

High Voltage Transmission System Branch Circuits and Taps

Section 331(h) of the Bituminous Coal Mine Laws of Pennsylvania requires that taps or branch circuits from the high-voltage feeder will be made through circuit breakers or suitable load break switches. For the purpose of interpretation and compliance with Section 331(h) and with Section 313(h), the following definitions will be used:

Branch Circuit

A branch circuit is a sub-portion of the high-voltage system, serving one or more loads. The branch circuit begins at the junction or splitting of the high-voltage system. The junction consists of three distinct elements;

1. Input feeder, which delivers power from the source.
2. Output feeder, which may extend the feeder to other parts of the high-voltage system.
3. The branch circuit.

The output feeder is not considered as a branch circuit and is not required to have electrical protection at the junction, but receives electrical protection either at the source substation or at some place between the source substation and the junction. The branch circuit is required to have protection at the junction.

Tap

A tap supplies power to the high-voltage loads located entirely within the enclosure where the connection is made.

Where no splitting of the feeder cable occurs, neither a tap nor branch is created.

Suitable Load Break Switch

A suitable load break switch, which may be used in lieu of a circuit breaker, is defined as a gang operated switch with a voltage rating not less than the system voltage, capable of interrupting a current equal to its continuous full load rating, and to be used in conjunction with fuses to provide overload and short circuit protection for the load being served.