

in the limited space. A horizontal ceiling structural member or access panel shall be permitted in this space provided the location of weight-bearing structural members does not result in a side reach of more than 150 mm (6 in.) to work within the enclosure.

This requirement was located in 424.66 prior to the 2017 edition. A typical application of this requirement is the installation of duct heaters and other ventilation equipment located above suspended ceilings. The workspace is usually limited, and workers are usually performing maintenance from ladders.

(5) Separation from High-Voltage Equipment. Where switches, cutouts, or other equipment operating at 1000 volts, nominal, or less are installed in a vault, room, or enclosure where there are exposed live parts or exposed wiring operating over 1000 volts, nominal, the high-voltage equipment shall be effectively separated from the space occupied by the low-voltage equipment by a suitable partition, fence, or screen.

N (6) Grade, Floor, or Working Platform. The grade, floor, or platform in the required working space shall be kept clear, and the floor, grade, or platform in the working space shall be as level and flat as practical for the entire required depth and width of the working space.

(B) Clear Spaces. Working space required by this section shall not be used for storage. When normally enclosed live parts are exposed for inspection or servicing, the working space, if in a passageway or general open space, shall be suitably guarded.

Prohibited storage includes portable equipment on rollers. Exhibit 110.16 shows an equipment location that is free of storage. This section and the rest of 110.26 do not prohibit the placement of panelboards in corridors or passageways. When the covers of corridor-mounted panelboards are removed for

authorized energized work, access to the area around the panelboard should be guarded or limited to prevent injury to unqualified persons using the corridor in accordance with NFPA 70E, *Standard for Electrical Safety in the Workplace*, Article 130.

(C) Entrance to and Egress from Working Space.

(1) Minimum Required. At least one entrance of sufficient area shall be provided to give access to and egress from working space about electrical equipment.

The requirements in this section provide access to and egress from electrical equipment. However, the primary intent is to provide egress from the area so that workers can escape if an arc-flash incident occurs.

Δ (2) Large Equipment. For large equipment that contains over-current devices, switching devices, or control devices, there shall be one entrance to and egress from the required working space not less than 610 mm (24 in.) wide and 2.0 m (6½ ft) high at each end of the working space. This requirement shall apply to either of the following conditions:

- (1) For equipment rated 1200 amperes or more and over 1.8 m (6 ft) wide
- (2) For service disconnecting means installed in accordance with 230.71(B) where the combined ampere rating is 1200 amperes or more and where the combined width is over 1.8 m (6 ft)

A single entrance to and egress from the required working space shall be permitted where either of the conditions in 110.26(C)(2)(a) or (C)(2)(b) is met.

(a) *Unobstructed Egress.* Where the location permits a continuous and unobstructed way of egress travel, a single entrance to the working space shall be permitted.

(b) *Extra Working Space.* Where the depth of the working space is twice that required by 110.26(A)(1), a single entrance shall be permitted. It shall be located such that the distance from the equipment to the nearest edge of the entrance is not less than the minimum clear distance specified in Table 110.26(A)(1) for equipment operating at that voltage and in that condition.

Open equipment doors must not impede access to or egress from the work space. This requirement is intended to prevent workers from being entrapped between equipment doors and walls or other equipment facing the installation. Exhibits 110.17 and 110.18 illustrate access and entrance requirements for working spaces. Exhibit 110.19 shows an unacceptable and hazardous work space arrangement. See Exhibits 110.20 and 110.21 for representations of the single egress requirements for large equipment. Large equipment is equipment rated 1200 amperes or more and over 6 feet wide. Equipment consisting of multiple disconnecting means, in accordance with 230.71, where the combined rating is 1200 amperes or more and over 6 feet wide, is also considered large equipment.



EXHIBIT 110.16 An equipment location that is free of storage to allow the equipment to be worked on safely.