

# 2011 National Electrical Code

City of Victoria

Adopted: August 2, 2011

## Sec. 5-100. Adoption of Published Code.

There is hereby adopted by the City for the purpose of establishing rules and regulations for the safe installation and maintenance of all electrical equipment and systems, that certain code known as the National Electrical Code, 2011 Edition, published by the National Fire Protection Association, save and except such portions as are hereinafter deleted, modified, or amended, of which a copy is on file with the City Secretary and the Development Services Department, and the same is hereby adopted and incorporated as fully as if set out at length herein, and from the date on which this section shall take effect, the provisions thereof shall be controlling in the installation of electrical systems therein contained within the corporate limits of the City.

- (a) *Standards and requirements.* All electrical construction and all materials and appliances used in connection with the installation, maintenance, and operation of electrical wiring, apparatus or equipment for utilization of electrical energy for light, heat, or power inside the city limits of Victoria, Texas, shall conform to the rules and regulations of the National Electrical Code and the meter installation specifications of the electrical utility company as the latter two (2) exist and as they may be adopted from time to time. In the event of a conflict between this Code and other codes adopted or referenced, the preference will proceed in the following order:
1. Director.
  2. National Electrical Code.
  3. Specifications for electric service and meter installation, utility companies.
  4. Electrical Board of Adjustments and Appeals.
- (b) *Unused electrical equipment.* All unused electrical equipment within or on public or private building premises shall be removed if any such equipment, in the opinion of the director, constitutes a hazard or danger to life or property.

On any structure which is renovated, remodeled, or relocated, the director shall have the right of inspection as set out elsewhere herein, and if, upon inspection, the director shall discover electrical conditions hazardous to health, safety or welfare, he may cause corrections to be made.

## Sec. 5-101. Reserved.

## Sec. 5-102: Deletions to Published Code.

The following portions of the Electrical Code are hereby deleted:

- (1) *Section 100-1 Definitions, Qualified Person, Informational Note*
- (2) *Section 210.12, Arc Fault Circuit Interrupter Protection*
- (3) *Section 440.65, Leakage Current Detector Interrupter and Arc Fault Circuit Interrupter*

## Sec. 5-103: Amendments to Published Code.

The National Electrical Code, 2011 edition, as adopted by the City Council of the City of Victoria, is amended as follows:

(a) *Section 110.8 Wiring Methods* is amended by adding the following subparagraphs:

1. The following types of occupancies as defined in the Building Code adopted by Section 5-60 of the City Code may use any wiring method recognized as suitable by this code:
  - a. Group R-2 occupancies (Multiple dwellings - not transient - and their accessory uses) that are not more than two (2) stories tall with no more than ten (10) dwelling units each.
  - b. Group R-3 occupancies (1 & 2 family dwellings and their accessory uses).
  - c. Group R-4 occupancies (Residential Care/Assisted Living Facilities).
  - d. Group U occupancies (Utility and Miscellaneous).
  - e. Group B occupancies (Business) (Single Occupancy Buildings under 5,000 square foot that are not more than 2 stories).
  
2. The following types of occupancies as defined in the Building Code adopted by Section 5-60 of the City Code may use any wiring method recognized as suitable by this code, except those methods provided by:  
*Article 398 - Open Wiring on Insulators,*  
*Article 394 - Concealed Knob-And-Tube Wiring,*  
*Article 334 - Nonmetallic-Sheathed Cable, Type NM,NMC,NMS,*  
*Article 338 - Service-Entrance Cable Type SE,USE,*  
*Article 340 - Underground Feeder and Branch-Circuit Cable: Type UF.*
  - a. Group B occupancies (Business) (other than single occupancy buildings under 5000 square foot that are not more than 2 stories).
  - b. Group F occupancies (Factory-Industrial).
  - c. Group M occupancies (Mercantile).
  - d. Group R-1 occupancies (Residential - transient).
  - e. Group S occupancies (Storage).

