

Q&A Report: Falling Behind on Electrical Safety

Last Name	First Name	Question Asked	Answer Given	Answerer
Barber	Brad	I may have missed this, but who appoints the members of the committee(s) that help develop the NEC updates?	Members of the NEC Code-Making Panels are appointed by the NFPA Standards Council. The committee member process starts with the candidate applying. Applications are reviewed by the NFPA staff liaison and along with the chair of the technical committee (Code-Making Panel in the case of the NEC) and if applicable, the correlating committee chair, a recommendation is made to the Standards Council for action. The application process is open to any qualified individual and the application form can be downloaded from the "Technical Committee" page that is accessed from the Document Information page for the NFPA code or standard that someone is interested in participating in. The Document Information page for the NEC can be found at: https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70 .	
Barber	Brad	What responsibility do those committee members have to the people of the respective states and US as a whole?	The people who serve on NFPA technical committees generally represent organizations, associations, and companies (like APPA, for instance). Their responsibility is to whomever they are representing. However, the people who serve on state electrical boards or building code commissions are obviously responsible to the legislature, the governor, and the state residents they serve.	Meghan

Barber	Brad	Does NEC observe and address any differences in the physical environmental conditions between regions of the US?	There are requirements in the NEC that do address specific environmental conditions (such as frost and high temperatures) that are intended to be applied in those areas where those factors are present.	Jeff
Farthing	Richard	I've participated in the code development process in Virginia. It is my understanding that state law does not allow a separate NEC adoption. All the codes are reviewed and adopted at the same time by the Board of Housing and Community Development.	Thanks for this . . . VA is one of the states that lags behind in terms of the edition of the NEC the state uses. We'd like to see it reviewed and updated by a dedicated electrical board, in part because when it is considered along with the building code and the energy conservation code, it becomes a much bigger process to review all of those documents--and thus a slower process.	Meghan
Fuligni	Paul	Did your survey note any involvement by ALEC in the resistance to adopting NEC updates?	We haven't heard of any ALEC involvement. I am not an expert on ALEC but I do know part of their agenda is toward making states "business friendly." I think there is a good case to be made that freezing an electrical code in place holds back technology and creates a patchwork of regulatory regimes across the country. Neither of these are business friendly.	Meghan

Using the new NFPA CodeFinder™ tool I found three states and one city that reference NFPA 70E in administrative rule or statute. They are Alabama, California, Illinois and the City of Chicago. It is important to dig deeper on these references to fully understand the scope of the agency referencing the standard and who is impacted by this agency. Here is a link to the CodeFinder page:

<https://codefinder.nfpa.org/?country=United%20States%20of%20America&nfpanumber=70E>. I also

understand that the US Department of Energy references NFPA 70E for the facilities that fall under that agency's jurisdiction. As mentioned during the webinar NFPA 70E is a national consensus standard that is used by national and state occupational health and safety regulators as the "how to" document to achieve compliance with thier workplace electrical safety requirements.

MARCUS DAVID Is 70E a mandate by any regulatory agency?
with the cost of a 70E survey how many schools (upper ed? lower ed?) havef been participating?

We do not track that information, however it sounds like an activity that APPA might want to consider surveying.

Jeff

Jeff

heavily to states neglecting to stay current. The first is lobbying by the home building industry. In many states, home builders have a lot of influence and they oppose anything that they believe may add cost to residential construction. Quite often, the provisions they are most concerned with are actually more closely tied to the building code or the energy conservation codes, but the electrical code ends up in the mix because a lot of states try to do their updates all at once. However, as we saw in Kentucky, some state legislators are just very sceptical of anything regulatory, and may be misinformed about the nature of the electrical code and the way in which it is developed. For instance, we have had to counter mythes like: the code is developed by manufacturers (manufacturers sit on the technical committees but NFPA's rules on committee balance mean they cannot dominate a committee); NFPA is a federal agency (we're a private organization), and that each new edition of the code contains hundreds of new requirements (by updating every three years, the changes are generally iterative). Finally, due in part to the lack of understanding about codes and how they're developed, we've seen some legislatures get overwhelmed (quite unnecessarily) by the task of reviewing these and thus forego it. For this reason, we want to educate lawmakers about the NFPA

Martinez

James

why did these stats skip NEC updates?

