



THE WIRE

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NOVEMBER 2020

President's Letter

We are moving into the month of November and local, state, and national elections. I think we can all agree that the year of 2020 has really been something. I hope this newsletter finds everyone doing as well as can be expected!

Very little has changed regarding our membership meetings since the last newsletter. The Executive Board had another phone conference call in October to discuss resuming our monthly meetings. Again, after a healthy discussion, we reached a consensus to hold off meeting in November and December. We have another conference call scheduled for December 16th to discuss options for after the first of the year. Like everyone, we are banking on 2021 being a better year.

Kentucky is under a State of Emergency. As a result, Housing, Building, and Construction has suspended the continuing education requirements for license renewal. However, the Department still wants payment sent in like normal. **Once** the state of emergency is lifted, license holders will be given 120 days to obtain their continuing education. For more information, please call the department at (502) 573-2002.

I am very pleased to announce that a commissioner has been appointed for Housing, Building, and Construction. His name is Rick Rand and from everything I have heard, he was a very good appointment.

In closing, don't forget our website, www.echlky.com, or our Facebook page for ongoing information. Let's all continue to hope and pray that things will eventually return to some semblance of normalcy and that we can get back to business.

As Always Stay Safe and Work Safe
Steve Willinghurst
ECHL President

ECHL Monthly Code Programs

Due to the decisions of the Governor's mandates, during this health emergency, we have been forced to cancel our Code Programs until 2021.

These are so many restrictions, due to COVID-19, it is impossible to move forward with a large gathering at this time. It will be difficult to manage until this "State of Emergency" has been lifted and businesses are allowed to open back up. This year has been so difficult for all, we're praying for a better 2021 New Year!

Unfortunately we decided to not hold our Code classes for the remainder of the year. Also, it will take awhile to get our programs approved thru the State and prepare for the monthly Code Class, therefore it may be February 2021, before we can obtain the approvals thru the State and get things set up to start the regular monthly meetings again. Hopefully 2021 will be a better year.

Our Board is meeting thru conference calls to discuss where we stand on this pandemic and how to address our members needs, some of them need their credit hours now.

We will mail out a Wire each month to inform you of our decisions based on the "State of Emergency" we are in at the present.

Frankfort stated that all licenses will be renewed without the credit hours during pandemic. They are keeping track of those that renewed without the required hours and will allow you 120 days to make up those hours once the "State of Emergency" has been lifted. 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.

You can also access our website to keep up to date on when we will resume our classes. You can also go online and read the minutes of our General Membership meetings

NOVEMBER Code Questions

1. You have exposed live parts on both sides on a 480v/277v system what is the required minimum clear distance? Where would you find this answer in the 2017 NEC?

_____ Section _____

2. In a multiple occupancy building with no maintenance electrical provided, does each occupant have to have access to the supply disconnecting means? Where would you find this answer in the 2017 NEC?

Yes No

Section _____

3. What is the smallest size single conductor can be installed in a cable tray for a service raceway? Where would you find this answer in the 2017 NEC?

_____ Section _____

4. Cast metal boxes and conduit bodies shall be required to have a wall thickness of ___ inch? Where would you find this answer in the 2017 NEC?

_____ Section _____

5. Can an AC General Use snap switch be used as a motor disconnecting means? Where would you find this answer in the 2017 NEC?

Yes No

Section _____

6. How much weight can the screw shell of a lamp holder support per the 2017 NEC? Where would find this answer in the 2017 NEC?

October Code Answers

- | | |
|--------|--------|
| 1. B | 4. Yes |
| 2. yes | 5. No |
| 3. No | 6. No |

Code Corner

Submitted by Dennis Steier

Section 230.71

There were some changes made to Section 230.71 in the 2020 NEC that has been a standard that most electrician practices for years. The 6 disconnect rule for services that did not require a main disconnect, if you could shut the service down with not more than 6 disconnecting means.

The change did not entirely change the rule but has if the 6 disconnecting means are in a single enclosure without main disconnect. So what does this mean, if you look at the requirements in 230.71 (B) you will see what can be acceptable and still use the 6 disconnect rule.

230.71 (B) States that two to six service disconnects shall be permitted for each service permitted by 230.2 or for each set of service entrance conductors permitted by 230.40, Exception No. 1, 3, 4 or 5. The two to six disconnecting means shall be permitted to consist of a combination of any of the following.

1. Separate enclosures with a main service disconnecting means in each enclosure.
2. Example of (1) would be a service to a through with 6 disconnects.
3. Panelboards with a main service disconnecting means in each panelboard enclosure
4. Switchboards where there is only one service disconnect in each vertical section where there are barriers separating each vertical section.
5. Service disconnects in a switchgear or metering center where each disconnect is located in a separate compartment.

Just something to keep in mind if the 2020 NEC is every adopted by the State of Kentucky.

LG&E - Turn Downs

LG&E desires to do everything in our power to connect customer's services in a timely and efficient manner. Unfortunately, it is not always possible due to problems discovered during the connection phase of the project. The contractor crews used by the Company must turn down several services a week due to insufficient issues. The most common problems are nicked cables, leads that are too short to reach the termination points to the underground transformer or splice box and debris that covers up or hinders the contractors from getting to our equipment.

