

**NFPA 70® -2017 Edition
National Electrical Code®**

TIA Log No.: 1296

Reference: 625.17(B)

Comment Closing Date: September 14, 2017

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1. *Revise 625.17(B) as follows:*

(B) Output Cable to the Electric Vehicle. The output cable to the electric vehicle shall be one of the following:

- (1) Listed Type EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cable as specified in Table 400.4-
- (2) An integral part of listed electric vehicle supply equipment

~~Informational Note: Listed electric vehicle supply equipment may incorporate output cables having ampacities greater than 60° C based on the permissible temperature limits for the components and the cable. For information and listing requirements for electric vehicle supply equipment, see UL Standards 2594-2016, *Standard for Electric Vehicle Supply Equipment*, and UL 2202-2009, *Standard for Electric Vehicle (EV) Charging System Equipment*.~~

Substantiation: The introduction of multiple long range, mass-market priced Electric Vehicles (EVs) requires an exponential growth in the number of fast charge stations. Due to the larger batteries, fast charges must increase the power delivery rates in order to keep the charging times reasonable.

Using the cable types and constructions presently described in Section 625.17(B) for fast charging long range EVs would result in cables so large and heavy that they would be practically unusable. Furthermore, the language used in Section 625.17(B) is overly restrictive and precludes any innovation or progress to deliver smaller, lighter, and safer cables to the public.

The proposed language in this TIA recognizes the fast evolving EV charging technology while addressing the safety concerns by allowing the use of engineered cabling solutions that are an integral (non-detachable) part of the **listed** electric vehicle supply equipment (EVSE).

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

NEC Section 625.17(B) created undue hardship on the Electric Vehicle industry and consumers by failing to recognize and address the practical and safety concerns voiced at the NFPA Technical Session. The EV equipment industry developed technology to address these concerns but its deployment is hampered by the Code. The proposed language in this TIA recognizes the fast evolving EV charging technology the public wants, while addressing the publicly conveyed safety concerns by allowing the use of engineered cabling solutions that are integral (non-detachable) part of a listed EVSE. The 2017 NEC must recognize the needs of the EV industry and the public by supporting innovation now, rather than wait another 3 years for a revision of the Code.

Anyone may submit a comment by the closing date indicated above. To submit a comment, please identify the number of the TIA and forward to the [Secretary, Standards Council](#), 1 Batterymarch Park, Quincy, MA 02169-7471.