EXHIBIT 245.2 Components of the indoor solid-material (SM) power fuseholder (boric-acid arc-extinguishing type) with a 14.4-kilovolt, 400E-ampere maximum, 40,000-ampere rms asymmetrical interrupting rating. *(Courtesy of S&C Electric Co.)*

N 245.26 Feeders and Branch Circuits.

N (A) Location and Type of Protection. Feeder and branch-circuit conductors shall have overcurrent protection in each ungrounded conductor located at the point where the conductor receives its supply or at an alternative location in the circuit when designed under engineering supervision that includes but is not limited to considering the appropriate fault studies and time–current coordination analysis of the protective devices and the conductor damage curves. The overcurrent protection shall be permitted to be provided by either 250.184(B) or (A)(2).

N (1) Overcurrent Relays and Current Transformers. Circuit breakers used for overcurrent protection of 3-phase circuits shall have a minimum of three overcurrent relay elements operated from three current transformers. The separate overcurrent relay elements (or protective functions) shall be permitted to be part of a single electronic protective relay unit.

On 3-phase, 3-wire circuits, an overcurrent relay element in the residual circuit of the current transformers shall be permitted to replace one of the phase relay elements.

An overcurrent relay element, operated from a current transformer that links all phases of a 3-phase, 3-wire circuit, shall be permitted to replace the residual relay element and one of the phase-conductor current transformers. Where the neutral conductor is not regrounded on the load side of the circuit as permitted in 250.184(B), the current transformer shall be permitted to link all 3-phase conductors and the grounded circuit conductor (neutral).

N (2) Fuses. A fuse shall be connected in series with each ungrounded conductor.

N (B) Protective Devices. The protective device(s) shall be capable of detecting and interrupting all values of current that can occur at their location in excess of their trip-setting or melting point.

N (C) Conductor Protection. The operating time of the protective device, the available short-circuit current, and the conductor used shall be coordinated to prevent damaging or dangerous temperatures in conductors or conductor insulation under short-circuit conditions.

N 245.27 Additional Requirements for Feeders.

N (A) Rating or Setting of Overcurrent Protective Devices. The continuous ampere rating of a fuse shall not exceed three times the ampacity of the conductors. The long-time trip element setting of a breaker or the minimum trip setting of an electronically actuated fuse shall not exceed six times the ampacity of the conductor. For fire pumps, conductors shall be permitted to be protected for overcurrent in accordance with 695.4(B)(2).

N (B) Feeder Taps. Conductors tapped to a feeder shall be permitted to be protected by the feeder overcurrent device where that overcurrent device also protects the tap conductor.

ARTICLE
250 Grounding and Bonding

Part I. General

Δ 250.1 Scope. This article covers general requirements for grounding and bonding of electrical installations and the following specific requirements:

(1) Systems, circuits, and equipment required, permitted, or not permitted to be grounded
(2) Circuit conductor to be grounded on grounded systems
(3) Location of grounding connections
(4) Types and sizes of grounding and bonding conductors and electrodes
(5) Methods of grounding and bonding
(6) Conditions under which isolation, insulation, or guards are permitted to be substituted for grounding

Informational Note: See Informational Note Figure 250.1 for information on the organization of this article covering grounding and bonding requirements.

Although frequently used interchangeably in the field, the terms *grounding* and *bonding* are separate concepts that have different outcomes based on the requirements of Article 250. The two concepts are not mutually exclusive though, and in many cases a single physical action, such as connecting the equipment grounding conductor (EGC) to the grounding terminal of a duplex receptacle, results in a bonding, as well as a grounding, connection.