

Article 6: Electrical Regulations

Division 2: Local Additions to the Electrical Regulations

(Added 12-9-1997 by O-18451 N.S.)

§146.0201 Purpose of Local Additions to the Electrical Regulations

The purpose of this division is to adopt regulations for electrical installations that provide for local conditions.

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

§146.0202 Alterations, Additions, Relocations, and Conversions of Existing Wiring

- (a) Additions, extensions, alterations, or removal of existing wiring installations shall be made in compliance with the provisions of this article.
 - (1) Where additions, alterations, or extensions of a wiring installation are proposed in cases where this article requires a metallic wiring method, and the existing installation was lawfully installed according to any other applicable ordinance, code, or order and is not unsafe in the opinion of the Building Official, the existing installation need not be replaced.
 - (2) Existing electrical systems may be used in connection with alterations or repairs if such electrical systems have been properly maintained and were installed in accordance with the applicable laws in effect at the time of installation. Any electrical system shall be deemed to have conformed with applicable law in effect at the time of installation and to have been maintained in good condition if currently in a good and safe condition and working properly.
 - (3) Where the electrical system, including but not limited to interior branch circuit wiring, is upgraded at the record owner's initiative, the receptacle spacing requirements of the California Electrical Code, Article 210, Section 52, shall apply.
- (b) Electrical systems in relocated buildings shall comply with the provisions of this article except for the following:
 - (1) Existing receptacle outlets located in rooms within relocated dwellings shall comply with applicable codes adopted at the time of original construction.

- (2) The spacing of new receptacle outlets shall comply with Section 210.52(A)(1) of the California Electrical Code.
- (3) Existing receptacle outlets which are not grounded shall comply with Section 406.4(D)(2) of the California Electrical Code.
- (c) In an overhead to underground conversion district, the existing electrical service shall be replaced or repaired if any one of the following conditions exists:
 - (1) When the electrical service equipment is not dead-front operated;
 - (2) When the electrical service equipment is not readily accessible;
 - (3) When the electrical service equipment is not grounded; or
 - (4) When the electrical service equipment is not adequate to carry the actual load.

(Amended 9-24-2002 by O-19104 N.S.)

(Amended 6-27-2005 by O-19392 N.S.)

(Amended 4-8-2008 by O-19727 N.S.; effective 5-8-2008.)

(Amended 7-31-2012 by O-20187 N.S.; effective 8-30-2012.)

(Amended 4-6-2016 by O-20624 N.S.; effective 5-6-2016.)

§146.0203 Materials for Electrical Installations

- (a) All electrical materials, devices, applications, and equipment installed or used, shall be in conformity with the provisions of this article and with approved standards for safety to life and property.
- (b) Listing or labelings, as conforming to the Standards of the Underwriters Laboratories, Inc., Uniform Building Code Standards, or other approved Nationally Recognized Testing Laboratories, shall be prima facie evidence of conformity with the approved standards for safety to life and property when such standards are consistent with the method of installation.
- (c) Previously used materials shall not be reused in any work without the written approval obtained in advance from the Building Official.

(Amended 9-24-2002 by O-19104 N.S.)

§146.0204 Circuit Cards

A complete schedule of circuits, showing the number and arrangement of outlets on each circuit, shall be available at the time of rough wiring inspection. Circuit cards furnished by the Development Services Department shall be used for this purpose. In lieu of a circuit card, an approved wiring plan may be used.

(Amended 9-24-2002 by O-19104 N.S.)

(Amended 4-8-2008 by O-19727 N.S.; effective 5-8-2008.)

§146.0205 Labeling

- (a) Meter bases shall be labeled by address to identify the occupancy served.
- (b) Meter rooms shall be identified with lettering not less than 2 inches high, or other approved means.

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

§146.0206 Aluminum Conductors and Conduit

- (a) An approved type of inhibitor shall be used on all nonplated stranded aluminum conductor terminations.
- (b) Aluminum conductors installed underground shall be installed in an approved raceway.
- (c) Aluminum grounding conductors where used outdoors or where penetrating the exterior wall shall be factory-insulated.
- (d) Aluminum conduit, boxes, or fittings shall not be used embedded in earth, concrete, plaster, or within 18 inches of the earth unless the exterior finish of the aluminum conduit, boxes, or fittings is approved for the purposes.

(Renumbered from Sec. 146.0209 on 9-24-2002 by O-19104 N.S.)

§146.0207 Limitation of Residential Current Utilization Outlets

- (a) The number of current consuming outlets on one circuit shall not exceed the following:
 - (1) Four on an appliance circuit.
 - (2) Fifteen on a lighting circuit. In lieu of the maximum 15 outlets, when a circuit supplies only permanent luminaires, additional luminaires will be allowed when a calculation based on actual wattages is provided.

*(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)
(Renumbered from Sec. 146.0210, 6-27-2005 by O-19392 N.S.)
(Amended 4-8-2008 by O-19727 N.S; effective 5-8-2008.)*

§146.0208 Local Modifications and Additions to Article 690 Solar Photovoltaic (PV) Systems of the California Electrical Code

- (a) Article 690 of the California Electrical Code is adopted by reference with modifications pursuant to Section 146.0106 of the Land Development Code.
- (b) Section 690.12 Rapid Shut Down of PV Systems on Buildings is adopted with modifications as follows:

690.12 Rapid Shut Down of PV Systems on Buildings. PV system circuits installed on or in buildings shall include a rapid shut down function that controls specific conductors in accordance with subsections (1) through (5) as follows:

- (1) Requirements for controlled conductors shall apply only to PV system conductors of more than 1.5m (5 ft.) in length inside a building or more than 3m (10 ft.) from a PV array.
- (2) Controlled conductors shall be limited to no more than 30 volts and 240VA within 30 seconds of rapid shutdown initiation.
- (3) Voltage and power shall be measured between any two conductors and between any conductor and ground.
- (4) The rapid shutdown initiation methods shall be labeled in accordance with 690.56(C) of the California Electrical Code.

- (5) Equipment that performs rapid shutdown shall meet the requirements in Article 110 of the California Electrical Code and shall be listed and labeled by an approved Nationally Recognized Testing Laboratory.

(“Local Modifications and Additions to Article 690 Solar Photovoltaic (PV) Systems of the California Electrical Code” added 7-20-2018 by O-20958 N.S.; effective 8-19-2018.)

§146.0209 Local Modifications and Additions to Section 705.12 “Point of Connection” of the California Electrical Code

- (a) Section 705.12(D)(3) of the California Electrical Code is adopted with additions and modifications pursuant to Sections 146.0106 and 146.0107 of the Land Development Code.
- (b) Section 705.12(D)(3) “Bus or Conductor Ampere Rating” is modified by adding subsection (e) as follows: (e) A connection at either end, but not both ends, of a center-fed panel board in dwellings shall be permitted where the sum of 125 percent of the power source(s) output circuit current and the rating of the overcurrent device protecting the busbar does not exceed 120 percent of the current rating of the busbar. For the purpose of this section, dwelling has the same meaning as in the California Residential Code and the California Building Code.

(“Local Modifications and Additions to Section 705.12 “Point of Connection” of the California Electrical Code” added 7-20-2018 by O-20958 N.S.; effective 8-19-2018.)