

Ordinance No. 2016-M-19

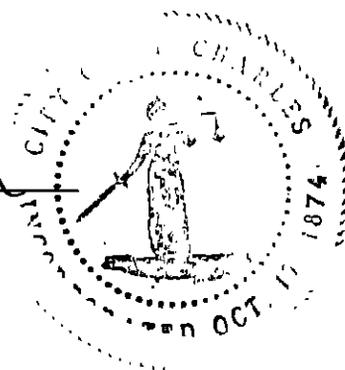
An Ordinance Amending Chapter 15.04 "Building Code", Section 15.04.040 "National Electrical Code 2008 Regulations Adopted and Modified" and Section 15.04.045 "Amendments to 2008 National Electrical Code NFPA 70" of the St. Charles Municipal Code.

**Adopted by the
City Council
of the
City of St. Charles
May 16, 2016**

**Published in pamphlet form by
authority of the City Council
of the City of St. Charles,
Kane and Du Page Counties,
Illinois, May 21, 2016**

Nancy Garrison

City Clerk



(SEAL)

City of St. Charles, Illinois
Ordinance No. 2016-M-19

**An Ordinance Amending Chapter 15.04 “Building Code”, Section 15.04.040
“National Electrical Code 2008 Regulations Adopted and Modified” and
Section 15.04.045 “Amendments to 2008 National Electrical Code NFPA 70”
of the St. Charles Municipal Code**

WHEREAS, the standard code known as NFPA 70, the National Electrical Code, has been updated by the National Fire Protection Associations, Inc.; and

WHEREAS, not less than one (1) copy of said code has been and is on file in the Office of the Clerk of the City of St. Charles, Illinois for more than thirty (30) days prior to the passage and approval of the Ordinance; and

WHEREAS, the Building Official has provided notice to the Illinois Building Commission regarding proposed changes to regulations regarding construction related activities within the City of St. Charles, as provided by 20 ILCS 3918/55; and

WHEREAS, the City Council finds it to be in the interest of City of St. Charles to periodically update codes regulating building and structures.

NOW THEREFORE, BE IT ORDAINED by the City Council of the City of St. Charles, Kane and DuPage Counties, Illinois as follows:

SECTION ONE: That Title 15, “Building Construction”, Chapter 15.04 “Building Code” of the St. Charles Municipal Code be and is hereby amended by deleting Section 15.04.040 and substituting the following therefor:

15.04.040 National Electrical Code 2014 – Regulations Adopted and Modified.
The provisions of the 2014 Edition of the National Electrical Code, NFPA 70, issued by the National Fire Protection Association, Inc., One Batterymarch Park, Quincy, Massachusetts, 02269 (hereinafter sometimes referred to as the “NEC”) not less than one (1) copy of which have been and are on file in the Office of the Clerk of the City of St. Charles, Illinois, for more than thirty (30) days, together with the amendments listed herein, are hereby adopted.

15.04.45 Amendments to the 2014 National Electric Code NFPA 70.

1. **Article 110 Section 110.5 Conductors:** Revise by deleting and substituting the following:

Other than service conductors provided by the Utility or multiplexed aerial cables as allowed in Article 396 Section 396.2(4) that comply with Article 310, all conductors shall be copper unless otherwise specifically approved by the City of St. Charles Building and Code Enforcement or the City of St. Charles Electric Utility.

2. **Article 110 Section 110.13 (A) Mounting:** Add a new paragraph to read as follows:

(A) Mounting. All electric panels mounted on concrete or masonry walls that are either exterior walls or below grade, shall have a minimum of 1/2 inch plywood installed behind the panel, or the panel shall be mounted to structural mounting channel that provides a minimum 1/2 inch airspace between the panel and the wall, for the purposes of support and to help prevent moisture entering the panel. Such mounting shall allow panel replacement if required.

3. **Article 210 Section 210.70 Lighting Outlets Required:** Add a new paragraph to read as follows:

(D) Illumination of Mechanical Equipment. All occupancies shall have luminaries installed within four (4) feet of the front of all electric panels and within four (4) feet of all mechanical equipment to enable servicing the equipment.

