

ACCA Template to Request Jurisdictions Not to Adopt GFCI Protection for Outdoor HVAC Equipment in 2020 NEC – Nuisance Trip Issue

Background:

The 2020 Edition of NFPA 70, the National Electrical Code (NEC) now requires ground fault circuit interrupter (GFCI) protection for outdoor outlets, which would include disconnects for HVAC/R condenser units and other outlets. The requirement is shown below.

“210.8(F) Outdoor Outlets. All outdoor outlets for dwellings, other than those covered in 210.8(A)(3), Exception to (3), that are supplied by single-phase branch circuits rated 150 volts to ground or less, 50 amperes or less, shall have ground-fault circuit-interrupter protection for personnel.”

ACCA and the HVAC/R industry have voiced concerns that currently available UL-Listed GFCI's installed on outdoor equipment would create substantial nuisance trips. Subsequently, a proposed amendment was submitted to delay the effective date by 2 years, but that was rejected last December. The ACCA Codes Subcommittee has recommended that members use this as a template to request local jurisdictions to delete the requirement when they consider adopting the 2020 NEC as their state code.

2020 NEC Amendment Proposal:

Based on the above, it is requested that 210.8(F) be deleted from state and local adoptions of the 2020 NEC.

Rationale – Nuisance Trips:

The industry's concern is that currently available UL-listed GFCI's installed on HVAC/R equipment would create substantial nuisance trips, thereby rendering such equipment useless. Testing conducted by equipment manufacturers has revealed that there are no GFCI devices currently available that provides adequate protection without nuisance trips. A suitable GFCI device must account for frequency, duration, and magnitude of the leakage current, and set thresholds which adequately protect individuals who may contact the equipment with a low probability of nuisance trips. The UL 943 standard for GFCIs is to be revised to address these applications.

In addition, ACCA has questioned whether there was sufficient justification for imposing the new requirement on outdoor A/C disconnects, other than those with receptacles. It should be noted that the State of Massachusetts deleted the above requirement when it adopted the 2020 NEC as its state code, presumably due to a concern for potential nuisance trips.

Who to Contact and When:

Although the 2020 Edition of the NEC is now available, most states and local jurisdictions may not adopt the latest edition right away, but instead continue to reference an earlier edition. A useful tool to determine what is adopted and enforced in your state can be found on NFPA's website at <https://www.nfpa.org/NEC/NEC-adoption-and-use/NEC-adoption-maps>. This link contains a state-by-state chart to determine which states are adopting the 2020 NEC, or which edition is currently in effect.

If you have any questions please contact ACCA's Manager of Codes & Standards at david.bixby@acca.org.