



THE WIRE

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DECEMBER 2021

President's Letter

Our November general membership meeting was another well attended event with 51 members present. Mike Tobin, with ABB, gave a very informative presentation on overcurrent protection and short circuit current ratings. The 50/50 drawing was for \$107 and it was won by Mark Steurer. Our December 13, 2021 presentation will cover common code violations and L.G.&E. updates. Metro electrical inspectors and L.G.& E. supervisors will be present.

I checked with the Department of Housing, Building, and Construction and 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. If you have had two renewal dates since March 2020 and have not satisfied any continuing education requirement, you will be required to obtain 12 hours for your respective licenses. At this time there are no plans to waive any required continuing education. The Department is encouraging license holders to go ahead and get their required continuing education now. For more information, please call the Department at (502) 573-2002.

The Department is planning on finding a legislator to sponsor legislation to allow advisory committees to be established again. This will have to be approved by the legislators when the session begins after the first of the year. In addition, I confirmed that the State Building Code must be adopted before the National Electrical Code can move forward. This was a legislative move during the previous administration.

Hope you will be able to attend the December 13th 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

ECHL Board Members

***Reaching out and
Wishing all our Members a
Merry Christmas and
Happy New Year***

***NOVEMBER 13th, 2021 Code Program
Sign-in 6:30 P.M. - Program at 7:00 P.M.***

ELKS LODGE # 8 - 2824 KLONDIKE LN -

Our December program will be a tag team with Louisville Metro Inspections and LG&E. The presentation will cover common code violations and LG&E updates. Metro Electrical Inspectors and LG&E supervisors will be present.

Louisville Metro Inspections published their Top Three Code violation each month in our newsletter. These violations are costing the contractor money on second inspections cost, manhours to correct the violation, and delay in completing the job.

Be aware of the current approved code and make sure you have completed the job by those standards. This will ensure that your project stays on schedule. Metro Inspector will be there to address any questions you may have.

LG&E will also cover some updates, and will have their supervisors there to address any concerns.

Please bring a friend and we encourage you to ask questions.

See you Monday Evening at 6:30 pm.

DECEMBER Code Questions

1. What Code making Panel is responsible for Article 517?
2. What page of the 2017 NEC has Listing requirements for Communication Systems?
3. What is the allowable continuous load amps for a #18 copper conductor? Where would you find this answer in the 2017 NEC?

Section: _____

4. Can Fuses or Circuit breaker be permitted to be connected in parallel? Where would you find this answer in the 2017 NEC?

YES NO

Section _____

5. How many feet or you allowed for the secondary conductors in an Industrial application supplying a switchboard? Where would you find this answer in the 2017 NEC?

Section _____

6. You have a Column-width Panelboard Enclosure is the neutral conductor require to originate from the panelboard with a pull box with a neutral termination? Where would I find this answer in the 2017 NEC?

YES NO

Section _____

Answers to NOVEMBER Code Questions

1. D, Section 314.16 B
2. B, Table 430.248 and 430.22
3. C, Section 430.10 B
4. Yes, Section 520.10
5. Yes, Section 620.11 C
5. Yes, Section 392.60

Code Corner

Code Corner

Article 590 Temporary Installations

Well it that time of year again to get out the Christmas decorations that it seems like we just put up a month ago the way time seem to speed up as we get older! For those of us that may be putting up outdoor decorations this installation is cover in the NEC under Article 590 for Temporary Installations. This Article needs to be followed the safeguard you and your from the hazards that may arise from an unsafe temporary installation.

Have you check all of the lights or decoration you may be using for frayed wire (squirrels sometime do some chewing on those wires) your plugs and extension cord you may be using. Speak of extension cords it put me in mind of Tommy Young who was a State inspector and would have a meeting once a year with the ECHL and had slides of violates and the State would inspect the Kentucky State Fair, he would refer to them as “stention” cords in his presentation. We miss you Tommy rest in peace.

Is all of your lights and decoration you are installing carry a listing for outdoor use? They be listed and label for that application per 590.5. Are the receptacles feeding the lights and decorations GFCI protected as required per 590.6 (A) (1). Is the equipment ground if needed on some of your decorations meeting the requirements of 590.6(B) (3)

Please use caution and following the requirements of Article 590 to assure you and your family a safe holiday season, let make all of our surprises happy ones this Holiday season. Happy Holidays to all of you and your families. Remember per 590.3 (B) you have 90 days to take them down, you don't want to have your neighbors calling the Inspector on you!

Hope you and yours have a Happy and Joyous Holiday Season a very prosperous New Year!

Submitted by Dennis Steier



**** CONTRACTOR CLASS ****

ECHL is Sponsoring a Contractors Class is Scheduled for Saturday, February 12, 2022. Applications is in this Wire. Cost will remain the same: \$70 for Members, \$100 for Non-members and at the door. \$125.

If you have any questions, please contact Denise at (502) 491-5010 or Marilyn at (502) 528-9319

Thanks.

Dues Renewal

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

We have yet to reach the number of member we had prior to the pandemic. We realize things are still in a turmoil and everyone is busy shuffling work, training and shortage of trained workers. We continue to look for all our past members,

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

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

DECEMBER 2021

These violations are costing you time and money.

1. Each grounded conductor in a panel shall terminate in an individual terminal that is not also used for another conductor..

NEC Article # 408.41

2. Service entrance and overhead service conductors shall be arranged so that water will not enter race-way or service equipment.

NEC Article # 230.54(G)

3. All cut ends (PVC) shall be trimmed inside and outside to remove edges.

NEC Article # 352.(28)

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 the 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: Mike C. Ode, Electrical Construction Magazine – Published – March 2021