



# THE WIRE

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## FEBRUARY 2022

### **PRESIDENTS LETTER**

Our January 2022 general membership meeting was another well attended event with 52 members present. A huge thanks goes out to Shawn Corrigan for his presentation on issues that some organizations are having with the 2020 National Electrical Code. Kentucky has never amended this electrical code and there is no need to start now. In addition, our industry is negatively being impacted by the continued delay in the adoption process.

The 50/50 drawing was for \$47 and was won by Jim Crask. Our February 14, 2022 presentation will be given by ABB/Blackburn on Article 250 Grounding and Bonding. I think we can all agree that Article 250 can be somewhat confusing at times. We have a six-hour continuing education class for contractor electrical license renewal scheduled for Saturday February 12, 2022 at the Elk's Lodge. The class begins at 8 am with sign-ins beginning at 7:30 am. Lunch will be provided. We are planning on presenting information on taxes, CDL safety, and insurance coverages.

We have been told that the Department of Housing, Building, and Construction is giving license holders until May 16, 2022 to obtain their continuing education requirement(s) that may have been delayed under the State of Emergency. Also, apparently the Department's online license search is down. So, for more information, please call the Department at (502) 573-2002.

Hope you will be able to attend the February 14<sup>th</sup> 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

### **\*\*\*\* CONTRACTOR CLASS \*\*\*\***

**Scheduled for Saturday Feb 12, 2022**

**ECHL is Sponsoring a Contractors Class. It is Scheduled for Saturday, February 12, 2022.**

**It is getting late to mail in your application, You need to call Denise or Marilyn to reserve you spot.**

**You can reach Denise at (502) 491-5010 or Marilyn at (502) 528-9319, they will reserve your spot.**

**Cost will remain the same: \$70 for Members, \$100 for Non-members and at the door. \$125.**

**You can also obtain an application from our website. Go to the "Calendar/Class" tab at the top of the page. Scroll down to the "Registration Form" print out the registration form, sign it, and bring it with you to the class on Saturday. Make you checks payable to ECHL for the fee. Lunch will be provided at the class.**

**We look forward to seeing you at the class.**

**FEBRUARY 14, 2022 Code Program  
Sign-in 6:30 P.M. - Program at 7:00 P.M.**

**ELKS LODGE # 8 - 2824 KLONDIKE LN -**

Our February 14, 2022 presentation will be given by ABB/Blackburn on Article 250 Grounding and Bonding. And covering NEC Article 250.

Please bring a friend.

We encourage you to participate by asking questions.

See you Monday Evening at 6:30 pm.

Dennis will go over the Code Questions in the February 2022 Wire.

Stay Informed, Work Smart & Stay Alert!

### JANUARY Code Questions

1. A number 12/5 type G 75c Flexible cord is feeding a machine that requires 480 volts 3 phase with a neutral, what is the maximum ampacity of this flexible cord?  
A) 29.6                      C) 24.8  
B) 31                          D) 28
2. If you were looking for information in the NEC regarding Feeders which chapter would it be under?  
A) 3                              C) Annex A  
B) 2                              D) None of Above
3. What size overcurrent device would be required to protect number 18 AWG Copper?  
A) 10                            C) 8  
B) 6                              D) None of above
4. You have an indoor application that required you to install an enclosure that would be exposed to Corrosive agents, what NEMA type enclosure would be required.  
A) 4X                            C) 6P  
B) 3X                            D) 4
5. You have a service drop that is passing by a window that is designed to open, what clearance is needed from the window?  
A) 4'                              C) 6'  
B) 3'                              D) 900mm
6. You are tapping a 20 amp branch circuit conductor for fixture wiring which would require you to install a 60 foot run, what size AWG conductor would be required?  
A) 14                            C) 16  
B) 18                            D) 12

### Code Corner

January 2022  
Food for Thought

Well, we are starting a New Year and thinking we have this devastating virus somewhat under control and here come another variant. Hopefully we can get this thing behind us eventually and get back to some type of normalcy in our life.

Now that we are in 2022 the 2023 *NEC* we be out in September and we haven't gotten the 2020 *NEC* approved yet in the State of Kentucky and with everything that is going on I would be surprised if it will be approved before the 2023 *NEC*, We can only keep trying to get this done for the safety and well-being of the citizen of our Commonwealth.

90.1(A) of the 2020 *NEC* is **Practical Safeguarding**: The purpose of this *Code* is the practical safeguarding of persons and property from hazards arising from the use of electricity. This *Code* is not intended as a design or instructional manual for untrained persons. If a legislator would actually read this he or she would have a hard time defending voting not to accept this *Code* in the entirety without exceptions.

The *NEC* is on a Three year cycle because electrical industry changings daily with advancements in new technology that could enhance the purpose of this *Code* and possibly save a life or a building from possibly burning down. Remember the *NEC* is the minimum standard for an electrical installation, you can go beyond the requirements of the *NEC* if you would like too.