4. **Article 230 Services**

a. Section 230.2 Number of Services, (B) Special Occupancies: By special permission, which means written consent and approval by the City of St. Charles Municipal Electric Utility, additional services shall be permitted for either of the following:

- (1) Multiple-occupancy buildings where there is no available space for service equipment accessible to all occupants
- (2) A single building or other structure sufficiently large to make two or more services necessary

Add new paragraph to read as follows:

(3) Multiple-occupancy buildings will have either an external building main disconnect, a key operated shunt trip main disconnect, or parallel key operated shunt trip main disconnects for all services supplied to the building. Parallel shunt trip key operated main disconnects must be provided and installed in a manner approved by the City St. Charles Municipal Electric Utility.

b. **Section 230.3 One Building or Other Structures Not to be Supplied Through Another:** Revise by deleting and substituting the following:

230.3 One Building, or Other Structure, or Tenant Space, Not to be Supplied Through Another; : Service conductors, feeders, or branch circuits of one building, or other structure, or tenant space shall not pass through the interior of another building, or structure, or tenant space.

c. **Section 230.6 Conductors Considered Outside the Building:** Add new paragraph to read as follows:

(6) Where installed in any "common area" (hallway, corridor or common space accessible to multiple premises) that meets the construction requirements of a one-hour fire rating. Conductors shall be installed in solid metal raceway conduit within "common areas" and shall have a label every five (5) feet identifying the conductors within the conduit.

d. **Section 230.44 Cable Trays: Delete entire section**

e. **Section 230.46 Spliced Conductors:** Revise by deleting and substituting the following:

230.46 Spliced Conductors: : Splices in service entrance conductors, other than those installed by the Electric Utility, are not allowed.

f. **Section 230.70 General (A) Location, (1) Readily Accessible Location:** Revise by deleting and substituting the following:

(1) Readily Accessible Location. Service disconnecting means shall be provided either outside the building or through a shunt trip main with remote control at the Fire Control Panel and shall have provisions to allow the service to be locked open. Each building/tenant space shall have a main disconnect incorporated within the main distribution panel inside the space in addition to any external main or building shunt trip main for multiple occupancy buildings.

g. **Section 230.70 General (A) Location: (3) Remote Control:** revise by deleting and substituting the following: Where a remote control device (s) is used to actuate the service disconnecting means, the service conductors installed inside a building without over current protection shall not exceed five (5) feet in length.

h. **Section 230.79 Rating of Service Disconnecting Means (C) One Family Dwelling, (D) All Others:** Revise by deleting and substituting the following:

(C) One or Two Family Dwelling: All electric panel installations for new single-family detached dwellings shall be a minimum of 200-ampere rated. The main service disconnecting means (circuit breaker or fused switch) shall be 200-ampere rated.

(D) Multi-family and Single-family Attached Dwellings. All apartment or dwelling unit electric panel installations for new multi-family dwellings and new single family attached six (6) or less dwelling units shall be a minimum of 100-ampere rated. The occupancy main service disconnecting means (circuit breaker or fused switch) for each apartment or dwelling unit shall be a minimum of 100-ampere rated.

(E) All Others. For all other installations, the service disconnecting means shall have a rating of not less than 60-ampere, unless approved by the City of St. Charles Municipal Electric Utility.

5. **Article 250 Grounding and Bonding**

a. **Section 250.24 Grounding Service-Supplied Alternating-Current Systems (A) System Grounding Connections (1) General:** Revise by deleting and substituting the following: The grounding electrode conductor connection from each grounding

- b. electrode shall be made at a single point at the terminal or bus to which the grounded service conductor is connected at the service disconnecting means.
- c. **Section 250.53 Grounding Electrode System Installation (D) Metal Underground Water Pipe (2) Supplemental Electrode Required:** revise by deleting and substituting: A metal underground water pipe shall be supplemented by an additional electrode of a type specified in 250.52 (A) (2-8). If the additional is a rod type as specified in 250.52 (A) (5), then electrode must also have a supplemental additional electrode of a type specified in 250.53 (A) (2) unless as noted in 250.53 (A) (2) Exception the first supplemental electrode has a resistance to earth of 25 ohms or less as evidenced by a fall-of-potential test witnessed by the City of St. Charles Municipal Electric Utility. Supplemental electrodes shall be connected with a grounding electrode conductor to the grounded service-entrance conductor at the service main disconnecting means.
- d. **Section 250.62 Grounding Electrode Conductor Material:** revise by deleting and substituting the following: All grounding electrode conductors shall be copper, and the installation of the conductor shall protect against corrosion. Conductors of the wire type shall be solid or stranded, and insulated, or covered, or bare.
- e. **Section 250.64 Grounding Electrode Conductor Installation: Aluminum or Copper-Clad Aluminum Conductors.** Delete entire Item (A)
(C) Continuous: revise by deleting and substituting the following: Grounding electrode conductor(s) shall be installed in one continuous length without a splice or joint.
(E) Raceways and Enclosures for Grounding Electrode Conductors. (1) General: revise by including additional language as follows: Ferrous metal raceways and enclosures for grounding electrode conductors shall be electrically continuous from the point of attachment to cabinets or equipment to the grounding electrode and shall be securely fastened to the ground clamp or fitting. Ferrous metal raceways and enclosures shall be bonded at each end of the raceway or enclosure to the grounding electrode or grounding electrode conductor. All grounding electrode conductor raceways that are exterior and exposed above grade shall be ferrous metal RMC or IMC conduit. Schedule 40 rigid PVC conduit is permitted for grounding electrode conductor raceways installed both above grade and underground in the interior of a building, as well as exterior underground if the entire raceway is-completely below grade. Schedule 40 rigid PVC grounding electrode conductor raceways are not required to be electrically continuous.
(F) Installation to Electrode(s). revise by deleting and substituting the following: Unless granted a specific exemption by the City of St. Charles Municipal Electric Utility, all grounding electrode conductors and raceways must be installed separately and continuously from each grounding electrode to the service grounded conductor (neutral) grounding/bonding termination point at the service main disconnect.
- f. **Section 250.68 Grounding Electrode Conductor and Bonding Jumper Connection to Grounding Electrodes (C) Grounding Electrode Connections:** revise by deleting (1) exception; and substituting the following for: (2) The metal

