



THE WIRE

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November 2025

The Presidents' Letter

As all of you are aware by now, Marilyn has passed away. We are still picking up on her duties and responsibilities. Board members have had several meetings and / or discussions regarding the ECHL moving forward.

For the time being, the newsletter will be sent out electronically via email. We have made sure that all of our classes have been scheduled with the Department of Housing, Building, and Construction. We are tracking membership dues. If you have not renewed your membership yet, please help us out and renew your membership as soon as possible.

If you have any suggestions or ideas on the future of the ECHL, please attend the next general membership meeting on November 10th and express your thoughts.

Our October meeting had 35 in attendance. Time was spent with discussion on moving forward. I covered more of the significant changes to Chapter 3 of the 2023 National Electrical Code. Mike Bauerla will be conducting the November presentation. Mike is very knowledgeable of the electrical code and always delivers an excellent presentation. Hope you can make the meeting.

We have added a help request form to the ECHL website. Many of our members are experiencing problems getting answers to questions. Questions regarding licensing, electrical inspections, utility concerns, or electrical code are just a few examples that we have heard about. Take a look at the site and see what you think.

The Department of Housing, Building, and Construction has transitioned to the new database. Please do not be surprised if you have

November 10, 2025 Code Program

***Sign-in 6:30 P.M. - Program at 7:00 P.M.
ELKS LODGE # 8 - 2824 KLONDIKE LN -***

The program for November will be a presentation by Mike Bauerla, a training instructor at Prosser Career Education Center. Mike is very knowledgeable of the electrical code and always delivers an excellent presentation. Hope you can make the meeting.

Bring a friend and enjoy the program.

Dennis Steier will go over the Code Questions from the November 2025 Wire.

See you Monday Evening, November 10, 2025, at 6:30pm.

Stay Alert! Work Smart & Stay Informed!

Mark your calendars - CEU Renewals!

Our General Membership meetings are held at the Elks Lodge located at 2824 Klondike Lane. The meeting starts at 7:00 pm with sign-ins beginning at 6:30 pm. You can obtain your CEU Hours toward your Master Electrician License, by attending 4 classes of 1.5 credit hours at each class. Membership also includes an option for a Saturday class in February to obtain the credit hours to renew your contractor's license.

November 10, 2025
December 8, 2025
January 12, 2026
February 9, 2026

Applications for membership can be obtained from our website: www.ECHLKY.com

Please encourage your employees to join us at the General Membership meetings. It's a great place to network with the electrical industry.

The 6 hour Contractor's Class will be February 14, 2026 at 4315 Preston Hi-Way; Suite 102; Louisville, KY 40213; 2nd Floor Training Room.

Applications are on the echlky.com website.

November 2025 Code Questions

1. You have installed a run of 1" PVC that is 150 feet long, in an area that has a possible 60 degree change in temperature. How much should you allow for expansion?

- A. 2.43"
- B. 3.65"
- C. 4.86"
- D. 3.65"

2023 NEC Code Section? _____

2. You installed a feeder of 6" Rigid Metal Conduit, what is the supporting requires for the run of conduit?

- A. 14'
- B. 10'
- C. 20'
- D. 16'

2023 NEC Code Section? _____

3. Can you install Liquid Tight Flexible Conduit in a Class 1 Division 2 area? And if so what would be required?

- A. Yes
- B. No

2023 NEC Code Section? _____

4. You have a 4100volt motor that you need to make a race way connection to the terminal enclosure, what is the maximum length of flexible metal race that could be use for the connection?

- A. 6'
- B. 10'
- C. 8'
- D. None of above

2023 NEC Code Section? _____

5. You have a Delta Connected Service that is fed with 500 MCM, what size grounded conductor is required?

- A. 3/0
- B. 50MCM
- C. 500MCM
- D. 4/0

2023 NEC Code Section? _____

6. Can you install 277v lighting in a Hotel Guest Room?

- A. Yes
- B. No

2023 NEC Code Section? _____

Article 392

In today's industrial installations the use of cable tray is becoming more common for many reasons first is flexibility and future alterations to their electrical system. That inspired me to put together this month's Code Corner

When you are looking for the rating of a conductor you would automatically refer to Article 310 Ampacity.

There are tables in 310. that have conductors in raceways and open air, would conductors have installed in a cable tray which is a raceway is considered open air conductors for ampacity rating? The answer is yes, and you would need to refer to Article 392 section 392.80 **Ampacity of Conductors** for these ampacity ratings for the conductors in Cable Tray. In an open an open-air application 310.15(B) (17) is the Table you would use for allowable ampacity.