This is just a reminder to monitor your job site to make sure there are no obstructions and the wires are long enough to energize the service. We understand that time is money, however, safety is of the utmost importance to our crews as well as our customers.

Please help us resolve these issues so that every customer is a happy customer..

Thank you for your cooperation.

Top Three Code Violations

Submitted by Arnold Hornback

These violations are costing you time and money.

1. Wire connectors or splicing means installed on conductors for direct burial shall be listed for use. NEC Article # 110.14(B)
2. Where a raceway enters a building or structure from outside, it shall be sealed.
NEC Article # 225.27
3. Vegetation such as trees shall not be used as supports for overhead service conductors or service equipment.
NEC Article # 230.20

Please review the NEC articles associated with each violation as a reminder to follow through.

We hope this will help save you money on inspection fees by reviewing the articles and making sure you have

Preplanned Post - Installation Inspections: Do you need periodic testing of water features after the work is complete?

New Section 680.4 in Article 680 in the 2020 *National Electrical Code* enables the authority having jurisdiction (AHJ) to require periodic inspection and testing of swimming pools, fountains and similar installations such as splash pads, wading pools and decorative water areas in parks. This new section is intended to permit or require inspection and testing of these installations after the initial one or two visits during construction.

Inspectors will usually do an inspection of the initial rough-in of the swimming pool or fountain and again after the installation is complete before a certificate of completion for the project has been issued. Once these initial checks are done, many of these installations are not required to have any follow-up inspections. Does the *NEC* have the mandate to require the inspection and testing of any electrical installations after construction?

To answer this question, go back to the purpose and scope of the *NEC*, as covered in 90.1 and 90.2. Section 90.1(A), "Practical Safeguarding," states: "The purpose of this *Code* is the practical safeguarding of persons and property from hazards arising from the use of electricity."

The *NEC Handbook* further states the *NEC* has "primary responsibility for documents on minimizing the risk of electricity as a source of electric shock and as a potential ignition source of fires and explosions. It shall also be responsible for text to minimize the propagation of fire and explosions due to electrical installations."

There is no mention of construction, installation or testing, and no time frame is mentioned. Going further, 90.1(B), "Adequacy," has the following text:

"This *Code* contains provisions that are considered necessary for safety. Compliance therewith and proper maintenance result in an installation that is essentially

Preplanned Post-Installation Cont'd

free from hazard but not necessarily efficient, convenient, or adequate for good service or future expansion of electrical use.”

This text does deal with proper maintenance for good service or future expansion of the electrical system. In addition, an informational note helps explain the requirements in 90.1(B) as follows: “Hazards often occur because of overloading of wiring systems by methods or usage not in conformity with this *Code*. This occurs because initial wiring did not provide for increases in the use of electricity. An initial adequate installation and reasonable provisions for system changes provide for future increases in the use of electricity.”

At least the informational note provides insight about the initial installation and reasonable initial provisions for future increases, but it does not mention maintenance and testing after the certificate of occupancy.

As can be seen by the scope statement in Section 90.2(A), the *NEC* covers the installation and removal of electrical equipment and does not mention anything about dealing with existing equipment maintenance and testing. The actual text in 680.4 uses permissive text, stating the AHJ shall be permitted to make inspections after Installation mandatory for periodic inspection and testing of swimming pools, fountains and similar installations. Making the text permissive solves the problem of coverage of these systems after the electrical installation is complete.

Typically, any electrical equipment near pools, fountains and other water installations involve highly corrosive conditions and, understandably, requires more maintenance than normal electrical installations.

The electrical equipment, exposed to chemicals added to the water for pools and similar applications, is more likely to suffer corrosion and other similar damage, thus reducing the life expectancy of the equipment and increasing the hazard to people using the pool or water feature. There have been numerous

cases where deterioration of electrical equipment and lack of adequate maintenance has caused fatalities.

Municipalities, counties and states should provide requirements for planned maintenance, inspections and testing of residential and commercial water features where people may be exposed to hazardous conditions due to deterioration of electrical equipment. Periodic maintenance and testing is required for electrical systems in hospitals, commercial buildings and industrial facilities with emergency lighting and emergency power systems. Qualified and licensed electrical contractors should add testing and maintenance of residential and commercial pools and other

Dues Renewal

It's time to re-new your ECHL membership. Invoices were included in the September Wire. Your membership is especially important to us, at this time of uncertainty. We look forward to getting back to our monthly routine of serving providing our member with up to date training. I will include an New Membership application in this newsletter and each Newsletter to follow. Please help us build up our membership so that once this “State of Emergency” is lifted we get back to serving your. I know Denise Arnold and myself miss everyone and are looking forward to seeing you at our monthly meetings.

Support Our Industry

**** Electrical Equipment Needed ****

ECHL continues our committee to supporting the electrical industry and the training required to support the upcoming trade participants. 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, material and electrical equipment items that are 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 and educating them for future apprenticeship courses. Old or new! Glenn will take it. Contact Glenn Piffer at 502-500-668 or glenn.pifer@jefferson.kyschools.us to arrange for delivery or pick up.