

WAC 296-307-36230 What access and working space must be provided for electrical equipment over 600 volts, nominal? (1) Conductors and equipment used on circuits exceeding 600 volts, nominal, must meet all requirements of WAC 296-307-36221 and the additional requirements of this section. This section does not apply to equipment on the supply side of the service conductors.

(2) Electrical installations in a vault, room, closet or area surrounded by a wall, screen, or fence, with access controlled by lock and key or other approved means, are considered accessible to qualified persons only. A wall, screen, or fence less than 8 feet high is not considered to prevent access unless it has other features that provide a degree of isolation equivalent to an 8 foot fence. The entrances to all buildings, rooms, or enclosures containing exposed live parts or exposed conductors operating at over 600 volts, nominal, must be kept locked or under the observation of a qualified person at all times.

(a) Electrical installations with exposed live parts must be accessible to qualified persons only.

(b) Electrical installations that are open to unqualified persons must be made with metal-enclosed equipment or enclosed in a vault or in an area, with access controlled by a lock. If metal-enclosed equipment is installed so that the bottom of the enclosure is less than 8 feet above the floor, the door or cover must be kept locked. Metal-enclosed switchgear, unit substations, transformers, pull boxes, connection boxes, and other similar associated equipment must be marked with appropriate caution signs. If equipment is exposed to physical damage from vehicular traffic, guards must be provided to prevent damage. Ventilating or similar openings in metal-enclosed equipment must be designed so that foreign objects inserted through these openings will be deflected from energized parts.

(3) You must provide and maintain enough space around electric equipment to permit ready and safe operation and maintenance of equipment. Where energized parts are exposed, the minimum clear workspace must be at least 6 feet 6 inches high (measured vertically from the floor or platform), or less than 3 feet wide (measured parallel to the equipment). The depth must meet the requirements of Table T. The workspace must be adequate to permit at least a 90-degree opening of doors or hinged panels.

(a) The minimum clear working space in front of electric equipment such as switchboards, control panels, switches, circuit breakers, motor controllers, relays, and similar equipment must be at least that specified in Table T unless otherwise indicated. Distances must be measured from the live parts if they are exposed, or from the enclosure front or opening if the live parts are enclosed. However, working space is not required in back of equipment such as deadfront switchboards or control assemblies where there are no renewable or adjustable parts (such as fuses or switches) on the back and where all connections are accessible from another direction. Where rear access is required to work on deenergized parts on the back of enclosed equipment, a minimum working space of 30 inches horizontally shall be provided.

Table T
Minimum Depth of Clear Working Space
in Front of Electric Equipment

Nominal voltage to ground	Conditions (ft)		
	(a)	(b)	(c)
601 to 2,500	3	4	5
2,501 to 9,000	4	5	6
9,001 to 25,000	5	6	9
25,001 to 75kV1	6	8	10
Above 75kV1	8	10	12

Note: Minimum depth of clear working space in front of electric equipment with a nominal voltage to ground above 25,000 volts may be the same as for 25,000 volts under conditions (a), (b) and (c) for installations built prior to April 16, 1981.

Conditions: (a) Exposed live parts on one side and no live or grounded parts on the other side of the working space, or exposed live parts on both sides guarded by suitable wood or other insulating materials. Insulated wire or insulated busbars operating at 300 volts or less are not considered live parts.
 (b) Exposed live parts on one side and grounded parts on the other side. Concrete, brick, or tile walls will be considered grounded surfaces.
 (c) Exposed live parts on both sides of the workspace (not guarded as in (a)) with the operator between.

(b) All working spaces around electric equipment must be adequately lit. The lighting outlets shall be arranged so that anyone changing lamps or making repairs on the lighting system will not be endangered by live parts or other equipment. The points of control must be located so that no one is likely to come in contact with any live part or moving part of the equipment while turning on the lights.

(c) Unguarded live parts above working space must be elevated to at least the height specified below:

Elevation of Unguarded Energized Parts Above Working Space

Nominal voltage between phases	Minimum elevation
601 to 7,500	8 feet 6 inches
7,501 to 35,000	9 feet
Over 35kV	9 feet + 0.37 inches per kV above 35kV

Note: Minimum elevation may be 8 feet for installations built prior to April 16, 1981, if the nominal voltage between phases is in the range of 601-6600 volts.

(4) Entrance and access to workspace must meet the following requirements:

(a) At least one entrance that is at least 24 inches wide and 6 feet 6 inches high must be provided to give access to the working space around electric equipment. On switchboard and control panels over 48 inches wide, there must be one entrance at each end of the board where practical. Where bare energized parts at any voltage or insulated energized parts above 600 volts are located adjacent to the entrance, they must be suitably guarded.

(b) Permanent ladders or stairways must be provided to give safe access to the working space around electric equipment installed on platforms, balconies, mezzanine floors, or in attic or roof rooms or spaces.

[Statutory Authority: RCW 49.17.040. WSR 98-24-096, § 296-307-36230, filed 12/1/98, effective 3/1/99. WSR 97-09-013, recodified as § 296-307-36230, filed 4/7/97, effective 4/7/97. Statutory Authority: RCW 49.17.040, [49.17.]050 and [49.17.]060. WSR 96-22-048, § 296-306A-36230, filed 10/31/96, effective 12/1/96.]