

Explanation of Separately Derived vs. Non-Separately Derived System

A separately derived system is not directly connected to any other system (electrical power source).

In the example of a 120/240-volt single phase permanently installed generator.

- If a generator is the sole source of power for utilization equipment it is a separately derived system.
- If a generator is used as an alternate source of power, to a service for example, how the grounded neutral conductor is connected will determine if the generator is a "separate" system.
- A transfer switch that switches the grounded neutral conductor in addition to the phase conductors (3 pole switch) would make the generator a separately derived system.
- Section 250.30 requires that a system bonding jumper and grounding electrode conductor be connected to the generator grounded conductor.

If the **generator neutral** is not switched (2 pole switch) but is **directly connected** to the **service neutral grounded conductor**, then it is not a separately derived system so 250.30 does not apply. The grounded neutral is not permitted to be re-grounded.