

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959

CALIFORNIA BUILDING STANDARDS COMMISSION INFORMATION BULLETIN 20-01

DATE: April 15, 2020

TO: CBSC INTERESTED PARTIES
LOCAL BUILDING DEPARTMENTS
STATE AGENCIES AND DEPARTMENTS

SUBJECT: National Fire Protection Association Tentative Interim Amendments 17-2 and 17-4 regarding Article 625, Section 625.44(A), 625.54(New) and 625.56 (New), Article 590, Section 590.4(G) of the 2019 California Electrical Code based on the 2017 National Electrical Code.

This Information Bulletin is to advise the California Building Standards Code, Title 24, California Code of Regulations (Title 24) regulated community of Tentative Interim Amendments (TIA) 17-2 and 17-4 issued by the National Fire Protection Association (NFPA) and applying to the 2017 National Electrical Code (NEC) Article 625, Sections 625.44(A), 625.54(New) and 625.56 (New), which address the GFCI protection gap along with the in-use cover in order to support inclusion of 240V portable Electric Vehicle (EV) charging. Article 590, Section 590.4(G) allows open splice permitted for temporary installation, provided that similar criteria to the construction site rule is met.

Pursuant to Section 5 of the NFPA Regulations Governing the Development of NFPA Standards, the National Fire Protection Association issued the following TIA 17-2 to NFPA 70®, National Electrical Code®, 2017 edition. The TIA was processed by the NEC Code-Making Panel 12 and the Correlating Committee on National Electrical Code, and was issued by the Standards Council on December 1, 2016, with an effective date of December 21, 2016.

Pursuant to Section 5 of the NFPA Regulations Governing the Development of NFPA Standards, the National Fire Protection Association issued the following TIA 17-4 to NFPA 70®, National Electrical Code®, 2017 edition. The TIA was processed by the NEC Code-Making Panel 3 and the Correlating Committee on National Electrical Code, and was issued by the Standards Council on April 5, 2017, with an effective date of April 25, 2017.

The 2017 NEC is the base model code for the 2019 California Electrical Code (CEC) which is Part 3 of Title 24. The CEC and the balance of the 13-part California Building Standards Code became effective on January 1, 2020.

The provisions of the NFPA, TIA 17-2 and 17-4 were developed after California's adoption of the 2017 NEC and therefore were not approved as part of the 2019 CEC. It

is important to note that for local government to enforce the provisions of these TIA's they may do so by either:

- **Enacting a local ordinance:** Local ordinances that amend Title 24 building standards and are subject to requirements of California law, must be enacted and filed for each edition of the California Building Standards Code. Ordinances generally must exercise more restrictive standards than the building standards approved/adopted by the commission. These amendments must be filed and accepted, as appropriate, with CBSC before they are enforceable at the local level.

The CBSC website: ([CBSC website](http://dgs.ca.gov/BSC) dgs.ca.gov/BSC) has some helpful resources including the May 2019, 3rd Edition, *Guide for Local Amendments of Building Standards* and an updated California Code Adoption for Local Jurisdictions webinar. [Reference Health & Safety Code (HSC) Sections 18938, 18941.5, and 18959]

- **Permit alternative methods:** Article 90, Section 90.4 Enforcement, allows the authority having jurisdiction enforcement flexibility by allowing alternate methods, use of products, construction or materials.

TIA 17-2 2017 National Electrical Code, Article 625, Sections 625.44(A), 625.54 (New) and 625.56 (New):

Background:

Electric vehicle (EV) manufacturers continue to extend the range of EV's and a demand exists for having the ability to charge upon reaching that extended range in order to make longer range EV use plausible. Multiple EV manufacturers testified during the NFPA Technical Session that 240V portable charging is a must in order to support the sale and deployment of longer range EVs with new models that were launched in 2016. The language to explicitly permit 240V EV Portable Chargers in Article 625 was declined by CMP-12 and the NFPA membership at the Technical Session. The two primary reasons were to address the electrical safety of a person plugging in a 250V cord cap into a receptacle in a wet or damp environment by requiring GFCI and the need for an in-use cover for 250V receptacle outlets serving EV charging equipment. The 2017 NEC partially addressed the GFCI protection requirements for 250V receptacles in locations other than dwelling (NEC 210.8(B)). This proposal addressed the GFCI protection gap along with the in-use cover in order to support the inclusion of 240V portable EV charging in NEC 625.44(A).

Revise Section 625.44(A) to read as follows:

625.44(A) Portable Equipment. Portable equipment shall be connected to the premises wiring systems by one or more of the following methods:

- (1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts, single phase, 15 or 20 amperes
- (2) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 250 volts, single phase, 15 or 20 amperes

- (3) A nonlocking, 2-pole, 3-wire or 3-pole, 4-wire grounding-type receptacle outlet rated at 250 volts, single phase, 30 or 50 amperes
- (4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

The length of the power supply cord, if provided, between the receptacle outlet and the equipment shall be in accordance with 625.17(A) (3).

Add new Section 625.54 to read as follows:

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel. All single-phase receptacles installed for the connection of electric vehicle charging that are rated 150 volts to ground or less, and 50 amperes or less shall have ground-fault circuit-interrupter protection for personnel.

Add new Section 625.56 to read as follows:

625.56 Receptacle Enclosures. All receptacles installed in a wet location for electric vehicle charging shall have an enclosure that is weatherproof with the attachment plug cap inserted or removed.

TIA 17-4 2017 National Electrical Code, Article 590, Section 590.4(G):

Background

The allowance in the 2017 version of 590.4(G) allows for open splices for any temporary installation. This allowance used to apply only to construction sites when certain criteria was met. As written for the 2017 edition, an open splice is permitted for any temporary installation, provided that similar criteria to the construction site rule is met. This means that areas such as Christmas tree sales lots, for example, can have open splices where the public would have access to them. This is obviously an unsafe installation, as 300.15 makes perfectly clear. Unfortunately, 300.15 doesn't apply here as this rule specifically modifies it, as permitted by 90.3. This leaves the AHJ no authority to reject an installation that is obviously a safety hazard and a fire hazard.

Revise Section 590.4(G) to read as follows:

590.4(G) Splices. A box, conduit body, or other enclosure, with a cover installed, shall be required for all splices. ~~except where:~~

Exception: On construction sites, a box, conduit body, or other enclosure shall not be required for either of the following conditions:

- (1) The circuit conductors being spliced are all from nonmetallic multiconductor cord or cable assemblies, provided that the equipment grounding continuity is maintained with or without the box.
- (2) The circuit conductors being spliced are all from metal sheathed cable assemblies terminated in listed fittings that mechanically secure the cable sheath to maintain effective electrical continuity.

The California Building Standards Commission developed this information bulletin as well as the background material that supports the need for these TIA amendments with the intent of statewide distribution via the Information Bulletin process that impacts the 2019 Building Standards Codes, Title 24, California Code of Regulations.

To purchase the 2019 California Electrical Code, visit the following location:

[National Fire Protection Association \(NFPA\) Catalog](#)

NFPA.org

Telephone: 800-344-3555

(Publishes Part 3 of Title 24)

Questions regarding the Tentative Interim Amendments should be directed to the [National Fire Protection Association Contact page](#) (nfpa/contactus.org). Questions specific to this bulletin should be directed to this office at (916) 263-0916 or via E-mail at cbssc@dgs.ca.gov.

Sincerely,



Mia Marvelli, Executive Director

Department of General Services, California Building Standards Commission