



**SOUTHERN NEVADA
AMENDMENTS**

TO THE

2017 NATIONAL ELECTRICAL CODE

**AS AMENDMENT BY THE CITY OF
NORTH LAS VEGAS**



PREFACE

This document was developed by the Southern Nevada Building Officials' National Electrical Code and presents recommended amendments to the 2018 National Electrical Code (NEC) as published by the National Fire Protection Association.

Participation in the 2018 IBC Committee was open to all interested parties. However, voting on amendment proposals was limited to one vote each for six of Southern Nevada municipalities (Clark County, Henderson, Las Vegas, North Las Vegas, Boulder City, and Mesquite), the Clark County School District, and three industry representatives. All committee proceedings were conducted in accordance with Robert's Rules of Order.

The recommended amendments contained herein are not code unless adopted and codified by governmental jurisdictions. These amendments are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any alternates have been approved and their use authorized by the Building Official. This document may be copied and used in whole or in part without permission or approval from the organizations listed on the cover page.

Table of contents

Article 100 Definitions	4
Section 110.12 Mechanical Execution of Work	4
Section 210.23 Permissible Loads	4
Section 210.52(A)(2) Wall Space	5
Section 210.52(F) Laundry Areas	6
Section 210.70(A)(1) Habitable Rooms	6
Section 210.70(A)(2) Additional Locations	6
Section 220.84(C) Calculated Loads	7
Section 225.32 Location	7
Section 230.11 Location of Customer Owned Service Lateral or Drop	8
Section 230.70 General.	8
Section 230.202 Service-Entrance Conductors	9
Section 230.205(C) Remote	
Control.....	9
Section 240.6 Standard Ampere Ratings	10
Section 240.86 Series	
Ratings.....	10
Section 250.32(A) Grounding Electrode	10
Section 250.50 Grounding Electrode System	10
Section 250.52(A)(5) Rod Electrodes	10
Section 250.53 Grounding Electrode System Installation	11
Section 250.94 Bonding for Other Systems	12
Section 250.120(0) Equipment Grounding Conductor	13
Section 352.10(F) Exposed	14
Section 358.12 EMT - Uses Not Permitted	14
Section 514.11(A) General.	14
Section 600.41(0) Protection	14
Section 680.42(8) Bonding	15
Section 700.1 Scope	15
Section 700.10(0) Fire Protection	15

Section 700.10(0)(2) Feeder-Circuit Equipment. 16
Section 700.12 General Requirements 16
Section 700.12(8)(7) Location 17

Section Article 100

Add a new definition of Abandoned Conductor, as follows:

Conductor, Abandoned. Installed conductor or cable that is not terminated at both ends at a connector or other equipment and not identified for future use with a tag.

Section 110.12

Revise Section 110.12, as follows:

110.12 Mechanical Execution of Work.

Paragraph A and B remain unchanged

(C) Abandoned Conductors and Cables. For those structures regulated by the Building or Swimming Pool Code, no electrical conductors or cables shall be abandoned in place. Such conductors or cables shall be removed from the building or structure unless otherwise approved by the Building Official or designated representative based upon consideration of safety and combustibility.

(D) Used Materials and Equipment. The use of used materials which meet the requirements of this code for new materials is permitted. Used equipment and devices shall not be reused unless in conformance with 110.21(A)(2), or is approved by the building official. Equipment used in temporary installations, such as power poles, generators, etc. are allowed to be re-used provided they are properly maintained and approved.

(E) Testing. All equipment requiring setting of adjustable values shall be set in accordance with the drawings and specification or approved shop submittals. All values shall be selected by a licensed professional engineer or other qualified persons engaged primarily in the design, installation, or maintenance of electrical systems approved by the AHJ. These settings shall be documented, verified and made available to those authorized to design, install, inspect, maintain, and operate the system.

Required settings documentation shall be displayed at the location of the equipment, such as ground fault protection settings (GFP), adjustable trip for circuit breakers, relay, selective coordination settings and series rated equipment. Documentation of settings shall be retained for future use with all assumptions and equipment identified.

Section 110.30

Revise Section 110.30, as follows:

110.30 General. Conductors and equipment used on circuits over 1000 volts, nominal, shall comply with Part I of this article and with 110.30 through 110.41, which supplement or modify Part I. In no case shall the provisions of this part apply to equipment on the supply side of the service point.