If approved by the director and conducted in compliance with any conditions imposed by him, minor repairs and extensions of not more than 10% of the existing wiring methods may be made to the aforementioned five types of occupancies, with the same wiring methods existing at the time of construction.

3. The following occupancies as defined in the Building Code adopted by Section 5-60 of the City Code may use any wiring method recognized as suitable by this code, except those methods provided by;  
*Article 398 - Open Wiring on Insulators,*  
*Article 394 - Concealed Knob-And-Tube Wiring,*  
*Article 362 Type ENT - Electrical Nonmetallic Tubing, Type ENT,*  
*Article 334 - Nonmetallic-Sheathed Cable, Type NM,NMC,NMS,*  
*Article 338 - Service-Entrance Cable, Type SE,USE,*  
*Article 340 - Underground Feeder and Branch-Circuit Cable: Type UF.*

- a. Group A occupancies (Assembly).
- b. Group E occupancies (Educational).
- c. Group H occupancies (Hazardous).
- d. Group I occupancies (Institutional).

If approved by the director and conducted in compliance with any conditions imposed by him, minor repairs and extensions of not more than 10% of the existing wiring methods may be made to the aforementioned four types of occupancies, with the same wiring methods existing at the time of construction.

- (b) *Section 110.14 Electrical Connections* is amended by adding the following sentence at the end of the-second paragraph, prior to the Informational Note (IN):

If aluminum conductors are installed, they must be terminated according to manufacturer's recommendations and have a coating of oxidation inhibitor applied.

- (c) *Section 210.19(A)(4) Other Loads* is amended in the first paragraph to read as follows: Branch-circuit conductors supplying loads other than cooking appliances as covered in Section 210.19(A)(2) and as listed in Section 210.2 shall have an ampacity sufficient for the loads served and shall not be smaller than No. 12 copper or No. 6 aluminum or copper clad aluminum.

- (d) *Table 210.24 Summary of Branch-Circuit Requirements* is amended to replace all references to size 14 (AWG) conductors with size 12 (AWG).

- (e) *Section 210.25(B) Common Area Branch Circuits* is amended by adding the following sentence to the end of the first paragraph:

In addition to the limitations contained herein, no general purpose branch circuit shall have more than ten (10) outlets per circuit.

- (f) *Section 210.52(B)(1) Receptacle Outlets Served* is amended by adding the following sentence to the end of the first paragraph:

The branch circuits serving kitchen counter top receptacles shall comply with the maximum loads specified in Section 210.23, but in no case shall such circuits have more than three (3) duplex receptacles per circuit.

- (g) *Section 230.28 Service Masts as Supports* is amended to read as follows:

Where a service mast is used for the support of service-drop conductors, it shall be of adequate strength or be supported by braces or guys to withstand the strain imposed by the service drop. Only raceway-type service masts shall be used; all raceway fittings shall be identified for use with service masts. Where a service mast extends through the roof, such mast shall be flashed so as to make the roof penetration watertight. In addition to the aforementioned provisions, a minimum of two (2) inch rigid conduit shall be used for service mast, which is the sole support of the service entrance conductors. Only power service-drop conductors shall be permitted to be attached to a service mast. (Note: See Article IX, Section 5-100 for additional information).

- (h) *Section 230.31(a) Size and Rating, General* is amended to read as follows:

Service-lateral conductors shall have sufficient ampacity to carry the current for the load as computed in accordance with Article 220 of this electrical code and shall have adequate mechanical strength. Service-lateral conductors located in the "Original Townsite" and served by the "Downtown Electrical Service Network", shall have copper conductors rated as required by the utility company, but in no case less than that required by the utility company, or Article 220 of this electrical code. (Note: See Article IX, Section 5-100 for additional information).

