

so that the bottom of the enclosure is not less than 150 mm (6 in.) above the ground.

Requiring equipment to be mounted so that the bottom of the enclosure is at least 6 inches above the ground prevents excessive moisture from entering the equipment and allows for proper radius of bend on conductors entering and exiting the equipment from below.

**(B) Busbars and Terminals.** Busbars shall have an ampere rating not less than the overcurrent device supplying the feeder supplying the box. Where conductors terminate directly on busbars, busbar connectors shall be provided.

**(C) Receptacles and Overcurrent Protection.** Receptacles shall have overcurrent protection installed within the box. The overcurrent protection shall not exceed the ampere rating of the receptacle, except as permitted in Article 430 for motor loads.

**(D) Single-Pole Connectors.** Where single-pole connectors are used, they shall comply with 530.10.

#### 525.23 Ground-Fault Circuit-Interrupter (GFCI) Protection.

Section 525.23 provides three categories: where GFCIs are required, where GFCIs are not required, and where GFCIs are not permitted to be installed. The application where GFCI protection is not required is very specific. The receptacles must be locking, must be quick disconnect/reconnect, and must not be accessible from grade. GFCI protection is not allowed on circuits that supply means-of-egress illumination. GFCI receptacles that are supplied by branch circuits that utilize flexible cord are required to be listed for portable use. This requirement ensures that the GFCI devices will have open neutral protection.

**(A) Where GFCI Protection Is Required.** In addition to the requirements of 210.8(B), GFCI protection for personnel shall be provided for the following:

- (1) All 125-volt, single-phase, 15- and 20-ampere non-locking-type receptacles used for disassembly and reassembly or readily accessible to the general public
- (2) Equipment that is readily accessible to the general public and supplied from a 125-volt, single-phase, 15- or 20-ampere branch circuit

The GFCI shall be permitted to be an integral part of the attachment plug or located in the power-supply cord within 300 mm (12 in.) of the attachment plug. Listed cord sets incorporating GFCI for personnel shall be permitted.

**(B) Where GFCI Protection Is Not Required.** Receptacles that are not accessible from grade level and that only facilitate quick disconnecting and reconnecting of electrical equipment shall not be required to be provided with GFCI protection. These receptacles shall be of the locking type.

**(C) Where GFCI Protection Is Not Permitted.** Egress lighting shall not be protected by a GFCI.

**(D) Receptacles Supplied by Portable Cords.** Where GFCI protection is provided through the use of GFCI receptacles, and the branch circuits supplying receptacles use flexible cord, the GFCI protection shall be listed, labeled, and identified for portable use.

### Part IV. Equipment Grounding and Bonding

**525.30 Equipment Bonding.** The following equipment connected to the same source shall be bonded:

- (1) Metal raceways and metal-sheathed cable
- (2) Metal enclosures of electrical equipment
- (3) Metal frames and metal parts of portable structures, trailers, trucks, or other equipment that contain or support electrical equipment

Where the metal frames or parts of the equipment in 525.30(1), (2), or (3) are likely to become energized in the event of a fault, the equipment grounding conductor of the supply circuit shall be permitted to serve as the bonding means.

**525.31 Equipment Grounding.** The equipment grounding conductor shall be connected to the system grounded conductor at the service disconnecting means or, in the case of a separately derived system such as a generator, at the generator or first disconnecting means supplied by the generator.

**525.32 Equipment Grounding Conductor Continuity Assurance.** The continuity of the equipment grounding conductors shall be verified each time that portable electrical equipment is connected.

The transient nature of the events covered under Article 525 and, in some cases, the entire associated electrical distribution system increases the possibility that continuity of the equipment grounding conductor (EGC) system could be interrupted. Verification of the grounding system continuity each time equipment is reconnected helps ensure the safety of workers and members of the general public who may come in contact with electrical equipment.

## ARTICLE 530

### Motion Picture and Television Studios and Remote Locations

#### Part I. General

**530.1 Scope.** The requirements of this article shall apply to motion picture and television studios in facilities and locations staffed by qualified persons, except as provided in 520.1. Such occupancies shall include those using either electronic or film cameras for image capture.