SCC18 Ad Hoc Report

May 23, 2019

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Ad Hoc Meetings

- Met Jan 2, 2019, Apr 3, 2019, and May 21, 2019
- Primary agenda on Jan 2 was TC716 comments
- Primary agenda on Apr 3 was to discuss the new SCC18 leadership
- Primary agenda on May 21 was review of NEC TIAs (more later)
- Minutes are posted in the ad hoc public area
- Next meeting, Wed May 29, 2019, 1PM ET via teleconference

Tentative Interim Amendments (TIA)

- Nine TIAs have been submitted for consideration
- Basically, these are errata against the Code
- The Ad Hoc determined that two of the nine were within scope of IEEE 802.3
- The Ad Hoc crafted proposed IEEE positions on these two TIAs

TIA 1438

725.121(C) Marking. The power sources for limited power circuits in 725.121(A)(3), limited power circuits for listed audio/video equipment, **listed information technology equipment**, listed communications equipment, and listed industrial equipment in 725.121(A)(4) **shall have a label indicating the maximum voltage and maximum current or maximum voltage and nominal current output per conductor** for each connection point on the power source. Where multiple connection points have the same rating, a single label shall be permitted to be used. **For equipment with a rated current per conductor less than 0.3 amperes, the effective date shall be January 1, 2021.**

Substantiation: CMP-3 removed this exemption in the First Revision for 2020: "*Exception – Marking shall not be required for power sources providing 0.3 amperes nominal current or less per conductor.*" This imposes a new requirement on this equipment. Manufacturers will not be able to instantly comply and therefore, require time to make the appropriate changes to their equipment. The added text intentionally does not include equipment where the rated current exceeds 0.3A per conductor. This requirement was imposed in 2017 with an effective date of January 1, 2018. This equipment should already have this label and therefore is purposely excluded from coverage under this TIA.

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

As the 2020 code sits today, manufacturers will be required to comply on January 1, 2020. Unless they are involved in the revision process, they will not be aware of this new requirement and will not be able to comply on January 1, 2020.

SCC18 Ad Hoc recommended response to 1438

IEEE 802.3 requests that IEEE SCC18 take a position of support on TIA 1438 for both technical merits and emergency nature.

IEEE 802.3 requests a vote of approve for the technical merit with the comment: “Manufacturers of IEEE 802.3 based equipment will be negatively impacted with an immediate requirement for labeling of all PSE ports. A grace period is required to allow time for compliance. These ports are exempt in 725.121(C) in the 2017 NEC, and therefore this TIA will extend this exemption for an additional year.”

IEEE 802.3 requests a vote of approve for the emergency nature with the comment: “Manufacturers of IEEE 802.3 based equipment will be negatively impacted with an immediate requirement for labeling of all PoE ports. A grace period is required to allow time for compliance.”

1444 [725.121(C)]

- **725.121(C) Marking.** The power sources for limited power circuits in 725.121(A)(3), limited power circuits for listed audio/video equipment, listed information technology equipment, listed communications equipment, and listed industrial equipment in 725.121(A)(4) **shall have a label indicating the maximum voltage and rated current output per conductor** for each connection point on the power source. Where multiple connection points have the same rating, a single label shall be permitted to be used.

Informational Note No. 1: Rated current for power sources covered in 725.144 is the output current per conductor the power source is designed to deliver to an operational load at normal operating conditions, as declared by the manufacturer.

Informational Note No. 2: An example of a label is "52V @ 0.433A, 57V MAX" for an IEEE 802.3 compliant Class 8 power source.

- **Substantiation**: There is concern about how PoE systems will be inspected to comply with the NEC. A consistent label format will greatly ease the inspector burden, making it easy to confirm an install complies with 840.160 or 725.144 with a glance. This was overlooked by the CMP. Time is of the essence; if this isn't added to the 2020 code, waiting until 2023 will be too late. This timing issue is why this is being submitted as a TIA instead of waiting for the next revision cycle.
- **Emergency Nature:** The standard contains an error or an omission that was overlooked during the regular revision process. Labeling PoE ports for NEC compliance was introduced in the 2017 code, but only for devices that hadn't yet started shipping in volume. The 2020 code will make a label mandatory for all new PSEs. The intention of the TIA is to get all the manufacturers to label their systems the same way, making it easy for anyone to quickly find the information required to confirm compliance.

SCC18 Ad Hoc recommended response to 1444

IEEE 802.3 requests that IEEE SCC18 take a position of support on TIA 1444 for both technical merits and emergency nature.

- IEEE 802.3 requests a vote of approve for the technical merit with the comment: “Suggesting a consistent label will improve usability.”
- IEEE 802.3 requests a vote of approve for the emergency nature with the comment: “This TIA gives an example label suggesting a standard format which will reduce the chance for misinterpretation during installation and inspection. If this isn’t added in the 2020 code, manufacturers may choose different formats, which could increase confusion. IEEE supports this TIA as it would ease an inspectors burden. ”

Ballot Instructions

If you select **"Agree" on Question No. 1**, simply note "Agree" in the comment field.
If you select **"Agree" on Question No. 2**, note your letter selection from the following reasons in the comment field located in the Instructions Box on the ballot site (see screenshot at end of these instructions):

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.

New recommendation

- For TIA 1438, direct the ER vote Agree on Question 1 with the comment 'Agree' and vote Agree on Question 2 with the comment ‘A’.
- For TIA 1444, direct the ER vote Agree on Question 1 with the comment 'Agree' and vote Agree on Question 2 with the comment 'A'.

Liaison Letter

Motion SCC18-1

Move that the IEEE 802.3 Working Group approve IEEE_802d3_to_SCC18_0519_draft with editorial license granted to the Chair (or his appointed agent) as a liaison communication from the IEEE 802.3 Working Group to the IEEE SCC18.

Move: Chad Jones

Second:

Motion SCC18-2

Move that the IEEE 802.3 Working Group grant the SCC18 ad hoc the authority to give guidance to IEEE SCC18 by July 19, 2019 for setting the IEEE position for TIAs 1438 and 1444

Move: Chad Jones

Second:

Thank You