- (1) All permit submittals with equipment and/or systems 1000 volts or above shall be reviewed and approved by a third-party agency or peer reviewed by those having experience with these systems and approved by the Authority Having Jurisdiction.
- (2) All equipment and systems associated with 1000 volts or above shall be inspected by a third-party at the expense of the property owner to verify the equipment and system(s) are installed in accordance to the design and equipment listings. The third-party shall be approved by the Authority Having Jurisdiction.
- (3) Testing of said equipment shall be completed by an approved testing organization approved by the Authority Having Jurisdiction. Testing shall be performed as per 225.56. Reports shall be submitted for review and acceptance by the AHJ prior to approval of a final inspection.

Section 210.8(B)(9)

Add a new Subsection (11) to Section 210.8(B)

210.8 Ground-Fault Circuit Interrupter Protection for Personnel.

(B) Other Than Dwelling Units.

Items 1-10 remain unchanged

- (11) Food and/or beverage serving areas regulated by the Health District.

Section 210.23(E)

Add a new Subsection (E) to Section 210.23

210.23 Permissible Loads, Multiple-Outlet Branch Circuits. In no case shall the load exceed the branch-circuit ampere rating. A branch circuit supplying two or more outlets or receptacles shall supply only the loads specified according to its size as specified in 210.23(A) through (E) and summarized in 210.24 and Table 210.24.

(A) Through (D) -- remains unchanged

(E) Dwelling Branch Circuits. Dwelling branch circuits shall be installed as described in 210.23(E)(1) through (3).

- (1) **Maximum Number (15-ampere).** The maximum number of outlets on a 15-ampere, 125 volt (nominal) luminaire circuit shall be twelve (12) and shall not contain general purpose receptacle outlets.

Exception No. 1: *Dedicated branch circuits feeding only IC rated recessed luminaires and/or low wattage energy efficient luminaires may use Article 220.14(D) for computing the maximum number of luminaire outlets.*

Exception No. 2: *In branch circuits serving smoke detectors the smoke detector outlets need not be counted with other luminaire outlets.*

Exception No. 3: *As an alternate, receptacles may be included at the discretion of the Building Official subject to approved circuited plans including maximum 5% voltage drop at 80% of overcurrent device rating.*

(2) Maximum Number (20-ampere). The maximum number of outlets on a 20 ampere, 125-volt (nominal) circuit used exclusively for receptacles, for luminaire outlets or for any combination of receptacles and luminaire outlets shall be twelve (12).

Exception No. 1: *Dedicated branch circuits feeding only IC rated recessed luminaires and/or low wattage energy efficient luminaires may use Article 220.14(D) for computing the maximum number of luminaire outlets.*

Exception No. 2: *In branch circuits serving smoke detectors the smoke detectors need not be counted with the other luminaire and/or receptacle outlets.*

(3) Individual Branch Circuits. The following fastened-in-place appliances are required to have a separate minimum 20-ampere circuit: dishwasher, trash compactor and microwave oven. The required laundry circuit may serve one (1) additional outlet in the laundry area.

Section 210.52(F)

Add a new exception No. 3 to Section 210.52(F), as follows:

Exception No. 3: *In structures, more than four (4) stories in height where the configuration of a laundry area is such that only an electrically heated stackable type washer/dryer unit utilizing 208 volt or 240 volt power can be accommodated, the receptacle may be considered as meeting the laundry circuit requirement.*

Section 210.70(A)(1)

Revise Item (1) in Section 210.70(A), as follows:

(1) Habitable Rooms. At least one wall switch-controlled lighting outlet shall be installed in every habitable room, kitchen, and bathroom. Unless prohibited by structural design, a wall switch shall be located within 1.8 m (6 ft) of the point of entry, and shall not be located behind an active door in the fully open position. Doors capable of being fixed in place are not to be considered active doors.

The remainder of this section remains unchanged.

Section 210.70(A)(2)(1)

Revise item (1) in Section 210.70(A)(2), as follows:

210.70 Lighting Outlets Required.

(A) Dwelling Units

(2) Additional Locations. Additional lighting outlets shall be installed in accordance with the following.

- (1) At least one wall switch-controlled lighting outlet shall be installed in hallways, stairways, attached garages, and detached garages with electric power. Hallways of 3.0 m (10 ft) or more in length shall have wall switches within 1.8 m (6 ft) of each opening or door unless prohibited by structural design.

Section 210.70(A)(2)(2)

Revise item (2) in Section 210.70(A)(2), as follows:

210.70 Lighting Outlets Required.

(A) Dwelling Units.

(2) Additional Locations. Additional lighting outlets shall be installed in accordance with the following:

For dwelling units, attached garages, and detached garages with electric power, at least one wall switch-controlled lighting outlet shall be installed to provide illumination on the exterior side of outdoor entrances or exits with grade level access. A vehicle door in a garage shall not be considered as an outdoor entrance or exit. At least one wall switch that controls an interior lighting outlet shall be located at each keyed exterior entry. This switch shall be located within 1.8 m (6 ft) of the latching jamb side, unless prohibited by structural design, and not behind an active door in the fully open position.

