FORM FOR PROPOSAL FOR 2014 NATIONAL ELECTRICAL CODE®

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Type or print **legibly** in **black** ink. Use a separate copy for each proposal. Limit each proposal to a **SINGLE** section. All proposals **must be received by NFPA by 5 p.m., EST, Friday, November 4, 2011**, to be considered for the 2014 National Electrical Code. Proposals received after 5:00 p.m., EST, Friday, November 4, 2011, will be returned to the submitter. If supplementary material (photographs, diagrams, reports, etc.) is included, you may be required to submit sufficient copies for all members and alternates of the technical committee.

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Please indicate organization represented (if any) PV INDUSTRY FORUM

1. Section/Paragraph 690.8(B)(2)

2. Proposal Recommends (check one): ☐ new text ☒ revised text ☐ deleted text

3. Proposal (include proposed new or revised wording, or identification of wording to be deleted): [Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

Revise to add terminal temperature conductor size adjustment to (2):

(2) Conductor Ampacity. Circuit conductors shall be sized to meet the most restrictive requirement ~~carry not less than the larger~~ of 690.8(B)(2)(a) through (2)(d).~~, or (2)(b)~~

(a) Shall carry one hundred and twenty-five percent of the maximum current~~s~~ calculated in 690.8(A) without any additional correction factors for conditions of use.

(b) Shall carry the maximum current~~s~~ calculated in 690.8(A) after conditions of use have been applied.

(c) Shall meet the terminal temperature requirements of 110.14(C) where the conductor terminates at a terminal with a temperature rating. One hundred and twenty-five percent of the maximum current calculated in 690.8(A) shall be used in the terminal temperature estimation.

(e~~d~~) ~~The conductor selected, after application of conditions of use~~, Shall be protected by the overcurrent protective device, where required, after application of conditions of use.

4. Statement of Problem and Substantiation for Proposal: (Note: State the problem that would be resolved by your recommendation; give the specific reason for your Proposal, including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)

The terminal temperature limitations of 110.14(C) are often not applied during design or checked during the AHJ plan review. It is common to use 90°C rated conductor in PV systems with overcurrent protection devices with 60 °C or 75°C terminals. The elevated temperatures experienced in dc combiner boxes mounted in exposed locations on roofs makes this check even more important. Adding this requirement here will make this requirement more visible to people using 690.

Changes were also made to correct grammar.

5. Copyright Assignment

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Signature (Required) John C. Wiles Jr.

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