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MEMORANDUM

TO: NEC® Code-Making Panel 7

FROM: Sarah Caldwell, *Technical Committee Administrator*

DATE: October 4, 2019

SUBJECT: NEC® Proposed Tentative Interim Amendment (TIA) No. 1474

The attached proposed Tentative Interim Amendment (TIA) Log No. 1474 is being submitted to you for ballot. This proposed TIA was submitted by Wade Elliott of Utility Services Group, Inc. and is endorsed by Doug Mulvaney, KOA, Kent Perkins, RVIA, Cliff Norton, Bellingham Marine, Dean Hunter, MN Dept of Labor/Industry, Keith Lofland, IAEI, Dave Watson, Southwire Company and Bruce Hopkins, RVIA.

This proposed TIA will be published for public comment in the October 2019 issue of *NFPA News* with a Public Comment Closing Date of November 7, 2019. Any public comments received will be circulated to the committee. Finally, the Standards Council will review and consider the issuance of this TIA.

In accordance with Section 5 of the *Regulations Governing the Development of NFPA Standards*, you are being balloted on the technical merits of the proposed TIA and whether this matter is of an emergency nature.

The ballot can now be accessed through the NFPA online ballot system at the following link: NFPA Ballot Link**.** The link will bring you to your profile page and once you sign in, select the My Committees tab and click on the blue Vote button which will direct you to the ballot site.

Please complete the ballot on or before **October 16, 2019 by 11:59PM (ET).**

While completing your ballot, please remember the following:

- **A comment is required for both Question No. 1 and Question No. 2 for the online TIA ballot. Comments must accompany all Negative, Abstaining and Agree votes.**
- **If you vote "Agree" on Question 1, simply add "Agree" to the comment field and if you vote "Agree" on Question 2, insert the applicable letter(s) selections in the comment field which can be found in the Instructions box on the ballot site.**

You must hit SUBMIT to SAVE your work**. Note**: the system session will time you out after 60 minutes; any work not submitted at that time will not be saved! You may return to finish or change your ballot at any time up to the closing date. Ballot comments exceeding 4,000 characters must be submitted in a Word document via email, to Sarah Caldwell at scaldwell@nfpa.org.

Note: Please remember that the return of ballots and attendance at committee meetings are required in accordance with the Regulations Governing the Development of NFPA Standards.

NFPA 70®-2020 Edition
National Electrical Code®
TIA Log No.: 1474
Reference: 551.71(F)
Comment Closing Date: November 7, 2019
Submitter: Wade Elliott, Utility Services Group, Inc.
www.nfpa.org/70

1. Revise 551.71(F) to read as follows:

551.71(F) GFCI Protection.

~~All 125-volt, single-phase, 15- and 20-ampere receptacles shall have listed ground-fault circuit-interrupter protection for personnel. The GFCI devices used in RV site electrical equipment shall not be required to be weather or tamper resistant in accordance with 406.9 and 406.12.~~

~~Informational Note: The percentage of 50 ampere sites required by 551.71 could be inadequate for seasonal recreational vehicle sites serving a higher percentage of recreational vehicles with 50 ampere electrical systems. In that type of recreational vehicle park, the percentage of 50 ampere sites could approach 100 percent.~~

Ground-fault circuit-interrupter protection shall be provided as required in 210.8(B). GFCI protection shall not be required for other than 125-volt, 15- and 20-ampere receptacles used in recreational vehicle site equipment.

Informational Note No. 1: Appliances used within the recreational vehicle can create leakage current levels at the supply receptacle(s) that could exceed the limits of a Class A GFCI device.

Informational Note No. 2: The definition of *Power-Supply Assembly* in 551.2 and the definition of *Feeder* in Article 100 clarifies that the power supply cord to a recreational vehicle is considered a feeder.

Substantiation:
The 2017 NEC included changes in Section 210.8 and CMP 7 did not have the opportunity to review and Correlate with Article 551 concerning the requirement of GFCI protection on 30- and 50- ampere receptacles in RV site equipment. This has introduced ambiguity about the application of 2017 NEC Section 210.8 new GFCI requirements with respect to 30- and 50-ampere receptacles supplying RV's. In numerous cases where the 2017 Code is in use debate has surfaced as to the applicability of the 210.8 requirements and has caused projects to be cancelled or shut down as a result.

During the 2020 Code cycle CMP 7 addressed the issue during both the First and Second Draft sessions. The panel, by votes of over 80% in both cases, determined that Section 210 requirements do not apply to the 30- and 50- ampere receptacles as these are considered feeders per the definition of a feeder in Article 100 and the definition of a Power Supply Assembly at Section 551.2. Furthermore, if GFCI protection were to be placed on the 30- and 50- ampere feeders the accumulative allowed GFCI leakage may exceed the limits of a Class A GFCI device.