Everyone one thinks it not going to happen to me our family, but we cannot control that and sometimes it could possibly hit home and you are yours could be effected. Revisions to the *NEC* are unfortunately driven by some else's misfortune of someone losing a loved one that could have possibly been avoided though the technology that is now available.

I hope everyone has a Happy and Prosperous and Safe 2022, we can all pitch in by follow the 90.1 The Practical Safeguarding persons in our everyday electrical installations.

*Submitted by Dennis Steier*

### LG&E NEWS

#### 400-Amp Meter Base

All of you are aware of the shortage of 200-amp meter bases in our region. Unfortunately, the LG&E does not have any influence over the situation. We are aware and sympathize with the quandary many of you face. However, we cannot compromise our standard due to the situation.

However, we are doing what we can to support a solution to the problem. One of those solutions is to allow the installation of 400-amp meter bases to be installed due to the lack of 200-amp. Several electricians have done so only to be turned down from our service crews. One of the reasons is because of the 5<sup>th</sup> terminal in the cabinet as well as the assumption the service is 3-phase.

Our regular meter will fit with no problem and we have informed our service crews that this is acceptable to make them hot.

If you run into a problem with this situation, contact the electric locator as soon as possible to get it corrected.

We apologize and are sorry for the inconvenience any of you have experienced.

*Submitted by Henry Ford  
Team Leader Electric Design*

#### Dues Renewal

It is time to re-new your ECHL membership. Invoices were included in the September Wire. Your membership is very 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 members 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 will continue to look for all of our past members.

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!!!**

### Top Three Code Violations Louisville Metro Inspections

#### JANUARY 2022

These violations are costing you time and money.

1. Conductors installed on buildings, structures or poles shall be protected against physical damage as provided in 240.50.

NEC Article # 225.20  
Protection Against Physical Damage

2. In a multiple occupancy building, each occupant shall have access to the building's supply disconnecting means.

NEC Article # 225.35  
Access to Occupants

3. All non-current carrying metal parts of fixed, portable, and mobile equipment and associated fences, houses, enclosures, and supporting structures shall be grounded.

4. NEC Article # 250.190  
Grounding of Equipment

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**

### **Why Will Demand for Surge Protection Devices Increase?**

*Growing NEC requirements and new electrical applications will drive growth.*

On the final day of NECA 2021, Karla Zavala, who is currently responsible for several of ABB's surge protection devices (SPDs), discussed the importance of surge protection and why the need for SPDs will only continue to expand in her presentation, "Why the Increased Need for Surge Protection?"

First, Zavala defined what a surge is. Also known as transients, surges are brief overvoltage spikes or disturbances on a power wave form that range in length from 1 nsec to 100  $\mu$ s, according to the IEEE standard. While 80% of surges are internal disturbances (e.g., load switching), 20% are external (e.g., lighting strikes), which are the more serious of the two. "They can be very devastating because they can damage your equipment," said Zavala.

That's where SPDs play an important role. They are defined as a non-linear protective device for limiting surge voltages on equipment, and there are four major reasons for surge protection: eliminating equipment failure, reducing operational downtime, reducing frequent maintenance or repairs, and complying with the NEC.

Next, Zavala explained the role the NEC plays in increasing the demand for SPDs. She noted there are currently eight locations in the NEC that define SPD requirements: Sec. 708.20(D), Sec. 700.9, Sec. 695.15, Sec. 694.7(D), Sec. 670.6, Sec. 645.18, Sec. 620.51(E), and Sec. 230.67(A). And each new version of the NEC is expected to continue to add new requirements for SPDs. "This further validates why we'll continue to see the need for surge protection moving forward," she added.

Zavala then defined the four types of SPDs: Type 1 (line side or load side), Type 2 (load side), Type 3 (point of utilization), and Type 4 (din-rail). It's important to understand the Code and requirements when choosing the type of SPD to use.

Lastly, Zavala described applications for SPDs, such as elevators, escalators, moving walkways, outdoor

### **Surge Protection Cont'd**

lighting, motor control centers, fire pump controllers, and more. Newer ones that she says will continue to grow in importance include LED signage such as billboards, which are elevated and susceptible to lighting strikes, and electric vehicle chargers, which require SPDs inside of charging stations and the buildings to which they're connected.

*Source: Elliw Coggins, Electrical Construction Magazine – Published – October 12, 2021*

### **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](mailto:glenn.pifer@jefferson.kyschools.us) or at 502-500-0668 to arrange for delivery or pick up.

Thanks for your support!

### **Answers to DECEMBER Code Questions**

1. 16, 240.5 (B)(4)
2. Yes, 110.26(E)(1)
3. Yes, 240.41(B)
4. No, 300.5(B) & 300.9
5. C, 348.24 Chapter 9, Table 2
6. Yes, 404.12 A&B