Section 210.71(B) (1)

Revise Section 210.71(B)(1), as follows:

210.71(B)(1) Receptacle Outlets in Fixed Walls. The minimum number of receptacle outlets shall be calculated in accordance with 210.52(A)(2) through (A)(3).

Section 220.84

Delete item (5) in Section 220.84(C), and add the new sub-section (D), as follows:

220.84 Multifamily Dwelling.

(D) Heating and Air Conditioning Load. The largest of the following six selections (load in kVA) shall be included:

- (1) 100 percent of the nameplate rating(s) of the air conditioning and cooling.

- (2) 100 percent of the nameplate rating(s) of the heat pump when the heat pump is used without any supplemental electric heating.
- (3) 100 percent of the nameplate ratings of electric thermal storage and other heating systems where the usual load is expected to be continuous at the full nameplate value. Systems qualifying under this selection shall not be calculated under any other selection in 220.84(D).
- (4) 100 percent of the nameplate rating(s) of the heat pump compressor and 65 percent of the supplemental electric heating for central electric space heating systems. If the heat pump compressor is prevented from operating at the same time as the supplementary heat, it does not need to be added to the supplementary heat for the total central space heating load.
- (5) 65 percent of the nameplate rating(s) of electric space heating if less than four separately controlled units.
- (6) 40 percent of the nameplate rating(s) of electric space heating if four or more separately controlled units.

Section 225.32

Revise Section 225.32 with Exception 4, as follows:

225.32 Location. The disconnecting means shall be installed as described in 230.70. For the purposes of this section, the requirements in 230.6 shall be utilized.

Exception No. 4: For accessory buildings to one and two-family dwellings the disconnecting means may be installed either inside or on the exterior of the accessory structure.

Section 230.11

Add a new Section 230.11, revise as follows:

230.11 Location of Customer Owned Service Conductors. All conductors shall traverse only the property to be served except through recorded power easements.

Section 230.70

Revise Section 230.70, in its entirety, as follows

230.70 General. Means shall be provided to disconnect all ungrounded service entrance conductors to a building or structure.

(A). Location. The service disconnecting means shall be installed in accordance with 230.70(A)(1), (2), (3), (4) and (5).

- (1) Exterior of the Building.** The service disconnecting means shall be installed in a readily accessible exterior location and within 3.7 m (12 ft.) of the building or structure. Where the distance is greater than 3.7 m (12 ft.) from the building or structure the service disconnecting means shall be considered as a separate structure.

Exception No1: A fire pump and its associated electrical equipment.

- (2) **Electrical Equipment Room.** The service disconnecting means may be installed within a dedicated electrical equipment room with a readily accessible direct access on the exterior of a building or structure. Such rooms shall be separated from all other rooms or spaces within the building by a minimum of one (1) hour fire resistive construction and shall have approved Fire Department access.

FPN: A recessed 3200 series Knox Box may serve as the approved Fire Department access in some jurisdictions.

- (3) **Bathrooms.** Service disconnecting means shall not be installed in bathrooms.
- (4) **Remote Control.** Where a remote control device(s), required by another code such as in a fire command center, is used to actuate the service disconnecting means, the service disconnecting means shall be located in accordance with 230.70(A)(1) or (2). The remote control device shall be supervised by a local signaling service that causes an audible signal and illumination of an amber visual signal at the Fire Command Center and at each auxiliary location required for the Life Safety System.
- (5) **Alternative Energy Systems.** Alternative energy sources shall have their disconnecting means clearly identified and if the disconnecting means is not located adjacent to the main service disconnect, then signage shall be provided showing the location of each disconnecting means. Alternative energy systems disconnect signs shall state "(PV),(UPS), etc. System Disconnect."

(B) Marking. Each service disconnecting means shall be marked with a sign(s). When located in a dedicated electrical room the exterior door(s) providing access to the disconnecting means located in a dedicated electrical room shall be permanently marked with a sign(s). Each sign shall be a minimum 0.093sq.m (1 sq. foot), colored yellow with 25.4mm (1 inch) high, 6.35 mm (¼ inch) stroke raised or engraved letters and/or numbers indicating the address or unit it serves and be identified as the "Electrical Service Disconnect(s)" and/or "Electrical Service Disconnect(s) Inside." Emergency Systems disconnects shall be permanently marked with sign(s), identified as "Emergency Electrical Disconnect(s)" and/or "Main Emergency Electrical Disconnect(s) Inside." When the service disconnecting means is located inside a dedicated electrical room and it is not the first service disconnect encountered or there are multiple service disconnects there shall be a directional 75mm (3inch) wide painted yellow stripe on the floor from the entry door(s) to each service disconnect. Other durable means of identification may be used with prior approval by The Authority Having Jurisdiction.

