



THE WIRE

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JANUARY 2025

The Presidents' Letter

Our December meeting had the best attendance in years with over 50 people present. I would like to thank Business Manager Ed Devine, on behalf of the IBEW Local Union 369, for sponsoring the dinner that night. Everyone was in a very festive mood with a lot of great discussion and comments.

I would also like to thank Ed and Local Union 369 again for their very generous donation of \$2000 to help the ECHL. The Local has always been a very strong supporter of the Clearing House and this donation is very much appreciated.

Another round of thanks goes out to Louisville Chapter of NECA for sponsoring the Clearing House's website. This sponsorship amounts to around \$1100 for the cost of our website for the next 12 months. NECA is also sponsoring the breakfast and lunch for our contractor class on February 8, 2025.

A very heartfelt thank you to both of these great organizations for their continued support and help. As always, Dennis Steier gave an excellent presentation on changes to the 2023 National Electrical Code. Since the NEC is still on track to go into effect on January 1, 2025, we will continue discussing changes to this new edition for the next few meetings.

Please keep in mind that the 2023 NEC Sections 210.52(C), 230.67, and 314.27(C) are not mandatory until July 15, 2026. In addition, the requirement for GFCI protection for personnel for receptacles over 125-volt listed in the 2023 NEC Section 210.8(A) and the requirement for GFCI protection listed in 210.8(D) (8), (9), (10), and (11) is not mandatory until UL Standards 943 and 101 are revised. **Make sure you check with your respective electrical inspector before you do any installation covered by these sections!**

After July 2024, any license renewals for contractor, master, or electrician licenses will be for two years. With this next renewal, you will pay a fee for two years. When you renew again two years later, you will be required to have 12 hours of continuing education for each license that is being renewed and will pay a

Continued on page 3

JANUARY 13, 2025 Code Program

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

The program for January will be a continuation of the December, Code Updates. The presentation will be directed by Dennis Steier and cover the Code Sections that will be enforced beginning on this month. Dennis will also touch some of the Code Articles that are being delayed. This presentation will be a review/comparison of each section of the Code updates from 2017 to present.

Feel free to participate by asking questions and voicing your concerns.

Bring a friend and enjoy the program.

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

See you Monday Evening, January 13, 2025, at 6:30pm.

Stay Alert! Work Smart & Stay Informed!

LG&E NEWS

Off/ On Scheduling

The demand for off/ on's has continued to grow. The schedule for both, overhead and underground off/on's have consistently stayed at 4-6 weeks out. If you know early on in a project that an off/ on will be required, please plan ahead and reach out to the electric locator to get on the schedule. However, if an appointment changes or is no longer needed, please notify the locator as well so that crews aren't dispatched for no reason. At times, other time slots can be available but may require flexibility on the time. As always, discuss with the appropriate electric locator to see what options are available to you.

**Submitted by Joel McCauley
Team Leader Electric Design Svcs
LG&E and KU Energy LLC**

JANUARY Code Questions

1. Can a 10-ampere circuit branch circuit be installed per the 2017 NEC? Where would you find this answer in the 2017 NEC ?

YES NO

Section_____

2. Does a material handling magnet require overcurrent protection? Where would you find this answer in the 2017 NEC?

YES NO

Section_____

3. Does the 80% restriction for a enclosed overcurrent protective device on circuits over a 1,000 volts? Where would you find this answer in the 2017 NEC?

YES NO

Section_____

4. Is a electrical panel required to be installed in each apartment of a apartment building? Where would you find this answer in the 2017 NEC?

YES NO

Section_____

5. How many days are you allowed to leave up your Christmas decorations? Where would you find this answer in the 2017 NEC?

- A) 30 days C) 60 days
B) 90 days D) None of above

Section_____

6. Can wire pulling compound be use in a Iso-lated power system in a hospital? Where would you find this answer in the 2017NEC?

