

**Modify Section 26 00 01 per the following instructions:**

1. Changes are shown in **red** text.
2. Deletions are shown ~~struckthrough~~.
3. Additions are double underlined
4. The remainder of section is unchanged.

**Section Affected:**

**26 00 00 ELECTRICAL**

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**26 00 01 Owner General Requirements and Design Intent**

**.10 Scope (Basis of Design/Application of Systems)**

A. Motors

1. Motors less than 3/4 hp. shall be single phase, 115 volts for operation on 120-volt circuits. Motors 3/4 h.p. and larger shall be three phase. Motors operating on three phase, 208V shall be rated at 200V. Motors operating on three phase, 480V shall be rated at 460 volts.
2. On motors 25 hp and above at 480V or 10 hp and above at 208V, discuss the use of soft start and variable speed drives. Voltage sag exceeding 3% on motor start is unacceptable. Download and edit the [Variable Frequency Drive specification](#) from Engineering Services.
3. Where reduced voltage starters of the wye-delta type are used, only closed transition types are acceptable.

B. Elevator Service and Support Circuitry

1. Service:

- a. Where required by code, service to elevator machine shall be derived from an alternate source of power, in addition to the normal source. Alternate sources of power, whether generator or dual-primary services, shall be reviewed with Engineering Services.
  1. If standby supplies more than one (1) elevator, provide a selector switch so that only one (1) elevator can run simultaneously. This reduces yearly PSU testing requirements.
- b. Alternate source transfer switch shall contain SPDT contacts for central control system and sufficient number of poles to switch phase wires. Refer to [Transfer Switch](#) Requirements.
- c. Provide combination fused disconnect/Shunt Trip operator unit. Equipment shall include three (3) Class J dual-element time delay fuses (sized appropriately for motor HP), 100VA CPT, 10 amp 120VAC Fire Safety Switch interface relay, key to test switch, green pilot light all mounted

in a NEMA 1 enclosure. Unit shall be equal to the Bussmann "Elevator Power Module" PS series, Eaton "Elevator Control" ES series, Little Fuse LSP series, or Ferraz Shawmut ES series.

1. Where elevator machine service includes an alternate source **transfer switch**, the shunt trip circuit shall originate from a normal/ emergency circuit. Shunt trip normal / emergency circuit shall include a voltage-sensing, time delay on release (off) relay, field set for seven (7) second delay to off. Relay shall include NC contact for tie-in to fire alarm panel to annunciate "trouble". Where tie-in to fire alarm system is not possible, provide a stand-alone fire alarm system with the control panel in the machine room.
2. Support Circuitry:
  - a. Cab lighting: Dedicated 20A Life Safety circuit shared only with emergency telephone consolidator. Fuse the cab lighting disconnect at 20A, slow-blow fuse. Each additional cab requires its own dedicated lighting circuit.
  - b. Emergency Phone Consolidator: Dedicated 20A Life Safety circuit shared only with elevator cab lighting. Direct the contractor to tap the line side of the cab lighting disconnect and provide a single red receptacle with red cover at the consolidator. Engrave the receptacle cover to read "FOR EMERGENCY PHONE USE ONLY". Request further emergency phone installation design requirements from Engineering Services.
  - c. Pit Sump Pump: Dedicated circuit and devices as required by load.
  - d. Pit lighting and GFI receptacle: Dedicated 20A normal circuit for GFI receptacle(s) and required lighting fixtures. Provide two (2) 3-lamp 48 inch shallow depth (4 inches or less) lensed T8 luminaires in the pit. Luminaires may be mounted horizontal. Provide 3-way switching for pit luminaires at the top and bottom of and within reach of, pit ladder. Mount all devices in the pit higher than 24 inches AFF.
  - e. Hoistway lighting: Dedicated 20A normal circuit for required lighting fixtures. Provide one (1) 2-lamp 48 inch shallow depth (4 inches or less) lensed T8 luminaires at each landing above the pit at a maximum distance of 10 feet center-to-center. Mount luminaires vertically in a corner. Provide separate 3-way switching for hoistway luminaires (in pit and top of shaft) and 4-way switches at each access point into the hoistway (elevator door). Mount switches 48" above landing floor level and within reach of access opening.

- f. Machine Room lighting and GFI receptacle: Dedicated 20A circuit for GFI receptacle. Provide minimum of one (1) 3-lamp 48" luminaire on a switched standby power circuit. Connect lighting and related control on line side of GFI receptacle.
- g. Provide two (2) emergency stop switches, one (1) at the entrance to the pit and one (1) at the bottom of the pit ladder in the pit. Switch shall be similar to Square D #SKR9R05H13, 2-position, maintained pull, mushroom head with "PUSH EMERGENCY" engraved on the unit. Connect switches to the elevator controller(s).
- h. Illumination at each landing sill (lobby side) must be a minimum maintained level of 10 fc at all times. Source shall be unswitched, on emergency power.

**END of revision**

**Update Commentary:**

Section was updated primarily for the following reasons:

- 1) Pennsylvania elevator code requires that the illumination level on the lobby side of every landing be a minimum of 10 fc at all times. This criteria was not clear in the design standards and has been a point of problems during the inspection of elevators in recent construction.