



THE WIRE

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102 Whirlaway Ct, Cox's Creek, KY 40013
502.528.9319
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OCTOBER 2021

President's Letter

Our first general membership meeting since the start of Covid was very informative and well attended. The presentation by Orbit Industries on labor saving materials and devices was one of the best classes that I have attended. A huge thanks to Tony Pittelko, with Richards Supply, for setting up the class. We had 44 people in attendance.

At the meeting, a motion was made, seconded, and passed to retain the current executive committee until an election in February 2022. A final slate of candidates will be presented in January 2022 to vote on at the February meeting. Any one interested in being on the committee, please contact one of the current members.

The best that we can determine, Kentucky is still under a State of Emergency. **Once** the state of emergency is lifted, license holders will be given 120 days to obtain their continuing education. As it is right now, if you have had two renewal dates since March 2020, you will be required to obtain 12 hours for your respective licenses. However, the Department of Housing, Building, and Construction may modify this decision. I have been told that the Department will notify the various organizations when a decision has been finalized. For more information, please call the Department at (502) 573-2002.

Still there is no known movement on adopting the 2020 Electrical Code. As I said last month, there seems to be no sense of urgency to adopt this code in a timely manner. We'll just have to wait and see what happens.

There have been several complaints about the ECHL website not being current with information. This was discussed at our last executive committee meeting. We are meeting with the web designer at the October committee meeting to discuss measures to prevent this from happening again.

If anyone has any suggestions for continuing education topics, please get a hold of one of the executive

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**** October 11, 2021 Code Program ****
Sign-in 6:30 P.M. - Program at 7:00 P.M.

ELKS LODGE # 8 - 2824 KLONDIKE LN -

Our October code class will be presented by our very own President Steve Willinghurt and his side kick, Dennis Steier.

Steve and Dennis will tag team on several concerns that have surfaced on various code articles. Steve will also go into NFPA 70E topics.

We encourage you to participate by asking questions.

If you have any questions about your license or credit hours, please contact Frankfort (502) 573-2002. You can also go to the State's Website for additional information.

Stay Informed, Work Smart & Stay Alert!

Dues Renewal

It is time to re-new your ECHL membership. Invoices were included in last months September Wire. Your membership is especially important to us, especially at this time of uncertainty. We are pleased to getting back to our monthly routine of providing our members with up to date training.

Denise Arnold and I have missed everyone and are looking forward to getting back to a full house and seeing you!

!!! Bring a electrical friend with you!!!

Answers to August Code Questions

1. No - 502.125B
2. Yes - 408.3E1
3. Yes - Table 400.4 & 501.140B
4. 5 times - 334.24
5. None N/A - 310.15 B 16
6. Table #250.3 & #408.40

OCTOBER Code Questions

1. Can Flexible Metal Conduit be installed in a Hazard location application? Where would you find this answer in the 2017 NEC?

YES NO

Section _____

2. Does a light fixture that is installed in a Class 2 Division 2 application need to be label for the application? Where would you find this answer in the 2107 NEC?

YES NO

Section _____

3. Can you splice a portable cord in a temporary installation without use of a box? Where would you find this answer in the 2017 NEC?

YES NO

Section _____

4. Can you install the Fire Pump disconnect in Switch gear that supplies other loads other than the Fire Pump? Where would you find this answer in the 2017 NEC?

YES NO

Section _____

5. An above ground tank dispensing gasoline with a dike what Class and Division would be considered? Where would you find this answer in the 2017 NEC?

Section _____

6. Can an standard LED lamp be installed in a clothes closet in a porcelain keyless holder and meet the requirements of 410.16?

YES NO

Code Corner

Article 410

Closets have changed over the years in homes, they use to be small and just enough room to hang your clothes up and maybe put your shoes on the floor. Now closet have become more elaborate walk in type with a variety of features and that is where we may forget that it is still considered a clothes closet.

