

Proposal Number: 2018-OA-008

Rule 10-116(6)

Description of Change: Relocate Ontario Amendment about the use of a metal frame of a building as a grounding conductor

Proposed by: Electrical Safety Authority

Background:

Section 10 has been rewritten for the 2018 CE Code. Rule 10-206 for grounding of different systems has been deleted, as has the term different systems from Section 10. They are now referred to as separately derived systems as special terminology in Section 10.

Ontario Rule 10-206(4) permitted the effectively grounded metal frame of a building to be used as a means of grounding different systems. There was also an Appendix B note clarifying that the building frame was permitted to be used as a common grounding conductor, but was not considered a ground electrode.

Rationale:

There is a need to continue to permit this, and the most appropriate rule in the 2018 CE Code to amend is 10-116 “Installation of grounding conductors”. The existing special terminology for effectively grounded metal structural frame of a building has not been changed. The existing Appendix B note to Rule 10-206(4) will be relocated as an Appendix B note to Rule 10-116(6).

Proposed Change:

Add Subrule (6) as follows

10-116 Installation of grounding conductors (see Appendix B)

- (1) The grounding conductor shall be electrically continuous throughout its length.
- (2) Where necessary, devices to control the effects of stray earth current shall be permitted to be connected in series with the grounding conductor.
- (3) A grounding conductor shall be protected from damage
 - (a) mechanically; or
 - (b) by location.
- (4) Raceways or sleeves constructed of magnetic materials used to enclose grounding conductors shall be connected to the grounding conductor at both ends.
- (5) A grounding conductor installed in the same raceway with service conductors shall be insulated, except that an uninsulated grounding conductor shall be permitted where the length of the raceway
 - (a) does not exceed 15 m between pull points; and
 - (b) does not contain more than the equivalent of two 90° bends between pull points.

(6) For separately derived systems, the grounding conductor connection shall be permitted to be made to the effectively grounded metal structural frame of a building as defined in Rule 10-004 (see Appendix B)