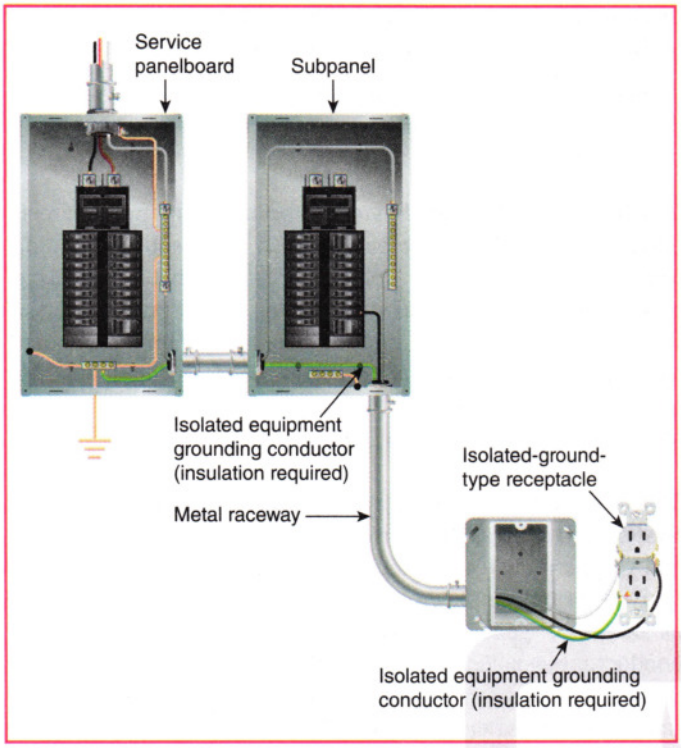

EXHIBIT 250.50 An isolated-ground-type receptacle with an insulated EGC and the device box and receptacle mounting yoke grounded through the metal raceway.

could cause damage to equipment connected to an isolated-ground-type receptacle and present a shock hazard between the isolated equipment frame and other grounded surfaces.

Δ **250.148 Continuity of Equipment Grounding Conductors and Attachment in Boxes.** If circuit conductors are spliced within a box or terminated on equipment within or supported by a box, the installation shall comply with 250.148(A) through (D).

If multiple circuits are spliced within the box or terminated to equipment within the box, all the EGCs must be connected together and to the box unless exempted under 250.148. If a metal box is grounded by a metal raceway system and the circuit conductors are not spliced or terminated to equipment in the metal box, the wire-type EGC is not required to be connected to the box. Wire-type EGCs that are not spliced or terminated within a box do not have to be connected to the box; however, the box (if metal) is required to be connected to the EGC of the circuit with the highest rating that is contained in the box.

Exception: The equipment grounding conductor permitted in 250.146(D) shall not be required to be connected to the other equipment grounding conductors or to the box.

(A) Connections and Splices. All equipment grounding conductors that are spliced or terminated within the box shall be connected together. Connections and splices shall be made in accordance with 110.14(B) and 250.8 except that insulation shall not be required.

(B) Equipment Grounding Conductor Continuity. The arrangement of grounding connections shall be such that the disconnection or the removal of a luminaire, receptacle, or other device fed from the box does not interrupt the electrical continuity of the equipment grounding conductor(s) providing an effective ground-fault current path.

Δ **(C) Metal Boxes.** A connection used for no other purpose shall be made between the metal box and the equipment grounding conductor(s). The equipment bonding jumper or equipment grounding conductor shall be sized from Table 250.122 based on the largest overcurrent device protecting circuit conductors in the box.

Δ **(D) Nonmetallic Boxes.** One or more equipment grounding conductors brought into a nonmetallic outlet box shall be arranged to provide a connection to any fitting or device in that box requiring connection to an equipment grounding conductor.

Part VIII. Direct-Current Systems

250.160 General. Direct-current systems shall comply with Part VIII and other sections of Article 250 not specifically intended for ac systems.

250.162 Direct-Current Circuits and Systems to Be Grounded. Direct-current circuits and systems shall be grounded as provided for in 250.162(A) and (B).

(A) Two-Wire, Direct-Current Systems. A 2-wire, dc system supplying premises wiring and operating at greater than 60 volts but not greater than 300 volts shall be grounded.

Exception No. 1: A system equipped with a ground detector and supplying only industrial equipment in limited areas shall not be required to be grounded if installed immediately adjacent to, or integral with, the source of supply.

Exception No. 2: A rectifier-derived dc system supplied from an ac system complying with 250.20 shall not be required to be grounded.

Exception No. 3: Direct-current fire alarm circuits having a maximum current of 0.030 ampere as specified in Article 760, Part III, shall not be required to be grounded.

(B) Three-Wire, Direct-Current Systems. The neutral conductor of all 3-wire, dc systems supplying premises wiring shall be grounded.

250.164 Point of Connection for Direct-Current Systems.

(A) Off-Premises Source. Direct-current systems to be grounded and supplied from an off-premises source shall have the grounding connection made at one or more supply stations. A grounding connection shall not be made at individual services or at any point on the premises wiring.