The definition in Article 100 is an **uninhabitable room or space intended primarily for storage of garments and apparel**. Section 410.2 has a more in depth definition of Closet Storage Space that go into further detail of a clothing closet. Figure 410.2 can help you with dimension as well.

NEC 410.16 Luminaries in Clothes Closets covers the entire requirement that a luminaire most meet to be installed in a Clothes Closet.

NEC 410.16(A) Luminaire Type Permitted.

Surface Mounted or recessed incandescent or LED luminaires with completely enclosed light sources.

Surface mounted or recessed fluorescent luminaries.

*Surface mounted fluorescent or LED luminaires **Identified** as suitable for installation for installation in closet storage space. This type of fixture would have a UL 1598 listing*

NEC 410.16(B) Luminaire Types Not Permitted. *Incandescent luminaries with open or partially enclosed lamps and pendant luminaires or lampholders **shall not be permitted.***

NEC 410.16(C) Location. *The minimum clearance between luminaires installed in a clothes closet and the nearest point of a closet storage space shall be as follows: Figure 410.2 is spelled out in detail in the language in this section.*

Remember, just because a Clothes Closet is as big as some rooms now it is still falls under the definition as an uninhabitable room intended primarily for storage of garments and apparel when choosing or installing the light fixtures

Submitted by Dennis Steier

President's Letter Cont'd

committee members. We are continually looking for any suggestions.

Hope you will be able to attend the October 11th meeting. It starts at 7:00 pm with sign-ins beginning at 6:30 pm. The location is at the Elks Lodge 2824 Klondike Lane.

As Always Stay Safe and Work Safe
Steve Willinghurst
ECHL President

LG&E NEWS

Rigid Riser Pipe

Lately there has been some confusion on the requirements on rigid riser pipe installation. Much of this has to do with service upgrades. Louisville Gas & Electric standards call for a minimum of 2" riser for up to 100-amp entrance. Above 100 amp calls for a 2-1/2" riser and a 3" riser is required for a 400-amp entrance. This standard has been in place since 2010 but has not always been enforced by the locator for various reasons. Anything less than what has been describe above will no longer be accepted even if the electrical inspector approves the work. LG&E wants to make sure the integrity of the service location can withstand weather challenges as well as the service wire load. If in doubt refer to the service handbook online at <https://lge-ku.com/residential/guides>

Submitted by Henry Ford

Supporting our Industry

**** Electrical Equipment Needed ****

ECHL is committed to supporting the electrical industry and the training required to further the trade. In doing so, we ask for your old equipment / inventory to use for training.

ECHL contractors and or suppliers - if you are cleaning out your old Inventory and have material (electrical equipment) that is taking up space in your warehouse the Iroquois High School Electrical Program is seeking material that can be used for teaching students about electrical products they may encounter in the field. Educating our future apprentices is the goal.

Old or new! Glenn will take it all. Contact Glenn Piffer by email Glenn at glenn.pifer@jefferson.kyschools.us or at 502-500-0668 to arrange for delivery or pick up.

Thanks for your support!

Top Three Code Violations Louisville Metro Inspections

OCTOBER 2021

These violations are costing you time and money.

1. The service mast must be of adequate strength or be supported by braces or guys to withstand the strain of overhead service conductors..

NEC Article # 230.28(A)

- 2 Conductors other than service conductors cannot be installed in the sme raceway in which service conductors are installed.

NEC Article # 230.7

- 3 Metal auxiliary gutters shall be connected to an equipment grounding conductor(s), to an equipment bonding jumper or to the grounding conductor where permitted or required.

NEC Article # 366.60

Please review the NEC articles above. Each of these articles are associated with a violation. Please keep in mind to follow through with the current approved CODE..

Being Turned down on a project, you lose money and time required to return to the job site for repairs to correct the violation.

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.

