HCAi
Department of Health Care Access and Information

California Electrical Code, Part 3
Potential code changes

517.31 Requirements for the Essential Electrical System.

(B) Transfer switches. Transfer switches shall be in accordance with one of the following:

(1) The number of transfer switches to be used shall be based on reliability and design. Each branch of the essential electrical system shall have one or more transfer switches.

(2) One transfer switch shall be permitted to serve one or more branches in a facility with a continuous load on the switch of 150 kVA (120 kW) or less. [**99:**6.7.6.2.1.4]

…

(1) Optional Loads. Loads served by the generating equipment not specifically named in this article shall be served by their own transfer switches such that the following conditions apply:

…

(2) Contiguous Facilities. Hospital power sources and alternate power sources shall be permitted to serve the essential electrical systems of contiguous or same site facilities.

(3) Bypass Isolation. ***[OSHPD 1 & 2 (facilities complying with Article 517.40(B),3 (surgical clinics), 4, & 5]*** *All automatic transfer switches shall be provided with an in-phase monitor relay and shall have provisions for electrically bypassing and isolating the transfer switch. The by-pass switch shall be capable of by-passing loads to the emergency source or normal source if the selected by-pass source voltage is available.*

Exception: Bypass Isolation Automatic Transfer Switches shall not be required for fire pumps.

517.34 Critical Branch.

(A) Task Illumination, Fixed Equipment, and Select 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:

…

(11) ***[OSHPD 1, 2, 3, 4 & 5]*** *The following equipment:*

a. Electric clocks required by California Building Code, where direct wired.

b. Sensor-operated fixtures required by California Plumbing Code, ~~where direct wired~~ where an internal battery is not provided.

…

517.35 Equipment Branch Connection to Alternate Power Source.

(B) Equipment for Delayed Automatic or Manual…

(5) ~~Automatically operated door.~~ ***[OSHPD 1, 2, 3, 4 & 5] Reserved.***

517.44 Connection to Equipment Branch.

517.44 Connection to Equipment Branch. The equipment branch shall be installed and connected to the alternate power sources such that equipment described in 517.35(A)(6) is automatically restored to operation at appropriate time-lag intervals flowing the energizing of the life safety and critical branches [**99**:6.7.5.1.4.2(A)]

[OSHPD 2, 4 & 5] *The equipment branch shall be installed and connected to the alternate power source sch that equipment described in 517.44(A) is automatically restored to operation at appropriate time-lag intervals following the energizing of the life safety.* [99:6.7.5.1.4.2(A)]

…

(A) Delayed Automatic Connections to Equipment Branch. The following equipment shall be permitted to be connected to the equipment branch and shall be arranged for delayed automatic connection to the alternate power source:

(1) Task illumination and select receptacles in the following: [**99**:6.7.6.2.1.6(D)(1)]

a. Patient care spaces [99:6.7.6.2.1.6(D)(1)(a)] [OSHPD 5] Receptacles not required for psychiatric patient beds. Follow 517.18(B) Exception No. 4 requirements if receptacles are provided.

b. Medication preparation spaces [**99:**6.7.6.2.1.6(D)(1)(b)]

c. Pharmacy dispensing space [99:6.7.6.2.1.6(D)(1)(c)]

d. Nurses' stations - unless adequately lighted by corridor luminaires **[99:**6. 7 .6.2. l.6(D)(1)(d)]

(2) Supply, return, and exhaust ventilating systems for airborne infectious isolation rooms **[99:**6.7.6.2.1.6(D)(2)]

517.44 Connection to Equipment Branch. (continued)

(3) Sump pumps and other equipment required to operate for the safety of major apparatus and associated control systems and alarms [**99**:6.7.6.2.1.6(D)(3)]

(4) Smoke control and stair pressurization systems **[99:**6. 7.6.2.1.6(D)(4)]

(5) Kitchen hood supply or exhaust systems, or both, if required to operate during a fire in or under the hood **[99:6.** 7.6.2.1.6(D)(5)]

(6) Nurse call systems [**99:**6.7.6.2.1.6(D)(6)]

[OSHPD ~~1,~~ 2, 4 & 5] *Exception No. 1: Battery powered components of wireless emergency nurse call systems complying with the latest edition of ANSI/UL 1069, Standard for Hospital Signaling and Nurse Call Equipment.*

[OSHPD 2, ~~&~~ 4 & 5] *Exception No. 2: Existing nurse call systems may remain on the life safety branch.*

(7) ***[OSHPD ~~1,~~ 2, 4 & 5]*** *Selected receptacles in patient rooms or corridors so that any patient bed can be reached with a fifty (50) foot extension cord.*

(8) ***[OSHPD ~~1,~~ 2, 4 & 5]*** *Task lighting and at least one receptacle in electrical and mechanical rooms.*

(9) ***[OSHPD 1, 2, 3, 4 & 5]*** *Sensor-operated fixtures required by the California Plumbing Code~~, where direct wired~~ where an internal battery is not provided.*

(10) ***[OSHPD ~~1,~~ 2, 4 & 5]*** *Equipment as required in the Essential Plumbing Provisions of the California Plumbing Code.*

(11) ***[OSHPD 2, 4 & 5]*** *Alarm systems for monitoring negative pressure isolation rooms and positive pressure isolation rooms.*

(12) ***[OSHPD 2, 4 & 5]*** *Medication dispensing units.*

(13) ***[OSHPD 2, 4 & 5]*** *Medication refrigerators and freezers.*

517.124 [OSHPD 1, 2, 4 & 5] Technology and Telecommunications Rooms.

517.124 [OSHPD 1, 2, 4 & 5] Technology and Telecommunications Rooms. *Where technology or telecommunications rooms are provided in accordance with Section 1224.5 or 1225.5.1.1 of the California Building Code, the following requirements shall apply:*

….

695.3 Power Source(s) for Electric Motor-Driven Fire Pumps.

695.3 Power Source(s) for Electric Motor-Driven Fire Pumps. Electric motor-driven fire pumps shall have a reliable source of power. *[OSHPD 1, ~~1R,~~ 2, 3 (surgical clinics only), 4 & 5] Such reliable source of power shall consist of a normal source and an onsite Essential Electrical System (EES) power source ~~generator~~ as the alternate source.*

Informational Note: See Sections 9.3.2 and A.9.3.2 from NFPA 20-2019, *Standard for the Installation of Stationary Pumps for Fire Protection*, for guidance on the determination of power source reliability.

Informational Note: See 517.30 for EES power source requirements for Type 1EES and 517.41(C) for Type 2 EES power sources.

..

G) Power Source Selection. Selection of power source shall be performed by a transfer switch listed for fire pump service. [**20:**10.8.1.3.1]-~~***[OSHPD 1, 2 (facilities complying with Article 517.40(B), 4 & 5] (with critical care spaces)]*** *Transfer switch shall comply with Article 517.31(B)(3).*~~