Exception: One and two family dwelling units and their associated accessory structures.

(C) Suitable for Use. Each service disconnecting means shall be suitable for the prevailing conditions. Service equipment installed in hazardous (classified) locations shall comply with the requirements of Articles 500 through 517.

Section 230.202

Add a new Subsection (C) to Section 230.202

230.202 Service-Entrance Conductors.

(C) Conductors Considered Outside the Building. Service-entrance conductors shall be installed in accordance with Section 230.6.

Section 230.205(A)

Revise Section 230.205(A), as follows:

230.205 Disconnecting Means.

(A) Location. The service disconnecting means shall be located in accordance with 230.70.

For either overhead or underground primary distribution systems on private property, under single management with a Life Safety System, Fire Command Center and 24 hour on-site qualified maintenance personnel, the service disconnect shall be permitted to be located in a location that is not readily accessible, if the disconnecting means can be operated by mechanical linkage from a readily accessible point, or electronically in accordance with 230.205(C), where applicable. The main electrical room is not required to be located on the exterior of the building or other structure.

Section 230.205(C)

Revise Section 230.205(C), as follows:

230.205 Disconnecting Means.

(C) Remote Control. For multi-building, industrial installations under single management, the service disconnecting means shall be permitted to be located at a separate building or structure. In such cases, the service disconnecting means shall be permitted to be electrically operated by a readily accessible device. The remote control device shall be supervised by a local signaling device that causes an audible signal and the illumination of an amber visual signal at the Fire Command Center and at each auxiliary location required for the Life Safety System.

Section 240.86

Revise Section 240.86 as follows:

240.86 Series Ratings. Where a circuit breaker is used on a circuit having an available fault current higher than the marked interrupting rating by being connected on the load side of an acceptable overcurrent device having a higher rating, the circuit breaker shall meet the requirements specified in (A) or (B), and (C). All of the information including manufacturers and part numbers of each component making up the series combination rating shall be provided on the submittal drawings for plans examination and permit. Only those manufacturers and part numbers shall be permitted for the installation.

Section 250.32(A)

Revise Section 250.32(A), as follows:

250.32(A) Grounding Electrode. For the purposes of this section all buildings or structures not joined by a continuous concrete foundation or footing and roof shall be considered as separate buildings or structures. Building(s) or structure(s) supplied by feeder(s) or branch circuit(s) shall have a

grounding electrode system installed in accordance with Part III of Article 250. The grounding electrode conductor(s) shall be connected in accordance with 250.32 (B) or (C). Where there is no existing grounding electrode, the grounding electrode(s) required in 250.50 shall be installed.

Section 250.50

Revise Section 250.50, as follows:

250.50 Grounding Electrode System. All grounding electrodes as described in 250.52(A)(1) through (A)(7) that are present at each building or structure served shall be bonded together to form the grounding electrode system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(7) shall be installed and used. The concrete-encased electrode described in Article 250.52(A)(3) shall be required for new buildings and structures that are supplied with electrical power and have concrete foundations or footings.

Remainder unchanged

Section 250.52(A)(5)

Replace all of Section 250.52(A)(5) with the following:

250.52 Grounding Electrode System.

(A) Electrodes Permitted for Grounding

(1 – 4 remain unchanged)

(5) Rod Electrodes. Rod electrodes shall not be less than 2.44 m (8 ft) in length and shall consist of stainless steel and copper or zinc coated steel and shall be at least 15.875 mm (5/8 in.) in diameter, unless listed.

Remainder of section unchanged

Section 250.52(A)(7)

Delete Item (7) of Section 250.52(A), revise as follows:

250.52 Grounding Electrode System.

Renumbering will continue with the following:

(7) Other Local Metal Underground Systems or Structures.

Section 250.53

Revise Section 250.53(A), as follows:

250.53 Grounding Electrode System Installation.

(A) **Rod Electrodes.** Rod electrodes shall meet the requirements of 250.53(A)(1) through (A)(3).

Below Permanent Moisture Level. If practicable, rod electrodes shall be embedded below permanent moisture level. Rod electrodes shall be free from nonconductive coatings such as paint or enamel.