YES NO

Section_____

Code Corner

Article 210

At last months meeting in covering the *NEC 2023* changes there was good participation from the attendees, which makes for a good meeting. When we get input and feedback it encourages more people to get involved in the meeting.

One of the changes that came up that generated involvement was the ten ampere circuits in dwelling units, which will not go anywhere and is something added that I do not really think was needed. First, the breaker manufacture making 10 -amp breakers and the wire manufactures make a 16 AWG NM cable. You would not be able to put as much load on the circuit as well.

Section 210.23 Permissible Loads, Multiple-Outlets Branch Circuits, 10 ampere Branch Circuits-Permitted and Not Permitted. There was a revision made to the section to give direction to the user of the *Code* to understand how to install a 10-ampere branch circuit if they chose to do so. The 10-ampere branch circuits can supply lighting outlets, lighting circuits for bathrooms and laundry area exhaust fans within the dwelling units, and a gas fireplace unit served by an individual branch circuit. A 10-ampere branch circuit **cannot supply** receptacle outlets, fixed appliances (except as permitted for individual branch circuits). Garage door openers or laundry equipment.

For instance, when the installer installs or the AHJ inspects an installation involving a 10-ampere branch circuit, the above information will provide guidance to ensure it is following the *2023 NEC*. Installing a 10-ampere branch circuit is your choice, but if you do you must follow the *2023 NEC* guidelines. I do not really believe there will be a cost savings advantage with this change, but I have been wrong on things in the past.

Hope that everyone and your family had a joyous and wonderful Holiday season and look forward to seeing you for the 2025 meetings and bring a friend.

Submitted by Dennis Steier

Top Three Code Violations Louisville Metro Inspections JANUARY 2025

These violations are costing you time and money.

1. **NEC Article # 250.64(B)(2) Exposed to Physical Damage.**

A 6 AWG or larger copper or aluminum grounding electrode conductor exposed to physical damage shall be protected in rigid metal conduit (RMC) intermediate metal conduit (IMC), rigid polyvinyl chloride conduit (PVC) reinforced thermosetting resin conduit Type XW (RTRC-XW), electrical metallic tubing (EMT), or cable armor.

2. **NEC Article # 250.146 Connecting receptacle Grounding Terminal to box.**

An equipment bonding jumper shall be used to connect the grounding terminal of a grounding-type receptacle to a grounded box unless grounded as in 250.146(A) through (D). The equipment bonding jumper shall be sized in accordance with table 250.122 based on the rating of the overcurrent device protecting the circuit conductors.

3. **NEC Article # 230.2(E) Identification**

Where a building or structure is supplied by more than one service, or any combination of branch circuits, feeders, and services, a permanent plaque or directory shall be installed at each service disconnect location denoting all other services, feeders and branch circuits supplying that building or structure and the area served by each. See 225.37.

4. **NEC Article # 230.26 Point of attachment**

The point of attachment of the overhead service conductors to a building or other structure shall provide the minimum clearances as specified in 230.9 and 230.24. In no case shall this point of attachment be less than 3.0 m (10 ft) above finished grade.

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*

Presidents' Letter Cont'd

fee for two years. Call the department at (502) 573-2002 with any questions.

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 January 13, 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*

!!!! ECHL'S CONTRACTOR CLASS !!!!

Mark your calendar for February 8, 2025 for ECHL's Annual Contractor Class. Class will be held at the Elk's Lodge again this year with Lunch provided. Cost has remained the same. Members \$70. Non-Members and Pay-at-Door - \$125. There is a registration form enclosed in this Wire or you can find print one from our Website ECHLKY.COM. Any questions, please contact Denise Arnold (502) 491-5010 or Marilyn Boudreaux (502) 528-9319.

Come out and join us.

Avoiding Problems with Battery-Powered Tools

Battery-powered tools reduce cord management dramatically, but still present other safety issues.

Battery-powered tools have had a strongly positive effect on productivity in the field. And they confer a safety advantage by eliminating tripping hazards (and, to an extent, shock hazards) from misuse of portable cords.

