



## CODE APPLICATION NOTICE

Health and Safety Code §129851

CAN: 3-517.33(H)

### SUBJECT

Power Source for Electrically Powered Doors

Effective: 03/20/2026



### CODE SECTIONS

2025 California Building Code, Part 2, Volume 1  
CHAPTER 2 DEFINITIONS, SECTION 202—Definitions

2025 California Building Code, Part 2, Volume 1  
CHAPTER 2 MEANS OF EGRESS  
SECTION 1010—DOORS, GATES, AND TURNSTILES, SECTION 1010.1.1 Size of doors.

2025 California Building Code, Part 2, Volume 1  
CHAPTER 11B ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS,  
COMMERCIAL BUILDINGS AND PUBLIC HOUSING  
DIVISION 4: Accessible Routes, SECTION 11B-404—DOORS, DOORWAYS AND GATES

2025 California Electrical Code, Part 3  
Chapter 5 Special Occupancies, ARTICLE 517 Health Care Facilities  
Sections 517.33(H) Automatic Doors., 517.34(A)(10) Critical Branch., and  
517.35(B)(5) Automatically operated doors.

**Appendix** – 2025 California Building Standards Code, Title 24, California Code of Regulations, code citation(s) related to this Code Application Notice (CAN).

**Acronyms and Definitions** assist the user in recognizing and identifying various acronyms and terms generally used in this CAN. Please refer to the [“Master Glossary of Acronyms and Definitions – Acronyms and Definitions Used in OSHPD Published Documents”](#) which is posted on the HCAI website at <https://hcai.ca.gov/document/master-glossary-of-acronyms-and-definitions/>. Other definitions may also be found in the [California Building Standards Code](#), Title 24, California Code of Regulations.

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### PURPOSE

The purpose of this Code Application Notice (CAN) is to clarify when backed-up electrical power is required for the power-operated doors in general acute-care hospital buildings. OSHPD had required all automatic doors, power-operated doors and power-assisted doors in general acute-care hospitals be powered by the essential electrical system. Enforcement is based on California Electrical Code (CEC) Sections 517.33(H) and 517.35(B)(5), which indicated that automatic doors should be powered by either the life safety branch or the equipment branch of the essential electrical system, depending on their use. OSHPD had applied these requirements even to doors with automatic operators added

for convenience rather than code compliance. However, this has not always been the case and further clarification is being provided in this CAN to ensure appropriate code enforcement.

## **BACKGROUND**

The enforcement practice for power-operated doors evolved as new requirements were added to the Title 24, California Code Regulations, California Building Standards Code. Prior to 1981, CEC Article 517 - Health Care Facilities did not require automatic doors to have back-up power. In the 1981 CEC, a new requirement required “automatically operated doors” to be powered by the equipment branch of the hospital essential electrical system. The term “automatically operated door” was not defined in the CEC or the California Building Code (CBC). The 1981 CEC defined “*automatic*” as “*Self-acting, operating by its own mechanism when actuated by some impersonal influence, for example, a change in current, strength, pressure, temperature, or mechanical configuration.*” As a result, “automatically powered door” was interpreted to mean a door that opens automatically when approached by a pedestrian using motion sensors or floor mat actuators. These fully automatic doors are common at high-traffic commercial building entrances. Because a power outage would stop automatic operation, these doors had to be connected to the equipment branch.

During the 1993 code adoption cycle, the California Division of State Architect (DSA) added a definition for “Automatic Door” to the CBC. It defined “Automatic Door” as “*A door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat or manual switch.*” Based on this definition, OSHPD required any automatic door meeting the new definition to be powered by the equipment branch, including power operated doors with push button activation.

The 2001 National Electrical Code (NEC) introduced a new automatic door requirement in Article 517 that electrically powered doors used for building egress must be powered by the life safety branch rather than the equipment branch. This provision was incorporated into the CEC during the 2004 California Code Adoption Cycle and aligned with a similar requirement in 1999 NFPA 99. The NFPA 99 code committee implemented this change because life safety branch loads receive the highest priority for power restoration and must be restored within 10 seconds following a loss of normal power. The committee determined minimizing power interruption to egress doors would help prevent public panic.

