



National Electrical Manufacturers Association

The association of electrical equipment
and medical imaging manufacturers
www.nema.org

December 6, 2022

Minnesota Board of Electricity
NEC 2023 Adoption Review Committee
Minnesota Department of Labor and Industry
443 Lafayette Road
St Paul, MN 55155

Re: **NEMA Supports Adoption of 2023 Edition of the National Electrical Code®**

Dear Members of the Committee:

The National Electrical Manufacturers Association (NEMA) is the leading trade association of the electroindustry industry, including electrical equipment and medical imaging manufacturers. The approximately 325 member companies manufacture products used in the generation, transmission and distribution, control, and end-use of electricity. NEMA member companies have a significant presence in the state of Minnesota, [employing over 36,000](#) manufacturing and engineering jobs and contributing [over \\$4 billion dollars](#) to the state's economy.

On behalf of the National Electrical Manufacturers Association (NEMA), I am writing to express support of the recommendation by the NEC 2023 Adoption Review Committee to update Minnesota's electrical code from the 2020 edition of the National Electrical Code® (NEC) to the 2023 edition of the NEC without amendment. The committee is to be applauded for their thorough review and vetting of key changes that will advance electrical safety for all Minnesotans.

As part of the review process, the committee sought input from stakeholders. Published in the committee's 11/17/2022 minutes is a letter from Housing First (HF) that outlines four proposed amendments that were considered by the committee. In response, I would offer the following comments:

Proposed Amendment 1: TIA for 210.8(F). HF proposes that section 210. 8(f) be deleted because a message to NFPA that a more rigorous technical review of the provisions it adopts is long overdue. The NEC is created through an exhaustive stakeholder consensus process that considers input from a balance of interests and reflects the collective knowledge of qualified electricians, electrical inspectors, manufacturers, testing lab personnel, and other professionals, including representation from the National Association of Home Builders (NAHB). That stakeholder consensus process requires supermajority support for any new modifications to the Code. This process provides multiple opportunities for the public to engage, and a Tentative Interim Amendment (TIA) is further opportunity to address technical requirements impacting a code or standard.

In fact, the recommendation is for 210.8(F) be delayed until 2026. The TIA and subsequent recommendation to delay demonstrates that the NEC includes a comprehensive and thorough technical review that is continuously working to identify issues and propose appropriate corrective action. The appropriate response is for the BOE to adopt the proposed NEC recommendation and for HF to engage in the 2026 NEC development process.

Proposed Amendment 2: 225.41/230.85 Emergency Disconnects. HF requests removing a requirement that has been in place for three years, which provides a safe way for first responders to remove power from subject structure they are trying to protect. Introduced in the 2020 edition of the NEC, this requirement received widespread support from multiple organizations including the National Association of Home Builders. Without providing any documented fire statistics, HF simply alleges the number of fires extremely low. The purpose of the provision is to advance safety for first responders which is and should be of paramount importance.

Proposed Amendment 3: 210.12(A) AFCI in Dwelling Units. HF requests removing the requirement for AFCIs, a fire prevention technology that has been in the NEC since the 1999 edition. The original call for better circuit protection came from the US Consumer Product Safety Commission in response to their concern over home electrical fires and the resulting deaths, injuries, and property loss. HF claims there is no data to support AFCI expansion. **While neither the 2020 NEC nor 2023 NEC expand AFCI protection in dwelling units**, according to the U.S. Fire Administration March 2020 report¹, overall trends from the report period 2009-2018 shows a reduction in fires, deaths, injuries, and dollar losses related to electrical malfunctioning.

HF claims the NFPA has not been able to demonstrate the effectiveness of AFCIs. This is a gross mischaracterization of the NFPA research, The research HF cites merely concluded that better data and analysis is needed, it did not make a conclusion on the actual effectiveness of AFCIs.

HF also cites nuisance tripping as a reason to roll back this important fire safety prevention technology. NEMA has published an Issue Brief² that highlights that appliances that meet product safety standards work extremely well with AFCIs. The Insurance Institute for Business and Home Safety also published a white paper³ that highlights the importance of AFCIs, and the rigorous testing required by product safety standards to recognize various arcing conditions generated by electronic devices.

Finally, I would like to address a misrepresentation of “states are removing AFCI requirements because of nuisance tripping.” HF stated in their written comments, that nuisance tripping is so widespread that 21 out of 45 states have removed or reduced AFCI requirements. Currently, there are 28 states in the USA that have adopted AFCIs as prescribed by the model code with no amendments. States which have previously amended AFCI requirements are now reversing themselves. For example, the state of Arkansas removed their AFCI existing amendment this year and Ohio is on track to remove their current amendment. Indiana is a state that had an amendment that removed AFCIs in their entirety but updated their residential code in 2019 to full AFCI adoption. In addition, the state of Massachusetts, amended their NEC adoption to go beyond the minimum model code, requiring AFCI protection for all 15- and 20-ampere branch circuits. HF’s proposal to delete AFCI’s in its entirety for dwelling units is inconsistent with the current and evolving status of the NEC and must be rejected because it would be a “rollback” in safety.

Proposed Amendment 4: 210.8(A)(6) Kitchens. HF has proposed limiting GFCI protection only to receptacles installed within 6 feet of a sink, with no substantiation supporting this rollback in safety requirements. Since the introduction of the GFCI in the 1971 NEC, published data⁴ from the U.S. Consumer Product Safety Commission (CPSC) show a decreasing trend in the number of electrocutions in the United States. Expanding GFCI protection is intended to support continuation of this trend.

Once again, NEMA urges the Minnesota Board of Electricity to maintain this tradition of excellence by adopting the 2023 edition of the NEC without amendment. If you have any questions or need further documentation, please contact Tim McClintock at Tim.McClintock@nema.org or (303) 749-9782.

Sincerely,

A handwritten signature in black ink that reads "Tim McClintock". The signature is written in a cursive style with a large initial "T" and "M".

Tim McClintock
Senior Technical Field Representative
Midwest Region

REFERENCES

¹U.S. Fire Administration – (March 2020) *Residential Building Fire Trends*

²NEMA – *AFCI Issue Brief*

³Insurance Institute for Business and Home Safety – *Electrical Fires and Arc-Fault Circuit Interrupter Protection*

⁴Consumer Product Safety Commission - *U.S. Consumer Pr*