2023 NEC Study Guide For "Feeders to Remote Buildings"

(This Study Guide was prepared by Gaylord Poe)

1. Although this practice is often used in commercial/industrial locations it is more common in residential applications, typically for detached garages and other residential outbuildings. This study guide will address the more common code issues that frequently arise concerning this topic.

2. Not too long ago, code sections concerning these installations were a little harder to find and figure out. NEC Art. 230 was primarily used. Today, Art. 230 is only used as referenced by other NEC Articles.

3. The two primary NEC Articles used to determine code compliance today are Art. 225 and Art. 250.

4. NEC Art. 225 (Part II) addresses the number of supplies permitted to remote buildings, requirements for the disconnecting means, the type of disconnecting means and the location of the disconnecting means.

   Review NEC Art. 225.30 through Art. 225.42. <u>Pay close attention to the following rules:</u>

   a. **Art. 225.30 – Number of supplies**
   b. **Art. 225.31 – Disconnecting means required**
   c. **Art. 225.31(B) – Location of the Disconnecting means**
   d. **Art. 225.36 – Suitable for Service Equipment**
   e. **Art. 225.41 – Emergency Disconnects**
   f. **Art. 225.42 – Surge Protection**

5. NEC Art. 250.32 addresses the requirements for the grounding electrode, the grounding electrode conductor, and the required connections between the feeder supplying the remote building and the grounding electrode system at the remote building. Note that almost all feeders to remote buildings today are supplied by grounded systems. **Review NEC Art. 250.32 (A) through (E). <u>Pay close attention to the following rules:</u>**

   a. **Art. 250.32 (B) – Sizing and installing the required equipment grounding conductor that must be run with the feeder conductors**

   b. **Art. 250.32 (A) – When a grounding electrode system is required at the remote building**

c. Art. 250.32 (E) – How to size the required grounding electrode conductor