Meghan

Mayotte	Marie	Will future versions of the code address demand factors for electric vehicle supply equipment?	In reviewing the First Draft Report for the 2020 NEC (accessible to the public by clicking on the "Next Edition" page at the NEC Document Information page) I did not see any demand factor requirements being included as a First Revision. There is some activity in Section 625.42 on calculating service and feeder loads based on the adjusted rating of an EVSE that is equipped with adjustable settings for the input current.	Jeff
Schunk	Steven	Is funding available on a federal level, for PPE to comply with NFPA 70E, such as grant money?	I am not aware of any such funding existing.	Meghan

Titus

Matt

Have there been studies that correlate timely adoption with updated codes with a reduction in electrical safety incidents?

available fire data to make a clear cut case that electrical fires and shock hazards rise (or don't fall) when a jurisdiction skips a cycle. One issue is that the available data on fire loss mostly looks at trends at the national level, so capturing state trends is more difficult. Another issue is that when the data is reported to the National Fire Incident Reporting System (which is the central repository for all fire incident data in the U.S.), generally information about when the structure was built (or under which code) isn't included. There are discussions underway about ways to address that, but the historical data does not contain that information. That being said, there are studies that have correlated the decline in shock injuries with the introduction of ground fault circuit interrupters. And, looking at the data from 1980 to today, there has been a steady decline in the number of electrical fires in the U.S. The most recently available data (analyzed by researchers at NFPA) found that there are an average of about 45,000 electrical fires each year, resulting in about 420 civilian deaths and \$1.4B in damages. In the 1980s, there are about 75,000 each year. This report from the Fire Protection Research Foundation provides a good overview of different data issues surrounding residential electrical fires (<https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and->

Meghan

Wellington

Wayne

Can you explain what are some of the major changes of the most current edition of NFPA 70 and the previous edition?

Thank you for you interest in the 2017 NEC. NFPA has a resource that you will find helpful in getting some insight on significant changes to the 2017 NEC. Available at no charge at the NFPA website is a series of videos that provide detail on a number of 2017 NEC changes. These videos can be viewed at: <https://www.nfpa.org/NEC/About-the-NEC/Changes-to-the-2017-NEC>.

Jeff

West

Danny

does the NFPA offer study materials for those seeking to prepare for licensing exams?

The NEC and NEC Handbook are the best resources that we currently offer for candidates preparing for an electrician's licensing examination. Additionally, if you are a Facebook or Twitter user, you can access our NEC Challenge App that is compatible with both Android and IOS devices. This App is loaded with questions based on either the 2014 or 2017 edition of the NEC. There is free trial download and then a subsequent nominal cost to access the Code questions.

Jeff

Zimmerman

Kris

What does the relationship between NFPA and the Insurance Industry look like?

Representatives from the insurance industry sit on many NFPA technical committees. The NFPA website has "Doc Info" pages for each NFPA code and standard. On these pages, you can click to see the members of the committee that worked on a particular document. Individuals with an "I" after their names represent an insurer. Through NFPA's work on reducing losses from wildfire, the Association has worked with insurers to educate consumers about wildfire dangers to their property (<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA/Become-a-Firewise-USA-site/Program-benefits/Insurance-discounts-for-USAA-members-in-seven-states>). In addition, the Fire Protection Research Foundation, NFPA's research affiliate, maintains a Property Insurance Research Group, which is a forum to discuss and recommend research topics related to fire loss (<https://www.nfpa.org/News-and-Research/Resources/Fire-Protection-Research-Foundation/Research-planning/Property-Insurance-Research-Group>).

Meghan