NFPA 70®-Proposed 2020 Edition National Electrical Code® TIA Log No.: 1444 Reference: 725.121(C) Comment Closing Date: June 27, 2019 Submitter: Chad Jones, Cisco Systems www.nfpa.org/70

1. Revise 725.121(C) to read as follows:

**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 <u>No. 1</u>: 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.