During the 2011 code cycle, the NFPA 99 technical committee moved automatic doors to the life safety branch, changed the term to “electrically powered doors” and provided additional clarification stating, “*Automatic doors was changed to electrically operated doors because the intent was to have doors that are electrically operated on the Life Safety Branch and not restrict automatically operated to the Life Safety Branch.*” This clarification made it clear that any power-operated door used for building egress, not just fully automatic doors, can be powered by life safety power. The 2012 NFPA 99 Handbook commentary provided additional reasoning stating, “*...automatic-opening doors make it easier to move beds and gurneys from one smoke compartment to another or, if necessary, out of the building when evacuating.*” This NFPA 99 commentary parallels with the CBC Section 1010.1.1, that requires doors serving as a means of egress used for the movement of beds and stretchers be provided with a minimum clear opening of 44 inches (1118 mm). When automatic door openers are used for these doors, they should be powered by the life safety branch to comply with the intent of CEC Section 517.33(H).

CBC Section 11B-404.3 addresses the use of automatic doors located on an accessible route, which include most public areas, patient areas, and employee areas. Automatic doors serving an accessible means of egress should be provided with maneuvering clearance prescribed in CBC Section 11B-404.2.4. If the maneuvering clearance does not meet the strike-side clearance, back-up power is necessary as allowed in CBC Section 11B-404.3. The reasoning is a person in a mobility device would become trapped and unable to egress without the proper strike-side clearance on the egress side of the door. In this situation, the automatic door operator back-up power source shall be the life safety branch. It should be noted that CBC Section 11B-404.3 does not prescribe an operable force requirement under a loss of power. So, the operable force to set the door in motion would default to the 50-pound force prescribed under CBC Section 1010.3.2.

Rated Fire Doors may be placed on automatic openers. Those associated with patient bed movement would need to be placed on the Life Safety Branch. Most of these doors would be associated with corridors as any rated doors along the rated corridor walls and the cross-corridor doors associated with a smoke compartment boundary. NFPA 80 Section 6.1.4.4 requires power (including the essential electrical system) to these operators to disconnect upon fire/smoke detection to preserve the integrity of the rated wall assembly. Thus, power-operated fire doors must be provided with the maneuvering clearance required in CBC Section 11B-404.2.4. There is no alternative due to the NFPA 80 requirements. Power-operated fire doors initial opening force shall not exceed 50 pounds and a continuing force of 15 pounds to the full-open position per CBC Section 1010.3.2.

CBC Section 11B-404.2 addresses manual doors on accessible route, and CBC Section 11B-404.2.9 sets the maximum opening force for manual doors. An exception allows manual doors at locations with multiple exterior doors to have an opening force of 8.5 pounds if a power door leaf is provided. This powered door leaf must be connected to the life safety branch per CEC Section 517.33(H). This exception is specific to this special case and should not be confused with the automatic door requirements in CBC Section 11B-404.3.

CEC Section 517.35(B)(5) requires automatically operated doors to be powered by the equipment branch. This requirement conflicts with CEC Section 517.33(H) and should have been deleted from the electrical code when CEC Section 517.33(H) was added. The National Fire Protection Association (NFPA) has corrected this oversight by deleting Section 517.35(B)(5) from the 2026 NEC. OSHPD submitted a code change proposal to delete Section 517.35(B)(5) from the 2025 CEC during the 2025 Intervening Code Adoption Cycle. Based on this activity to rectify this obvious error in the CEC, OSHPD will no longer enforce CEC Section 517.35(B)(5).

## **APPLICATION**

CEC 517.33(H) states electrically powered doors used for building egress to be powered by the life safety branch of the hospital's essential electrical system. If taken literally, the term "used for building egress" could apply to all power-operated doors and power-assisted doors since any door could be viewed as in the path of egress. As demonstrated in the background narrative, this is not the intent of CEC 517.33(H). In order to meet the intent of CEC Section 517.33(H), the following door locations must be powered by the life safety branch:

- Power-operated (fully automatic) doors in the path of building egress that utilize motion sensors or pressure pads to detect the presence of pedestrians to automatically open the doors.

- Exterior power-operated doors located at exit discharges.
- Exterior power-assisted doors located at exit discharges.
- Electrically powered cross-corridor doors in the path of egress having an opening width of 44 inches (1118 mm) or greater specified in CBC Section 1010.1.1.
- All automatic doors described in CBC 11B-404.3 that do not provide the required maneuvering clearance.

Power-operated doors at locations not listed above shall not be powered by the life safety branch.

CEC Section 517.35(B)(5) currently requires automatically operated doors to be powered by the equipment branch. This requirement conflicts with CEC Section 517.33(H) and has been deleted from the electrical code in the next code cycle. Based on this activity and to rectify this obvious error in the CEC, OSHPD will no longer enforce CEC Section 517.35(B)(5). Therefore, power-operated doors and power-assisted doors not listed above are not required to use back-up power. However, they may be powered by the equipment branch or critical branch for the effective facility operation at the discretion of health care facility owner as allowed in CEC 517.35(B)(8) and CEC 517.34(A)(10) respectively.