This TIA seeks to return to Section 551.71 language contained in SCR 30 created by the NEC Correlating Committee with an additional sentence reinforcing the Feeder – Power Supply Assembly relationship of the 30- and 50- ampere power in RV Site Equipment.

By accepting the TIA the Code will be relieved of the ambiguous Code language and unnecessary GFCI protection of feeders. Of further concern is of the actions that users would perform to keep power on a circuit if a 30- or 50- amp device were to trip on GFCI. A common action is to clip off the ground pin on the feeder cord to the RV.

Further, waiting for the 2023 cycle keeps the ambiguity and potentially unenforceable nature of the 2017 Code in place for another three years.

Additionally, lost in the reverting back to the 2017 NEC language for the 2020 Code making process was an editorial move to 551.71(A) during the First Draft of the requirement for the 20 ampere receptacles to be weather resistant.

Emergency Nature: The NFPA Standard contains a conflict within the NFPA Standards or within another NFPA Standard. The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification of the action.

The emergency nature of this TIA is to fix serious correlation issues that would exist for the *Code* user whether you are an installer or enforcer. Due to the results of the rejection of CAM70-36 by CMP-7; and the reversion of 551.71(F) to 2017 Code Language; an inconsistency now exists with other Special Occupancies in Chapter 5. CMP-7 is still under the impression that the result of the rejection of CAM 70-36 should have resulted in reverting back to First Draft language *(last point of consensus)* rather than reverting back to 2017 *NEC* text.

This TIA is to adopt the language that was approved by CMP-7and the Coordinating Committee during their meetings for the 2020 NEC.

In all of the other Articles that are under the purview of CMP-7 where a power supply cord is used, the supply cord is considered a feeder and there are no requirements for Class A GFCI protection. Feeder conductors being extended to a marina-receptacles need to be protected at the 100 mA level, but this is ground-fault protection (GFP) of equipment, not Class A GFCI protection.

From the outset of the 2020 *NEC* revision cycle, the goal of CMP-7 was to remove the wide interpretation of 551.71(F) that existed in the 2017 *NEC* as a result of the then new requirements of 210.8(B). Without this TIA, we are right back to square one with inconsistent interpretation at 551.71(F).

Consider other Articles under CMP-7 purview: All of the reference *NEC* sections below would allow a cord and plug assembly without Class A GFCI protection.
545.22 Power Supply (A) Feeder. *The feeder shall include four insulated color-coded conductors, one of which shall be an equipment grounding conductor. The equipment grounding conductor shall be permitted to be uninsulated if part of a cable assembly.*
Informational Note: For temporary installation of feeder conductors see Article 590.
550.2 Feeder Assembly. *The overhead or under-chassis feeder conductors, including the grounding conductor, together with the necessary fittings and equipment or a power-supply cord*

listed for mobile home use, identified for the delivery of energy from the source of electrical supply to the panelboard within the mobile home.
550.10 Power Supply. (A) Feeder. *The power supply to the mobile home shall be a feeder assembly consisting of not more than one listed 50-ampere mobile home power-supply cord or a permanently installed feeder.*
552.43 Power Supply. (A) Feeder. *The power supply to the park trailer shall be a feeder assembly consisting of not more than one listed 30-ampere or 50-ampere park trailer power-supply cord, with an integrally molded or securely attached cap, or a permanently installed feeder.*

In all of these examples, the *Code* language clearly states that these power-supply cords are feeders and were never intended to have Class A GFCI protection. CMP-7 was very diligent and intentional with treating the installation in an RV Park the same. As determined by our predecessors on CMP-19, and now CMP-7, the installation of these conductors would be installed as a feeder as defined in Article 100, and not treated differently between the articles.

Finally, a change in the 2017 Code Language was not coordinated with (then) CMP-19 (now CMP-7) to allow this technical committee to insert language modifying or amending 210.8(B) for RV Site Equipment. CMP-19 should have had the option to either assert our ability to Modify or Amend 551.71 or to clarify that the 30- and 50- amp circuits are in fact feeders according to Article 100 and supported by 551.2 (Power Supply Assemblies) during the 2017 cycle.

A. The standard contains an error or an omission that was overlooked during the regular revision process.

B. The NFPA Standard contains a conflict within the NFPA Standard or with another NFPA Standard.

C. The proposed TIA intends to correct a previously unknown existing hazard.

D. The proposed TIA intends to offer to the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation.

E. The proposed TIA intends to accomplish a recognition of an advance in the art of safeguarding property or life where an alternative method is not in current use or is unavailable to the public.

F. The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification for the action.