remember that the NFPA made changes to the 2011 NEC that will affect them when the 2014 NEC is adopted in Washington. The changes made in the 2011 NEC will not be marked in the 2014 NEC. If you do not review and understand the 2011 changes, you may not be aware of changes that will affect you when Washington adopts the 2014 NEC. You should study the changes made in both the 2008 and 2011 versions.

● **Electrical Board Vacancies – Applications Due Before March 1, 2012.**

The Electrical Board advised the Director on all matters pertaining to the enforcement of the electrical and telecommunications law. The board normally meets once each quarter – the last Thursday in January, April, July, and October.

**Safety Tip of the Month!**

The presence and accumulation of combustible dust is a serious hazard. Keep your workplace clean and use wiring methods appropriate to the potential explosive hazards.

There were at least six deaths from dust explosions and a fatality or injury occurred in 71% of all combustible dust incidents across the USA last year. Between 1980 and 2005, there were 119 workers killed and 718 injured in dust explosions across the nation (US Chemical Safety Board data).

The Electrical Board has one current vacancy, telecommunication utility representative, and three positions that expire July 7, 2012. The expiring positions are:

- Electrical utility representative
- Telecommunications contractor
- Building official from a city or town with an electrical inspection program

The telecommunications utility position’s term will expire on July 7, 2014. All the other positions are four-year terms expiring on July 7, 2016.

The Governor’s office has asked L&I to assist in recruiting applicants for the four positions. Applicants must send their applications and supporting recommendations and supplementary information directly to the Governor’s office. Board information and applications are available on the Governor’s website at:

<http://www.governor.wa.gov/boards/default.asp>. Applicants must use the Governor’s form when applying.

Contact L&I, Crystal Forsberg at (360) 902-5249 if you have questions about the positions or the Electrical Board.

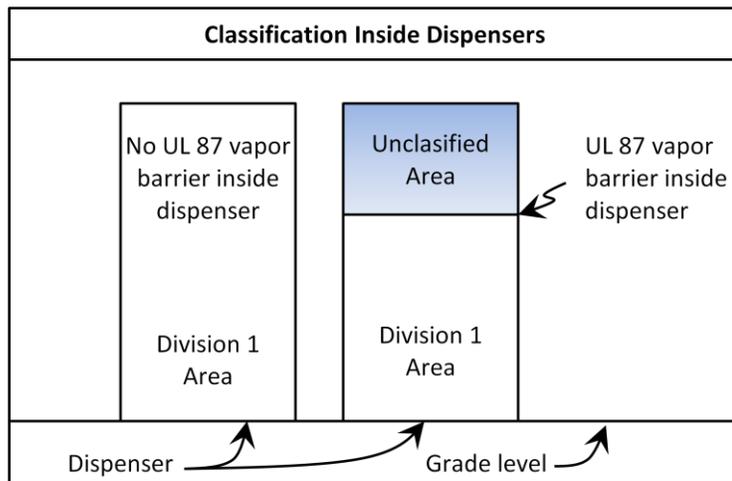
● **Fuel Dispensing Pump – How Is It Classified?**

The question has come up whether the area inside a fuel dispenser is a classified location. 2008 NEC Table 514.3(B)(1) refers to UL 87 as the Standard for classification of areas inside of a fuel dispenser. After reviewing UL 87, it is clear that the answer is, “It depends.” If the dispenser is constructed with a vapor barrier separating the dispenser compartments, the area above the vapor barrier is not a classified area as shown in the drawing below.

In Washington, the 07E equipment repair specialty may perform electrical work on limited “utilization equipment (see RCW 19.28.095 for the complete scope of work). However, for the 07E specialty the equipment must not be in a classified location.

If the dispenser meets the vapor barrier construction requirements of UL 87, the

07E specialty may work inside the unclassified area above the vapor barrier. If there is no vapor barrier, the entire interior of the dispenser is a classified location beyond the allowed work scope of an 07E specialty electrician.



● **Ugly Installations**

This month will begin a series of recent photographs of extremely poor and dangerous electrical installations found by L&I’s inspectors across the state. Please, do not let one of your installations become an Ugly Picture in the *Electrical Currents*.

The first Ugly Picture is an unpermitted and uninspected service panel replacement found by one of our inspectors. Look closely and see how many code violations can you find?



● **Answer to This Month’s Question of the Month:** A) – 2008 NEC 220.12