CBC Sections 709.5, 710.5.2.2, and 716.2.10 require smoke and draft control doors and door assemblies in corridors and smoke barriers to comply with NFPA 105 Standards for Smoke Door Assemblies and Other Opening Protectives. NFPA 80 Section 6.1.3.4 and NFPA 105 Section 6.3.5.4 require “Power-Operated Doors” intended for use as smoke door assemblies to be equipped with a releasing device that automatically disconnects the power operator at the time of fire alarm, allowing a self-closing or automatic device to close the door regardless of power failure or manual operation. The intent is that, upon detection of fire or smoke, the door(s) will close and maintain the integrity of the smoke barrier, and not accidentally open due to falling debris activating the door opener.

As noted above, and in the definitions included in the Appendix, “Power-Operated Doors” and “Power-Assisted Doors” are not the same due to their separate and distinct definitions in the CBC. These definitions reflect those used in NFPA 101 Life Safety Code and clarified in Section 7.2.1.9 “Powered doors are divided into two categories – power-assisted or low energy power-operated doors, and power-operated doors.” NFPA 80 Section 6.1.3.4 and NFPA 105 Section 6.3.5.4 are specific to Power-Operated Doors and is not to be applied to Power-Assisted Doors, even if they are placed in a smoke barrier or smoke partition. Power-Assisted Doors will not open automatically under power. They are categorized as “self-closing” doors because when opened and released, return to the closed position (NFPA 80 Section 3.3.104). Power-Assisted Doors may be connected to the equipment or critical branch power required for the smoke control system and do not have to drop power in an alarm condition.

Original signed	03/20/2026
Chris Tokas, Deputy Director	Date

## APPENDIX

## 2025 California Building Standards Code, Title 24, California Code of Regulations

## 2025 California Building Code, Part 2, Volume 1

## CHAPTER 2 DEFINITIONS

## SECTION 202—Definitions

**AUTOMATIC DOOR.** *A door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat or manual switch.*

**[BE] LOW-ENERGY POWER-OPERATED DOOR.** A swinging, sliding or folding door that opens automatically upon an action by a pedestrian such as pressing a push plate or waving a hand in front of a sensor. The door closes automatically, and operates with decreased forces and decreased speeds.

**POWER-ASSISTED DOOR. [DSA-AC]** *A door used for human passage with a mechanism that helps to open the door, or relieves the opening resistance of a door, upon the activation of a switch or a continued force applied to the door itself.*

**[BE] POWER-ASSISTED DOOR.** Swinging door which opens by reduced pushing or pulling force on the door-operating hardware. The door closes automatically after the pushing or pulling force is released and functions with decreased forces.

**[BE] POWER-OPERATED DOOR.** Swinging, sliding, or folding door which opens automatically when approached by a pedestrian or opens automatically upon an action by a pedestrian. The door closes automatically and includes provisions such as presence sensors to prevent entrapment.

## 2025 California Building Code, Part 2, Volume 1

## CHAPTER 10 MEANS OF EGRESS

## SECTION 1010—DOORS, GATES, AND TURNSTILES

**1010.1.1 Size of doors.**

... In Group I-2 or an ambulatory care facility, doors serving as means of egress doors where used for the movement of beds and stretcher patients shall provide a minimum clear opening width of 44 inches (1118 mm). Where this section requires a minimum clear opening width of 44 inches (1118 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a minimum clear opening width of 44 inches (1118 mm). The minimum clear opening height of doors shall be not less than 80 inches (2032 mm).

**1010.1.3 Forces to unlatch and open doors.** The forces to unlatch doors shall comply with the following:

1. Where door hardware operates by push or pull, the operational force to unlatch the door shall not exceed 15 pounds (67 N).
2. Where door hardware operates by rotation, the operational force to unlatch the door shall not exceed 28 inch-pounds (315 N-cm).

The force to open doors shall comply with the following:

1. For interior swinging egress doors that are manually operated, other than doors required to be fire rated, the force for pushing or pulling open the door shall not exceed 5 pounds (22 N).
2. For other swinging doors, sliding doors or folding doors, and doors required to be fire rated, the door shall require not more than a 30-pound (133 N) force to be set in motion and shall move to a full-open position when subjected to not more than a 15-pound (67 N) force.

