



Interpretation

Section 23. Clearances

Rule 235C2b Clearance for wires, conductors, or cables carried on the same supporting structure—Vertical clearance between line conductors—Additional clearances—Sag-related clearances
(2007 Edition, pages 138-139)
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Question: Does rule 235C2b(1)(a) *EXCEPTION 1* apply to sag clearances of 300 mm (12 in) between fiber optic communications cables lashed to a steel messenger located in the communication space and power company neutral conductors located in the supply space?

Discussion:

A third party attacher has placed new, ¼ in, galvanized steel strand and lashed dielectric fiber optic communications cable in the top position of the communications space. There is currently a 12 in separation midspan from the fiber optic communications cable and the power company neutral. Rule 235C2b(1)(a) for midspan clearances is relied upon, which states, “For voltages less than 50 kV between conductors, 75% of that required at supports by Table 235-5.”

NESC Table 235-5 (Vertical clearance between conductors at supports) states in 1.a., “Communications conductors and cables Located in the communication space shall be 40 (in.) from neutral conductors meeting Rule 230E1. Applying this to Rule 235C2b(1)(a), equates to 30 (in) midspan (75% of 40 in).

The power company interprets differently, as follows: NESC Table 235-5 states that 40 in is required between the effectively grounded neutral and "communication conductors and cables located in the communication space." Note 5, however, modifies this 40 in clearance by specifying that it "May be reduced to 30 in for supply neutrals meeting Rule 230E1 (i.e., the power company's system neutral) and cables meeting Rule 230C1



(i.e., primary aerial cable) where the supply neutral or messenger is bonded to the communication messenger." The 12 in, in-span clearance comes from Rule 235C2b, *EXCEPTION 1* [". . .neutral conductors meeting Rule 230E1. . .running above and parallel to communication cables in the communications space where the supply neutral or messenger is bonded to the communication messenger at intervals specified in Rule 092C1, may have a clearance of 300 mm (12 in) at any point in the space provided that a clearance of 0.75 m (30 in) is maintained between the supply space conductors and cables; and the communication space cables at the supporting poles. . .] It is the power company's understanding that even though the third party attacher is in the communication space, the third party attacher can utilize the 30 in at-pole, and 12 in in-span clearance, provided that the third party attacher bonds their messenger to the power company neutral.

One concern in allowing this is that the supply neutral or messenger is not bonded to all communication messengers at intervals specified in Rule 092C1. In addition, the new third party attacher fiber optic cable is a communications cable not a supply cable.

Interpretation

The Interpretations Subcommittee has considered the subject Interpretation Request for Rule 235C2b and has developed a consensus report as follows:

The simple answer to the question posed is yes, Rule 235C2b(1)(a) *EXCEPTION 1* allows a mid-span clearance of 300 mm (12 in) for installations described in this Interpretation Request, i.e., between (1) neutral conductors in the supply space; and (2) steel messengers supporting fiber-optic cable in the communication space.

Note that the *EXCEPTION* applies only where all of the following conditions are met:

- a) The neutral conductor meets Rule 230E1;
- b) The neutral conductor is bonded to the communication messenger at intervals specified in Rule 92C; and
- c) A clearance of 0.75 m (30 in) is maintained at the pole between the neutral conductor and the highest communication attachment (the communication messenger in subject case).

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