

# 2011 NEC Study Guide For “Feeder Tap Rules”

*(This Study Guide was prepared by Gaylord Poe)*

The purpose of this study guide is to help you apply the “feeder tap rules” as found in NEC Article 240. These rules are often misunderstood and misapplied by both installers and inspectors. This study guide will help you formulate a logical approach to the rules.

## 1. What is a tap?

The definition of “Tap Conductors” is found in NEC 240.2 and is as follows: “As used in this article, a tap conductor is defined as a conductor, other than a service conductor, that has overcurrent protection ahead of its point of supply that exceeds the value permitted for similar conductors that are protected as described elsewhere in 240.4.”

2. **What is a feeder tap?** Simply stated, a feeder tap is simply a smaller feeder conductor spliced to a larger feeder conductor without overcurrent protection at the splice point. The safety issue is that this smaller feeder conductor is “overfused” from the point of the splice until overcurrent protection is installed.
3. **Overcurrent protection and feeder taps** - A review of NEC 240.4 outlines the overcurrent protection requirements for general building wiring conductors. The overcurrent protection requirements for feeder tap conductors are found in NEC 240.4(E)(3). Note that NEC 240.4(E)(3) doesn’t waive the overcurrent protection requirements; it only specifies the location requirements of the required overcurrent protection.
4. **Location of overcurrent protection** – NEC 240.21 basically says that conductors must have overcurrent protection at their point of supply except as permitted in NEC 240.21 (A) through (H). Note that for feeder taps, rules (B)(1) through (5) are applicable. Also note that these rules are not about whether or not overcurrent protection is required, the rules are only about **the location** of the overcurrent protection. In other words, if your application of the feeder tap rules results in no overcurrent protection, you’ve misapplied the rules.