

# 2007 NESC® CHANGES

## NEWSLETTER

Issue 3 of 8

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November 2006

### McGraw-Hill's NESC® 2007 Handbook

A welcomed companion to the NESC®, McGraw-Hill's *National Electrical Safety Code® (NESC®) 2007 Handbook*, authored by David J. Marne, PE, has been published and is available for purchase at [www.codehandbook.com](http://www.codehandbook.com).

### Focus on Changes

This month we are focusing on new Rule 230B titled "Ice and wind loading for clearances" and modified Rule 235I titled "Clearances in any direction from supply line conductors to communication antennas in the supply space attached to the same supporting structure."

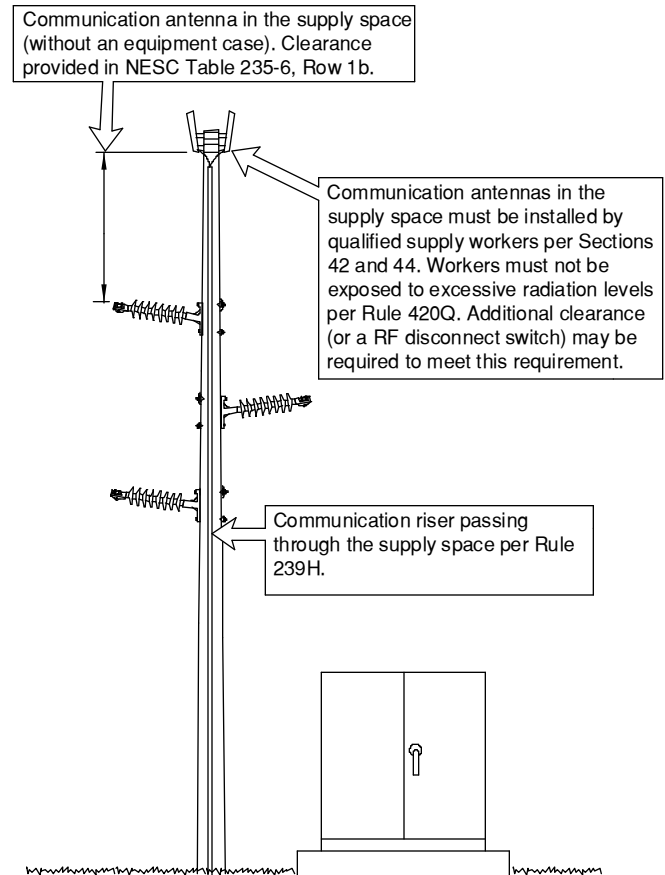
### New Rule 230B, Ice and wind loading for clearances

New Rule 230B defines the ice and wind loads that must be put on an overhead line before checking overhead line clearance. To understand why this rule was added, it is necessary to understand the structure of the NESC Committees. Separate committees are responsible for overhead line clearance issues and overhead line strength issues. Prior to the 2007 NESC®, the overhead clearance rules relied on the strength rules to specify required ice and wind loads. During the past revision cycle, the clearance committee decided to copy the ice and wind loading map from the strengths section into the clearance section. Therefore, any changes to ice and wind loading requirements for strength purposes would not affect ice and wind requirements for clearance purposes. The bottom line is that the Heavy, Medium, and Light loading map from Rule 250B was copied to new Rule 230B and the terms Heavy, Medium, and Light were replaced with the terms Zone 1, Zone 2, and Zone 3. This is primarily a formatting change and does not directly change the overhead line clearance values in Section 23.

### Revised Rule 235I, Clearances in any direction from supply line conductors to communication antennas in the supply space attached to the same supporting structure

Rule 235I provides clearance between supply conductors and communication antennas mounted in the supply space. It has become somewhat common to see a cell phone antenna mounted at the top of a power pole above the supply conductors in the supply space. Rule 235I references specific rows in NESC Table 235-6 to obtain the required clearance values between the antenna and the supply conductors. Typically, a communications vertical riser would be located on the pole that has a communications antenna. Requirements for vertical communication conductors passing through the supply space on jointly used structures (poles) are found in Rule 239H. When a communications antenna is located in the supply space, the worker installing or maintaining the communications antenna must be qualified to work in the supply space per the Work Rules (Sec. 42 and 44) of the NESC.

The revision to Rule 235I involves the addition of a note referencing new Rule 420Q. New Rule 420Q addresses the Radio Frequency (RF) emissions from communication antennas. This concern is an issue for power lineman working in the vicinity of cell phone antennas. Additional clearance or a RF disconnect switch may be required to protect workers from excessive radiation levels. The NESC® does not provide specific distances for working around communication antennas but does reference other standards that do.



### Training Options

During the months of November and December, Marne and Associates will be presenting a one-day seminar entitled *Major Changes and General Overview of the 2007 NESC®* at the following locations:

#### November Schedule

**Dallas** on November 9, 2006

**Las Vegas** on November 30, 2006

#### December Schedule

**Little Rock** on December 12, 2006

**Houston** on December 14, 2006

Please visit [www.marneassociates.com](http://www.marneassociates.com) to register for any of our training sessions.

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