Submitted by:

Arnold Hornback
Assistant Chief Electrical Inspector
Louisville Metro Dept of Codes and Regulations

KNOW THESE RULES—Low Voltage

Communications systems and equipment installed in buildings must comply with the specific rules provided in Article 770 and Chapter 8 of the *National Electrical Code (NEC)*. Even though these systems typically operate at lower energy levels, improper grounding and bonding can result in severe consequences for equipment and property and present shock hazards.

Grounding, in the simplest form, is the process of connecting an electrically conductive object to ground (the earth). Bonding is the process of connecting conductive objects together to establish continuity and conductivity. If a system or equipment is grounded, it is connected to the earth, and if objects are bonded, they are connected to electrically become one potential or as close to the same potential as possible. These two processes work in unison to provide safety for communications systems, equipment and property. Grounding and bonding for communications equipment and systems provide operational grounding and protective grounding functions. Both grounding and bonding are functions necessary for safety when installing communications or other limited-energy systems. The purpose of grounding and bonding for communications and limited-energy systems and equipment is to provide a level of shock protection and limit damage from voltage surges created by lightning, line surges or unintentional contact with higher-voltage lines. Grounding protects the equipment and provides a path to the earth for lightning events; however, the grounding and bonding requirements of Chapter 8 in the *NEC* should not be confused with the requirements for lightning protection systems as provided in NFPA 780, “Standard for Installation of Lightning Protection Systems.”

It is important to recall that Section 90.1 indicates the purpose of the *NEC* is to protect people and property from hazards that arise from the use of electricity. Lightning is a powerful and unpredictable force that is not used by people. Electrical grounding and bonding rules in the *NEC* provide varying degrees of protection from lightning events—it is typically not the primary purpose but one of the functional and performance benefits. The requirements within the communications articles in Chapter 8 cover installations of primary protectors, usually located at the communications service cables point of entry to a building. See Part III within articles 805, 820, 830 and 840.

The 2020 *NEC* experienced significant restructuring of

KNOW THESE RULES Cont'd

the communications systems rules. Chapter 8 of the *NEC*, “Communications Systems,” now consists of six articles: 800, “General Requirements for Communications Systems;” 805, “Communications Circuits;” 810, “Radio and Television Equipment;” 820, “Community Antenna Television and Radio Distribution Systems;” 830, “Network-Powered Broadband Communications Systems;” and 840, “Premises-Powered Broadband Communications Systems.”

During the 2020 *NEC* development process, significant redundancies were identified in each of these articles that facilitated the need to simplify the rules and reduce repetition in every Chapter 8 article. The 2020 *NEC* revisions resulted in a new Article 800 addressing the general requirements for communications systems to insert all common requirements in a single location that will apply to all Chapter 8 articles. Article 800.1 explains that the revised scope in 800 contains general requirements for communications systems that apply, unless modified in articles 805, 820, 830 or 840. The remaining rules in former Article 800 have been relocated to a new Article 805, “Communications Circuits.” The result is improved clarity and usability because all of the redundant requirements are now rolled into Article 800.

Similar grounding and bonding rules are applicable to each article and address requirements such as sizing of grounding electrode conductors, installation of bonding jumpers, installation of grounding electrode conductors and so forth. The definitions in Article 100 provide a foundation on which grounding and bonding requirements are built. The meanings of terms used in articles 770, 800, 805, 810, 820, 830 and 840 should be the same.

The 2020 *NEC* was also revised globally to include rules related to reconditioned equipment. It is now addressed in Section 800.3(G) and requires that the general requirements of 110.21(A)(2) apply. This rule indicated that reconditioned equipment is to be marked with the name, trademark or other descriptive marking of the organization responsible for reconditioning it and the date of the reconditioning. The equipment must be marked as reconditioned, and the original listing mark must be removed. There is an exception for industrial occupancies.

Source: Internet Search ; Mike C. Ode Articles: Mike C Ode, Fire/Life Safety, Residential & Code Contributor. Lead Engineering Assoc. for Energy & Power Technologies at Underwriters Laborato-