

**LOG OF MEETING**  
**OFFICE OF HAZARD IDENTIFICATION AND REDUCTION**

**SUBJECT:** National Fire Protection Association (NFPA) 70 National Electrical Code (NEC)  
Task Group on NEC section 210.8(F) Ground-Fault Circuit-Interrupter (GFCI)  
Protection for Personnel on Outdoor Outlets

**DATE OF MEETING:** February 28, 2022

**PLACE OF MEETING:** Virtual Meeting

**LOG ENTRY SOURCE:** Doug Lee, Office of Hazard Identification and Reduction (EXHR)

**COMMISSION ATTENDEES:** Doug Lee, EXHR  
Einstein Miller, Directorate for Laboratory Sciences (LSE)  
Kristen Talcott, Directorate for Engineering Sciences (ES)  
Ashley Johnson, Directorate for Health Sciences (HS)

**NON-COMMISSION ATTENDEES:**

David Humphrey, International Association of Electrical Inspectors (IAEI), Panel 2 Chair  
Michael Weaver, M&W Electric, NECA, Task Force Chair  
John McCamish, Int'l Brotherhood of Electrical Workers (IBEW)  
Dan Buuck, National Association of Home Builders (NAHB)  
Alan Manche, Schneider Electric  
Thomas Domitrovich, Eaton Corporation, NEMA  
David Johnson, Independent Electrical Contractors (IEC)  
Steve Campolo, Leviton  
Jeff Sargent, NFPA Staff Liaison  
John Hughes, Trane  
Dean Hunter, Minnesota Dept of Labor and Industry/IAEI  
Fred Reyes, UL  
Amanda Hickman, Leading Builders of America  
Jerry Daniel, Texas TDLR  
And other task group members and guests (contact NFPA for a complete list)

**SUMMARY OF MEETING:**

Mr. Weaver requested additional details and data from task group members to support task group actions for NEC 210.8(F), GFCI protection of personnel on outdoor outlets. Many task group members voiced concerns for unwanted tripping of GFCIs causing consumers to be without air conditioning in the summer months if the January 2023 effective date for NEC 210.8(F) is not postponed. Other members wanted to consider grounded conductor language in the NEC to address Heating Ventilation and Air Condition (HVAC) leakage current issues from air conditioning (AC) compressors. Another task group member indicated that terminations would also be needed on AC compressor equipment. The effective dates of the three applicable standards: *UL 943 GFCIs*, *UL 101 Leakage Current*, and *UL 60335 2-40 Heating Ventilation*

*and Air Conditioning (HVAC) Equipment* were also discussed.

A member of the Air-Conditioning, Heating and Refrigeration Institute (AHRI) discussed that AHRI has initiated a study on the Assessment of Incompatibility of HVAC Equipment and GFCI Breakers that will take approximately 6 months to complete. The study will investigate the root cause of nuisance tripping experienced by HVAC equipment product and ground-fault circuit-interrupters. The study would also consider potential solutions achieved by alternate methods such as grounding and changing HVAC and/or GFCI product designs.

Mr. Weaver asked for additional details of the data from CPSC. Mr. Lee indicated that the data is still being reviewed but does include more than the one incident provided to support the original 210.8(F) proposal. The data is also limited in detail since the source is often from death certificates. Many of the incidents involve technicians and homeowners working on air conditioners including outdoor, indoor and portable units. Mr. Lee suggested that the committee could use the data downloaded from the CPSC public portal until the CPSC data can be provided to the task group. A task group member agreed to provide the CPSC public portal data to the task group although he preferred that the data came from the CPSC.

CPSC staff will provide the electrocution data from CPSC epidemiologists when available and continue to participate in the next task group meeting scheduled for April 4, 2022.

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