

National Electrical Safety Code Committee, Accredited Standards Committee C2

National Electrical Safety Code®

Interpretation

Section 23. Clearances

Rule 233 Table 233-1 Vertical Clearance Between Wires, Conductors, and Cables Carried on Different Supporting Structure (2002 Edition, page 91) (31 March 2004) IR535

On a traffic signal, the top wire is typically a weight-bearing messenger and the bottom messenger holds power lines and adds stability. Should the messengers be treated as communication messengers or supply messengers?

Discussion: This has not been a problem in the past because the intersections were small and the traffic signal messengers were below the supply primary. As the intersections grow, the messengers rise. If treated as communication messengers, a larger separation is necessary and the crossing is not recommended (see note 9).

An alternative installation would be to use a switching cabinet that would be both more expensive and more obtrusive, while not really needed.

Interpretation

The Interpretations Subcommittee has considered the subject Interpretation Request for Rule 233 Table 233-1 and has developed a consensus report as follows:

“For the installation described above, both messengers are usually classified as supply messengers. While the term “traffic signal” may imply communication because timed signals or lights are used to control traffic, the devices are nothing more than switched luminaires with narrowly focused light patterns. The cables that feed the bulbs, the “power lines” in this request, are classified as electric supply lines (or supply lines) rather than communication lines. See NESC Definitions: “lines—electric supply lines” and the NOTE following “lines—communication lines.”

Consequently, a messenger supporting the supply cable that feeds a traffic control signal (the lower messenger in the above example) is a supply messenger. Because the upper messenger (in the above example) is usually attached to the supporting structures in the supply space, it is normally also a supply messenger. Note that this is a general statement; design of each installation is dependent on site-specific conditions.”