- (i) *Section 230.43 Wiring Methods for 600 Volts, Nominal, or Less* is amended to read as follows:

Service-entrance conductors shall be installed in accordance with the applicable requirements of this Code covering the type of wiring method used and limited to the following methods:

1. rigid metal conduit;
2. intermediate metal conduit;
3. electrical metallic tubing;
4. electrical nonmetallic tubing (ENT);
5. auxiliary gutters;
6. rigid non-metallic conduit;
7. mineral-insulated, metal-sheathed cable;
8. Type MC cable;
9. liquidtight flexible metal conduit not over 6 ft (1.83 m) long between raceways, or between raceway and service equipment, with equipment bonding jumper routed with the flexible metal conduit or the liquidtight flexible metal conduit according to the provisions of Section 250.102 (A), (C), and (D);
10. or liquidtight flexible nonmetallic conduit.

- (j) *Section 230.70(A) (1)(2)(3)VI Service Equipment - Disconnecting Means, General* is amended to read as follows:

*230-70 (A) Location.* The service disconnecting means shall be installed at a readily accessible location outside of a building or structure.

- (k) *Section 250.50 Grounding Electrode System* is amended by adding the following paragraph at the end of the Exception and prior to Section 250.52.

All new or rebuilt services shall have a driven ground rod as described in Section 250.52 (A)(5)(b) and 250.53 (G).

- (l) *Table 310.106(A) Minimum Size of Conductors* is amended to have the 0 through 2000 Voltage Rating and the 2001 to 8000 Voltage Rating read as follows:

<u>Voltage Rating of Conductor</u>	<u>Minimum Conductor Size - AWG</u>
0 through 2000	12 Copper 6 Aluminum or Copper-Clad Aluminum
2001 through 8000	8 Copper 6 Aluminum or Copper-Clad Aluminum

- (m) *Section 406.12 Tamper Resistant Receptacles in Dwelling Units, Exception (1) is amended to read:  
(1) Receptacles located more than 42” above the finished floor.*
- (n) *Section 406.13 Tamper Resistant Receptacles in Guest Rooms and Guest Suites is amended to read:  
All nonlocking type 125 volt, 15 and 20 ampere receptacles located in guest rooms and guest suites less than 42’ above the finished floor shall be listed tamper resistant receptacles.*
- (o) *Section 514.8 Underground Wiring is amended by adding the following paragraph after the first paragraph and preceding Exception No. 1:*

In addition to the requirements contained in this Article, a separate raceway shall run to each dispenser and fuel pump from the controller and power sources or approved box (enclosure).

**Sec. 5-104: Inspections.**

- (a) *Inspections, general.* A person required by Section 5-41(c) of the City Code to obtain a permit shall allow an authorized agent of the City to inspect all new electrical work and such portions as may be affected by the new work and/or changes to ensure compliance with the requirements of this chapter and approved plans. A permit holder or the holder’s representative may be required by the inspector to be present at all inspections.
- (b) *Inspections, required.* A person required by Section 5-41(c) of the City Code to obtain a permit shall allow an authorized agent of the City of Victoria to inspect:
  1. temporary power poles, as provided for in Article 590 of the 2011 National Electrical Code;
  2. underground raceways, prior to the covering of an electrical raceway (such as those contained in a buried ditch or beneath a concrete slab-on-grade foundation);
  3. rough-in, prior to covering wiring within a wall, floor or ceiling spaces;
  4. any electrical raceway within a wall, floor or ceiling, prior to covering it;
  5. temporary power, prior to connecting any electrical system to an energizing source, such as a utility provider or individual electrical generating system;
  6. all electrical work when the electrical system is completed and ready for connection to an energized source of electricity; and
  7. anytime after any portion of an electrical system has been found to be in non-compliance with the 2011 National Electrical Code as amended herein.

**Sec. 5-105: Certificate of Approval.**

Upon satisfactory completion of the final inspection of an electrical permit project, the director shall issue a certificate of approval for the work authorized in the electrical permit. Electrical service shall not be connected/commenced or reinstated in a permanent manner at the project site (applicable permit location), until all required certificates of approval have been issued.

**Sec. 5-106--5-109: Reserved.**