**1010.3.2 Power-operated doors.** Where means of egress doors are operated or assisted by power, the design shall be such that in the event of power failure, the door is capable of being opened manually to permit means of egress travel or closed where necessary to safeguard means of egress. The forces required to open these doors manually shall not exceed those specified in Section 1010.1.3, except that the force to set the door in motion shall not exceed 50 pounds (220 N). The door shall be capable of opening from any position to the full width of the opening in which such door is installed when a force is applied to the door on the side from which egress is made. Power-operated swinging doors, power-operated sliding doors and power-operated folding doors shall comply with BHMA A156.10. Power-assisted swinging doors and low-energy power-operated swinging doors shall comply with BHMA A156.19. Low-energy power-operated sliding doors and low-energy power-operated folding doors shall comply with BHMA A156.38.

**2025 California Building Code, Part 2, Volume 1**  
**CHAPTER 11B ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS,**  
**COMMERCIAL BUILDINGS AND PUBLIC HOUSING**  
**DIVISION 4: Accessible Routes**  
**SECTION 11B-404—DOORS, DOORWAYS AND GATES**

**11B-404.2 Manual doors, doorways and manual gates.** Manual doors and doorways and manual gates intended for user passage shall comply with *Section 11B-404.2*.

**11B-404.2.4 Maneuvering clearances.** Minimum maneuvering clearances at doors and gates shall comply with *Section 11B-404.2.4*. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

**11B-404.2.9 Door and gate opening force.** The force for pushing or pulling open a door or gate shall be as follows:

1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.
2. Sliding or folding doors: 5 pounds (22.2 N) maximum.
3. *Required fire doors: the minimum opening force allowable by the appropriate administrative authority, not to exceed 15 pounds (66.7 N).*
4. *Exterior hinged doors: 5 pounds (22.2 N) maximum.*

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

**Exception:** When, at a single location, one of every eight exterior door leafs, or fraction of eight, is a powered door, other exterior doors at the same location, serving the same interior space, may have a maximum opening force of 8.5 pounds (37.8 N). The powered leaf(s) shall be located closest to the accessible route.

- a. Powered doors shall comply with Section 11B-404.3. Powered doors shall be fully automatic doors complying with Builders Hardware Manufacturers' Association (BHMA) A156.10 or low energy operated doors complying with BHMA A156.19.
- b. Powered doors serving a building or facility with an occupancy of 150 or more shall be provided with a back-up battery or back-up generator. The back-up power source shall be able to cycle the door a minimum of 100 cycles.
- c. Powered doors shall be controlled on both the interior and exterior sides of the doors by sensing devices, push plates, vertical actuation bars or other similar operating devices complying with Section 11B-309.
- d. ...

**11B-404.3 Automatic and power-assisted doors and gates.** Automatic doors and automatic gates shall comply with Section 11B-404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10. Low-energy and power-assisted doors shall comply with ANSI/BHMA A156.19.

**11B-404.3.2 Maneuvering clearance.** Clearances at power-assisted doors and gates shall comply with Section 11B-404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with Section 11B-404.2.4.

**Exception:** Where automatic doors and gates remain open in the power-off condition, compliance with Section 11B-404.2.4 shall not be required.

**2025 California Electrical Code, Part 3  
Chapter 5 Special Occupancies  
ARTICLE 517 Health Care Facilities**

**517.33 Life Safety Branch.** The life safety branch shall be limited to circuits essential to life safety. [99:6.7.5.1.2.3]

No functions other than those listed in 517.33(A) through (H) shall be connected to the life safety branch. The life safety branch shall supply power as follows:

...

**(H) Automatic Doors.** Electrically powered doors used for building egress. [99:6.7.5.1.2.4(6)]

**517.34 Critical Branch.**

**(A) Task Illumination, Fixed Equipment, and Selected Receptacles.** The critical branch shall supply power for task illumination, fixed equipment, select receptacles, and select power circuits serving the following spaces and functions related to patient care:

...

(10) Additional task illumination, receptacles, and select power circuits needed for effective facility operation, including single-phase fractional horsepower motors, which are permitted to be connected to the critical branch. [99:6.7.5.1.3.2]

**517.35 Equipment Branch Connection to Alternate Power Source.**

...

**(B) Equipment for Delayed Automatic or Manual Connection.**

...

(5) Automatically operated doors.

...

(8) Other selected equipment shall be permitted to be served by the equipment system.

[99:6.7.5.1.4.4]