

# ELECTRICAL CURRENTS

A Newsletter from the Office of L&I Chief Electrical Inspector Wayne Molesworth

May 2022

## Question of the Month

You are a certified journey level electrician working for a licensed electrical contractor. You are sent out on a service call to make a like-in-kind replacement of some electrical equipment. Which of these would require the contractor to purchase a permit?

- A 240 volt, 30 amp heat pump
- A single 140 amp hour battery
- A five horsepower motor
- One branch circuit breaker for dwelling garage receptacles

See the correct answer on page 2 and there is a hint in an another article this month.

## Safety Tip of the Month

As warmer months are coming it is important to remember that the proper clothing and Personal Protective Equipment (PPE) are an important element in our daily work.

- It is important that you have the correct equipment for the task you are performing and use it properly.
- PPE may be sweltering hot or cumbersome however, do not let a little discomfort keep you from using your safety equipment.
- To combat the effects of the added layers of PPE, sip water though out your day and take breaks as needed to cool down.

More information about working in the heat can be found at [Be Heat Smart \(wa.gov\)](https://www.wa.gov/Be-Heat-Smart)

## Apply to be an Electrical Inspector Today!

If you enjoy putting your knowledge to work and helping people by leveling the playing field, it may be the right time to join our team. Inspectors have a great benefit package and a work/life balance that is hard to find.

In the past few months, we have filled a few vacancies, but there are still many openings across the state and most areas are recruiting. If you are a Washington 01 master electrician or a Washington 01 journey level electrician who has held that certificate for at least 4 years.

Find an application for an opening near you:

<https://www.governmentjobs.com/careers/washington?keywords=L%26I%20electrical>.

For questions, please contact: [Jobs@Lni.wa.gov](mailto:Jobs@Lni.wa.gov).

## Keep Your Hot Side Hot and Your Cool Side Cool

When warm air and cold surfaces mix, condensation builds up in electrical equipment. It can happen anytime there is a difference in temperature. When you know conduits are going to have big difference in temperature NEC® 300.7 requires you to seal them to reduce air movement. The picture on the right is of an ice dam that built up in a disconnect where the conduit was not sealed properly.



## Find Trainee Affidavit Hours, or Renew Online

The Verify tool - <https://secure.lni.wa.gov/verify/> - allows anyone to see affidavit hours, find their certification number and see renewal lapses. Search by name and narrow the number of results by selecting Electrical > Electrical Trainees.

Verify also displays lapses under the Past and Related Licenses link in the results. If the Past and Related Licenses link is not present, there are no lapses or other licenses to display.

Renew your license or certificate online : <https://lni.wa.gov/licensing-permits/manage-licenses-certifications>

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Electrical Section Internet Address: <https://www.lni.wa.gov/> -

Select Licensing & Permits, then Electrical

## Licensing and Certification is Required for Class A Basic Electrical Work

[RCW 19.28.006](#) and [WAC 296-46B-901\(7\)](#) define the term “Class A basic electrical work”. This term is used to identify types of work that are exempt from permitting and inspection. Other considerations:

- Even though Class A work does not require permits and inspections, if you are not the property owner, only licensed electrical contractors and certified electricians can perform Class A basic electrical work.
- Nothing in [RCW 19.28.041](#) or [.161](#) provides an exemption from licensing and certification requirements for performing Class A basic electrical work.

If you have questions about electrical licensing and certification requirements, contact your local [field office](#).

## Requirements for Electrical Equipment - Recognized vs Listed Components

According to Underwriters Laboratories (UL), Recognized Components (identified by the **RV** mark) are products that are incomplete in construction features or limited in performance capabilities. The Recognized Component Mark does not provide evidence of listing or labeling which the National Electrical Code or other installation codes or standards may require. The State of Washington does not approve Recognized Components as stand-alone products. Recognized components can only be used in a product that has been certified (listed) as an assembly (e.g., inside a listed industrial control panel).

[RCW 19.28.010\(1\)](#) requires all electrical equipment to be manufactured to an applicable electrical safety standard. [WAC 296-46B-010\(7\)](#) clarifies electrical equipment must be:

- Manufactured to applicable electrical safety standards recognized by the department (Note: A variance request must be submitted for this approval. Manufacturer documentation of standards for each component will be required before approval will be granted.); or
- Approved by listing or field evaluation by an L&I approved electrical testing laboratory. Contact information for all approved electrical testing laboratories is available on our website at: [Electrical Product Testing & Engineering Evaluation \(wa.gov\)](#)

The marks to the right are some of the more common “listing” marks used to indicate a product has been certified by a product testing laboratory. A listing mark will always be accompanied by the product name (e.g., portable lamp, industrial control panel, etc.) to help you in ensuring that the listing is appropriate to the use of the product.



**Answer to Question of the Month:** a. A 240 volt, 30 amp heat pump. Check out the list of Class A permit exempt work in [WAC 296-46B-901\(7\)](#). Remember the work is not exempt if it is not on the list.

**Ugly Picture of the Month:** *If viewing this document online, Click on the picture to open a larger image.* The underground service conductors failed and this was the “temporary” fix.

Fortunately the inspector was able to take action and get this installation on the right track before someone was hurt.



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