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M E M O R A N D U M

(AMENDMENT)

TO: Code-Making Panel 2

FROM: Sarah Caldwell, *Technical Committee Administrator*

DATE: July 10, 2019

SUBJECT: Final Results Amendment 70-11 Letter Ballot on the Proposed 2020 Edition of the *National Electrical Code*®.

In accordance with the *Regulations Governing the Development of NFPA Standards*, the final results show the Amendment **HAS NOT** achieved the 2/3 majority vote needed to recommend approval of the Association Action by the Technical Committee. As a result, the recommendation to the Standards Council is to return to previous edition text.

14 Members Eligible to Vote
0 Ballots Not Returned

The number of votes needed to recommend approval of the Association Action is **10**.
(14 eligible to vote - 0 not returned - 0 abstentions = 14 × 0.66 = 9.24)

The attached report shows the number of affirmative, negative, and abstaining votes as well as the explanation of the vote.

The transcripts from the Annual 2019 NFPA Tech Session are now available at: www.nfpa.org/techsession.

AMENDMENT BALLOT TEXT

Code-Making Panel 2
NFPA 70, *National Electrical Code*®
Amendment No. 70-11: Accept an Identifiable Part of Public Comment No. 1381
June 2019

IF YOU AGREE TO SUPPORT AMENDMENT 70-11 as recommended by the membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.12 (A) Dwelling Units.
All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling ~~unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, or similar rooms or areas~~ units shall be protected by any of the following means ~~described in 210.12(A)(1) through (6)~~:

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-11 by the membership by vote at Tech Session, the recommended text is shown clean below. If no previous edition text exists, the text is simply deleted.

(A) Dwelling Units.
All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, or similar rooms or areas shall be protected by any of the means described in 210.12(A)(1) through (6):

Amendment No. 70-11: Accept an Identifiable Part of Public Comment No. 1381 Note: A DISAGREE vote would recommend previous edition text. Where no previous edition text exists the text is simply deleted.

Eligible to Vote: 14
Not Returned : 0

Vote Selection	Votes	Comments
Agree	7	
Mark R. Hilbert		Agree
John McCamish		Agree
Thomas A. Domitrovich		Agree
Alan Manche		Schneider Electric supports the expansion of AFCI's to complete the goals/objectives set by the CPSC in the late 90's when AFCI's were introduced to reduce residential fires and their entrance into the 1999 NEC®. The most recent statistics from the U.S. Fire Administration (USFA) show a 26% decrease in fires and 26% decrease in death/injuries from 2006 to 2015. AFCIs are contributing to this reduction because we have yet to find an AFCI breaker protecting a circuit where the electrical ignition source was identified as an arcing hazard. The USFA also reports that there are an estimated 6,600 residential garage fires every year with the leading cause being electrical. These fires cause an estimated 30 deaths, 400 injuries, and $457M in property loss. AFCI tripping needs to be accurately assessed via the diagnostic tools included in the breaker electronics. For example, an AFCI tripping circuit breaker on a microwave circuit could be a detected hazard in the circuit such as an arc fault or a ground fault and should not be assumed to be an unwanted trip.
Nehad El-Sherif		Agree

David W. Johnson		IEC supports AFCI technology and the safety it provides the consumer; however, we are concerned with the potential of unwanted tripping in bathrooms and garages. We would like to see continued testing of utilization equipment with AFCI's and data that supports further confidence in the use of AFCI protection on these circuits.
Frederick P. Reyes		Agree
Disagree	7	
Steve Campolo		I have disagreed with AFCI expansion previously with my negative vote during the regular cycle. My reasons remain the same; in addition to a lack of substantiation I am personally aware of many reports of false tripping and participate on a NEMA/AHAM task group that is documenting "reported" accounts of false tripping which, in my opinion is grossly understated. In addition I have witnessed a friend making a complaint about a microwave oven causing an AFCI breaker to trip and the response he received was to "buy a filter". THIS IS UNACCEPTABLE, further expansion of this technology is unwise until such time as false tripping is dramatically reduced. My company makes both receptacle and circuit breaker AFCI.
Christopher J. Pavese		Expansion of AFCI Requirements without substantiation.
Daniel Buuck		No substantiation was given to expand AFCI coverage. The panel should wait for the results of the NFPA Research Foundation study on AFCI effectiveness before considering expanding requirements for AFCIs. Nuisance tripping, which continues to be a problem affecting contractors, would likely increase with an expansion of coverage to bathrooms, basements and outdoor circuits.

Michael Weaver		No additional infomation or substantiation has been provided as to why this was sent back to CMP 2. Continued reports of nuisance tripping warrant concern for expanding the requirement of AFCI protection of 15- and 20- amp branch circuits to all areas of a dwelling. In addition a recent report was conducted by NFPA "Residential Electrical Fire Problem: Teh Data Landscape" was completed and based upon the report's findings there is clearly not enough data to access the effectiveness of AFCI's. More information and data should be gathered on the effectiveness of the devices. The time that this will take will allow manufactures time to continue to improve the devices so that nuisance tripping issues can be fixed.
Charles L. Boynton		There continues to be no data to support AFCI expansion. In addition, nuisance tripping should be addressed before further expansion.
Thomas L. Harman		I do not see any technical substantiation for the changes and expansion of the AFCI locations. It would help if there were compatibility studies for other motor-driven devices that could be connected to the outlets.
Mathher Abbassi		I have a personal experience where pumps and window AC caused AFCI tripping with minimal loads. I strongly feel that we should wait for the next NEC code cycle to full expansion, at that time the AFCI technology would have worked out all the problems.
Abstain	0	