However, the safety advantages can be moot if the use of these tools leads to a “no dangers to even think of” mindset. Other dangers do exist. Consider these categories:

Batteries

- Industrial-grade, battery-powered tools use lithium batteries. Don't leave them out in the sun.
- If you drop a battery while changing batteries (or drop the tool with the battery attached), stop to give it a careful visual inspection. If the case is cracked or damaged in any way, take that battery out of service.
- Don't overcharge the batteries. While most charging systems have some form of overcharge protection, you still want to remove batteries once they are charged. Just as you don't toss a hairdryer into an occupied bathtub and rely on the GFCI to protect the occupant, don't rely on automatic protection to cover for sloppy charging practices.
- Don't run a battery charger near sources of flammable vapors.

When running the portable cord to a battery charger on a job site, follow the recommended safety procedures for portable cords (i.e., run each cord in a way that doesn't create a tripping hazard).

Bits and blades

- If the job will involve much use of drill bits, saw blades, etc., start the job with a new bit or blade. A slip due to a dull tool might damage more than just the work surface. If there's only a bit of such work to do, then be sure to clean the blade before using it. Dirty blades are almost as bad as dull ones.
- Use the proper bit or blade for the material being worked on.

If the tool vibrates, makes an uneven cut, or exhibits other signs of a loose or misaligned cutting bit or blade, stop and correct the problem.

Piece under work

- Whether your tools are battery-powered or cord-connected, always secure the work with clamps or other devices. A tool can be safely handheld, the piece under work never can.
- If working with wood, consider nailing or screwing down a loose workpiece. For metal, it may be prudent to drill a bolt hole or two for the same purpose.
- If cutting wood, score the whole length of the cut mark to about 1/16th or so before using the saw. This will prevent

splintering of the top layer of the wood.

- An alternative to scoring is to tape the top and bottom of the board along where you will mark the cut line. Taping is also effective for preventing splinters due to drilling if you are using the correct bit and drilling speed and pressure.
- A third trick is to clamp the wood to a sheet of foam insulation; this is something you're likely to see in residential construction.
- When sawing wood, don't put the cut mark between supports such that the board will sag inward toward the saw blade. This will cause the blade to bind and give you a serious injury. The typical sidewinder saw has the motor on the left and the blade on the right. You want the supports on the left so the part being cut off (on your right) falls away from the saw. In some cases, the part being cut off is too big and too heavy to not also be supported; set this up so the weight of the saw is not causing the cut line to bow downward.
- Never hold the work with your free hand; it's a good way to lose a finger. Or two.
- Wear work gloves when handling the piece or cleaning the work area.
Clean up scrap, shavings, etc., between each tool operation or sooner if need be.

Work methods

- Never force the tool to work with a low battery. It can easily damage the tool motor and the battery, but it's also a way to cause a slip that causes an injury.
- Avoid binding with a saw, which can cause the workpiece to fly or the tool to break, by using a smooth motion.
- To avoid bit jumping, drill a pilot hole.
- If drilling a deep hole, drill partway and then pull the bit out to clear the hole then resume drilling.
- If driving a fastener with a drill, apply soap to the shaft before driving it in. This reduces the load on the motor, the load on your wrists, and the load on your shoulder while also reducing the chance of popping a screw into your face. Keep a bar of soap in your bit kit.
- Don't use a Phillips bit on a square drive screw head; this can cause bits of hardened steel to fly at you.
- Always wear safety glasses when using power tools. Put them on when you pick the tool up, and take them off only when you are ready to put the tool away.

If the work will release much dust or the wrong kind of dust, be sure to use the appropriate dust collection attachment. Along with that, wear the appropriate respirator. For example, if using a side grinder to cut a bolt or remove a stripped nut, wear a K95 or better respirator so you don't breathe those particles into your lungs. Keep the mask on until you are done cleaning up the dust.