392.80 (A)(1) **Multiconductor Cables:** This section is for the allowable ampacity of Tray cable if the installation meets the requirements of Table 392.22(A) and refers you to 310.15(B) (16) the adjustment factor applies to multiconductor cables with more than 3 current carrying conductors. For continuously covered for more than 6ft you must adjust as well by using a .95 of the allowed ampacities of Table 310.15(B) (16) and Table 310.15(B) (18) for multiconductor cables.

392.80(A)(2) **Single Conductors Cables:** Single conductor cables 1/0 and above is allowed to be installed in Cable Tray if they carry a Cable Tray rated listing. The ampacity of these cables is 310.15(A)(2). The adjustment factor shall not apply to the ampacity of cables in cable tray unless the tray is covered with six or more feet with a solid unventilated cover. In this type of installation you would have to de-rate the conductor's ampacity by 40%.

392.80(A)(2)(d) Where single conductors are installed in a triangular or square configuration in uncovered cable trays, with maintained free air space with a space of not less than one cable diameter between individual conductors, the ampacity of 1/0 AWG and larger shall not exceed the allowable ampacities in Table 310.15 (B) (17) and Table 310.15(B) (19). There is an Exception to this if you use solid bottom tray requirement of 310.15(C) would have to be applied.

When you use cable trays it will give you flexibility in your installation and future changes in the system. It also allows you to use a smaller conductor and meet your ampacity requirements for your application.

Submitted by Dennis Steier

Top Three Code Violations Louisville Metro Inspections November 2025

These violations are costing you time and money.

1. NEC Article # 210.17 - Electric Vehicle Branch Circuit

An outlet(s) installed for the purpose of charging electric vehicles shall be supplied by a separate branch circuit. This circuit shall have no other outlets.

2. NEC Article # 210.64 Electrical Service Areas

At least one 125-volt, single-phase, 15 or 20-ampere-rated receptacle outlet shall be installed within 15 m (50 ft.) of the electrical equipment.

Exception: The receptacle outlet shall not be required to be installed in one & two-family dwellings.

3. NEC Article # 210.52(A)(3) Floor Receptacles.

Receptacle outlets in or on floors shall not be counted as part of the required number of receptacle outlets unless located within 40 mm (1 1/2 in.) of the wall.

You lose money when you are turned down on a project. It also cost you time, when you have to return to the job site to make the necessary changes to correct the violation, that too, cost you money. Time is money.

We hope this will help save you time and money on inspection fees by reviewing the articles and making sure you have not violated the code before calling for the initial inspection.

Presidents Letter - Cont'd

issues with your next license renewal. If you do experience any issues, please contact one of the Board members for assistance.

The Sponsorship Form is on the website. If you know of any company that may be interested in becoming a sponsor, please print off the form and give it out to any prospective sponsor. The cost for a company or organization to become a sponsor is \$100.

Our next general membership meeting is scheduled for Monday November 10, 2025 at the Elks Lodge located at 2824 Klondike Lane. The meeting starts at 7:00 pm with sign-ins beginning at 6:30 pm. Hope to see you there.

As Always Stay Safe and Work Safe
Steve Willinghurst

LG&E NEWS

CHECK THOSE DETECTORS THE HOLIDAYS ARE (ALMOST) HERE!

As falling temperatures begin to put furnaces, space heaters and fireplaces to work, the risk for house fires and carbon monoxide leaks increases. That means it's more important than ever to check that your home's smoke detectors and carbon monoxide (CO) detectors are up to the task. First, ensure your home's smoke and CO detectors have fresh batteries. (These batteries should be replaced annually.) Next up, test each detector for proper functioning once every month. Finally, the National Safety Council advises that CO detectors should be replaced every five years and smoke detectors should be replaced every 10 years. Following these simple guidelines can help ensure your home's smoke and CO detectors are ready to work this winter and beyond.

What's Wrong Here?

Hint: One of these things is not like the other.



While it may or may not be a violation for this installation, the fact that the middle fuse is a Class H fuse with an interrupting rating of only 10,000A while the other two fuses are Class K type with a 50,000A interrupting rating provides me with an opportunity to discuss the importance of knowing the available fault current.

Section 110.9 requires fuses, circuit breakers and other equipment intended to interrupt current at fault levels to have a rating equal to or greater than the available fault current available at the line side terminals of the equipment. If the available fault current here is 10,000A or less, there is no Code violation or safety concern with having fuses of different AIC ratings. However, if the available fault current is greater than 10,000A, there are Code violations and serious safety concerns. Installers must know the available fault current in order to choose the correct equipment to be installed. If the available fault current here is 50,000A, the fuse with the 10,000 AIC rating could fail violently and catastrophically if exposed to that high fault current. A person turning this disconnect switch on during that fault condition could be severely injured or worse if that fuse exploded. Many Code Sections require the available fault current to be marked or documented for equipment including Sections 110.24, 408.6, and 409.22 among others.