connections shall be "break before make" to insure the complete separation from the utility system and the generator supply. No parallel operation with the utility system shall be allowed. A minimum time delay of three (3) seconds and a maximum of ten (10) seconds after loss of utility power should be established before starting the generator. Utilization of Kirk Key systems or other mechanical means of isolating generating sources from the utility source are not allowed.

b. **III Sources of Power, Section (B) Generator Set:** Add new paragraph to read as follows:

(6) Generator Noise Output. The maximum noise level allowable within ten (10') feet of transformer, switchgear, or other specified equipment as required and operated by the City of St. Charles Municipal Electric Utility (SCMEU) is 80dBA (decibels). Sound enclosures or sound barrier walls or other sound mitigation may be required if the noise level near SCMEU equipment exceeds 80dBA. Analysis of the need for sound abatement equipment will be performed by the City of St. Charles Municipal Electric Utility personnel after the generator is installed and tested.

SECTION TWO: That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this Ordinance are, to the extent of such conflict, expressly repealed.

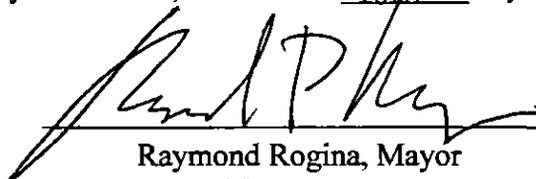
SECTION THREE: That after the adoption and approval hereof, this Ordinance shall be printed or published in book or pamphlet form, published by the authority of the City Council.

SECTION FOUR: That this Ordinance shall be in full force and effect on May 16, 2016.

Presented to the City Council of the City St. Charles, Illinois this 16th day of May, 2016.

Passed to the City Council of the City St. Charles, Illinois this 16th day of May, 2016.

Approved by the Mayor of the City St. Charles, Illinois this 16th day of May, 2016.


Raymond Rogina, Mayor

ATTEST:





City Clerk

COUNCIL VOTE:

Ayes: 10

Nays: 0

Abstain: 0

Absent: 0

APPROVED AS TO FORM:

City Attorney

DATE:

State of Illinois)
)
) ss.
Counties of Kane and DuPage)

Certificate

I, NANCY GARRISON, certify that I am the duly elected and acting Municipal City Clerk of the City of St. Charles, Kane and DuPage Counties, Illinois.

I further certify that on May 16, 2016, the Corporate Authorities of such municipality passed and approved Ordinance No. 2016-M-19, entitled

"An Ordinance Amending Chapter 15.04 "Building Code", Section 15.04.040 "National Electrical Code 2008 Regulations Adopted and Modified" and Section 15.04.045 "Amendments to 2008 National Electrical Code NFPA 70" of the St. Charles Municipal Code."

which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. 2016-M-19, including the Ordinance and a cover sheet thereof was prepared, and a copy of such Ordinance was posted in the municipal building, commencing on May 21, 2016, and continuing for at least ten days thereafter. Copies of such Ordinance were also available for public inspection upon request in the office of the municipal clerk.

DATED at St. Charles, Illinois, this 16th day of May, 2016.

Nancy Garrison
Municipal Clerk

(S E A L) City of St. Charles, Illinois

