

FORM FOR PROPOSAL FOR 2014 NATIONAL ELECTRICAL CODE®

INSTRUCTIONS — PLEASE READ CAREFULLY

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.

For technical assistance, please call NFPA at 1-800-344-3555.

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Date 2 Nov 2011 Name John C. Wiles, Jr Tel. No. 575-646-6105

Company Southwest Technology Development Institute, New Mexico State University Email jwiles@nmsu.edu

Street Address 3705 RESEARCH DR/MSC 3 SOL City LAS CRUCES State NM Zip 88003

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Please indicate organization represented (if any) PV INDUSTRY FORUM

1. Section/Paragraph 690.31(B)

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~~).]

Add the following second paragraph after the exception in 690.31(B)

Equipment-grounding conductors smaller than 4 AWG installed in exposed outdoor locations used to provide equipment-grounding for photovoltaic (PV) modules, PV panels, and PV mounting structures shall be permitted to have insulated or covered conductors permanently marked as equipment-grounding conductors with a green or green and yellow marking at each termination.

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.)

In most photovoltaic (PV) installations, uninsulated (bare) equipment grounding conductors are used to ground PV modules and associated equipment. However, in some PV power installations, exposed insulated conductors are required for equipment grounding to keep copper conductors from touching metal roofs or other structures that might be damaged or disfigured by dissimilar metals corrosion. While conductors are available with colored insulations that are marked sunlight resistant, many of these insulations have not withstood the high temperature, high UV radiation environment associated with the PV system for the required 40-50 years or more. Black colored conductors like USE-2 made of thermoset materials (synthetic rubber) containing high levels of carbon black have proven to have adequate durability. Allowing these black conductors to be properly marked will help to ensure that PV modules and nearby equipment remain safely grounded for the life of the system.

5. Copyright Assignment

- (a) I am the author of the text or other material (such as illustrations, graphs) proposed in the Proposal.
- (b) Some or all of the text or other material proposed in this Proposal was not authored by me. Its source is as follows: (please identify which material and provide complete information on its source)

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Signature (Required)



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