

remain interconnected to any available power production source during operation of the legally required standby source(s) where the lack of, or failure of, the interconnected power production source(s), or related controls, does not impact system operation. Interconnected power production sources, other than the designated SEPSS, shall not be required to meet the requirements of this article.

- Δ (I) Battery-Equipped Emergency Luminaires, Used for Legally Required Standby Systems.** Battery-equipped emergency luminaires used for legally required standby systems shall comply with 701.12(H).

Part IV. Overcurrent Protection

701.30 Accessibility. The branch-circuit overcurrent devices in legally required standby circuits shall be accessible to authorized persons only.

701.31 Ground-Fault Protection of Equipment. The alternate source for legally required standby systems shall not be required to provide ground-fault protection of equipment with automatic disconnecting means. Ground-fault indication at the legally required standby source shall be provided in accordance with 701.6(D) if ground-fault protection of equipment with automatic disconnecting means is not provided.

Δ 701.32 Selective Coordination.

Coordination, selective (selective coordination), as defined in Article 100, is a protection method in which the operation of the overcurrent protective scheme localizes an overcurrent condition to the circuit conductors or equipment in which an overload or fault (short circuit or ground fault) has occurred. This selective operation prevents power loss to unaffected loads.

Continuity of operation of lighting and life-safety equipment is necessary for safe occupant evacuation. This requirement minimizes the possibility that an overload, short circuit, or ground fault in a 20-ampere branch circuit would cause the feeder protective device supplying the branch-circuit panelboard to open. Coordination must be carried through each level of distribution that supplies power to the emergency system.

Design and verification of electrical system coordination can be achieved only through a coordination study. A coordination study entails detailed analysis of electrical supply system fault-current characteristics. Modifications to the electrical system after the initial design and installation can affect the original implementation of the coordinated system. For examples of overcurrent protection with and without coordinated protection, see Exhibit 700.11 within Article 700.

- N (A) General.** Legally required standby system(s) overcurrent protective devices (OCPDs) shall be selectively coordinated with all supply-side and load-side OCPDs.

Selective coordination shall be selected by a licensed professional engineer or other qualified persons engaged primarily in

the design, installation, or maintenance of electrical systems. The selection shall be documented and made available to those authorized to design, install, inspect, maintain, and operate the system.

- N (B) Replacements.** Where legally required standby OCPDs are replaced, they shall be reevaluated to ensure selective coordination is maintained with all supply-side and load-side OCPDs.

- N (C) Modifications.** If modifications, additions, or deletions to the legally required standby system(s) occur, selective coordination of the legally required system(s) OCPDs with all supply-side and load-side OCPDs shall be reevaluated.

Exception: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.

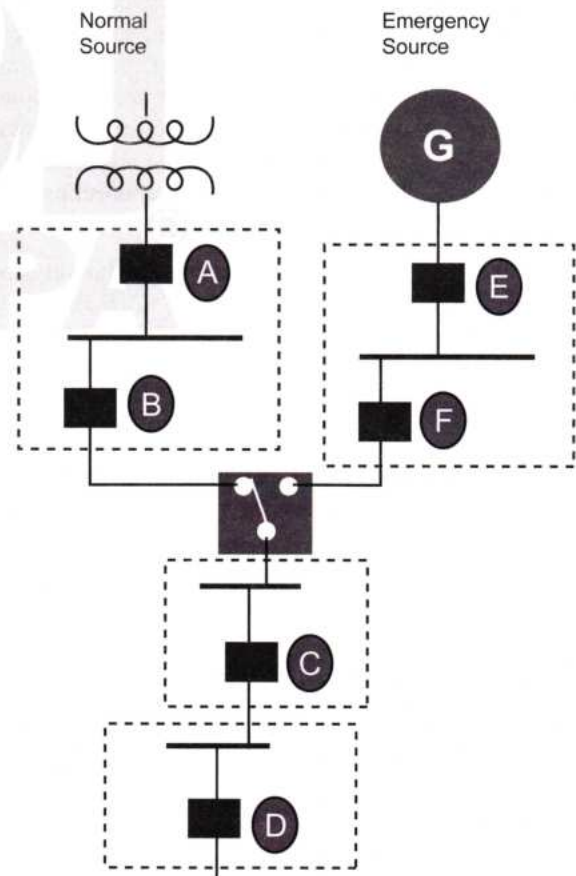
Informational Note: See Informational Note Figure 701.32(C) for an example of how legally required standby system OCPDs selectively coordinate with all supply-side OCPDs.

OCPD D selectively coordinates with OCPDs C, F, E, B, and A.

OCPD C selectively coordinates with OCPDs F, E, B, and A.

OCPD F selectively coordinates with OCPD E.

OCPD B is not required to selectively coordinate with OCPD A because OCPD B is not a legally required standby system OCPD.



INFORMATIONAL NOTE FIGURE 701.32(C) Legally Required Standby System Selective Coordination.