(1) **Supplemental Electrode Required.** A single rod electrode shall be supplemented by an additional electrode of a type specified in 250.52(A)(2) through (A)(7). The supplemental electrode shall be permitted to be bonded to one of the following:

- (1) Rod electrode
- (2) Grounding electrode conductor
- (3) Grounded service-entrance conductor
- (4) Nonflexible grounded service raceway
- (5) Any grounded service enclosure

Exception: If a single rod grounding electrode has a resistance to earth of 25 ohms or less, the supplemental electrode shall not be required.

(2) **Supplemental Electrode.** If multiple rod electrodes are installed to meet the requirements of this section, they shall not be less than 1.8 m (6 ft) apart.

Informational Notes: The paralleling efficiency of rods is increased by spacing them twice the length of the longest rod.

Section 250.53(B)

Revise Section 250.53(B), as follows:

250.53 Grounding Electrode System Installation.

(B) **Electrode Spacing.** Where more than one of the electrodes of the type specified in 250.52(A)(5) are used, each electrode of one grounding system (including that used for strike termination devices) shall not be less than 1.83 m (6 ft) from any other electrode of another grounding system. Two or more grounding electrodes that are bonded together shall be considered a single grounding electrode system.

Section 250.53(D)(2)

Revise Item (2) in Section 250.53(D)(2), as follows:

(2) **Supplemental Electrode Required.** A metal underground water pipe shall be supplemented by an additional electrode of a type specified in 250.52(A)(2) through (A)(7). If the supplemental electrode is of the rod type, it shall comply with 250.53(A). The supplemental electrode shall be bonded to one of the following:

- (1) Grounding electrode conductor
- (2) Grounded service-entrance conductor
- (3) Nonflexible grounded service raceway
- (4) Any grounded service enclosure
- (5) As provided by 250.32(B)

Remainder unchanged

Section 250.53(E)

Revise Section 250.53(E), as follows:

250.53 Grounding Electrode System Installation.

- (E) Supplemental Electrode Bonding Connection Size.** Where the supplemental electrode is a rod electrode, that portion of the bonding jumper that is the sole connection to the supplemental grounding electrode shall not be required to be larger than 6 AWG copper wire or 4 AWG aluminum wire.

Section 250.53(G)

Revise Section 250.53(G), as follows:

250.53 Grounding Electrode System Installation.

- (G) Rod Electrodes.** The electrode shall be installed such that at least 2.44 m (8 ft) of length is in contact with the soil. It shall be driven to a depth of not less than 2.44 m (8 ft) except that, where rock bottom is encountered, the electrode shall be driven at an oblique angle not to exceed 45 degrees from the vertical or, where rock bottom is encountered at an angle up to 45 degrees, the electrode shall be permitted to be buried in a trench that is at least 750 mm (30 in.) deep. The upper end of the electrode shall be flush with or below ground level unless the aboveground end and the grounding electrode conductor attachment are protected against physical damage as specified in 250.10.

Section 250.53(H)

Delete Section 250.53(H), in its entirety, as follows:

250.53 Grounding Electrode System Installation.

Section 250.120(D)

Add a new Subsection (D) to Section 250.120, revise as follows:

250.120 Equipment Grounding Conductor Installation.

- (D) Equipment Grounding Conductor.** All raceways installed on roofs shall contain an equipment grounding conductor sized per Table 250.122 installed with the circuit conductors.

Exception No. 1: *Low voltage, communication and similar type systems unless required elsewhere in the Code.*

Exception No. 2: *As permitted by Article 250.86 for short sections of metal enclosures or raceways*

Section 314.24

Revise Section 314.24, as follows:

314.24 Depth of Boxes. Outlet and device boxes shall have an approved depth to allow equipment installed within them to be mounted properly and without likelihood of damage to conductors within the box. All boxes for outlets, devices, utilization equipment or junction boxes less than 200 mm (8 inches) in any dimension, shall have no more than two extension boxes or one extension box and one plaster ring.

Exception: *Listed unit(s) or assembly(s).*

Remainder unchanged

Section 336.10(9)

Revise Item 9 of Section 336.10, as follows:

336.10 Uses Permitted.

(9) In one- and two-family dwelling units, Type TC-ER cable containing both power and control conductors that is identified for pulling through structural members shall be permitted. Type TC-ER cable used as interior wiring shall be installed per the requirements of Part II of Article 334 and where installed as exterior wiring shall be installed per the requirements of Part II of Article 340.

Exception: *Where used to connect a generator and associated equipment having terminals rated 75°C (140°F) or higher, the cable shall not be limited in ampacity by 334.80 or 340.80.*

Informational Note No. 1: TC-ER cable that is suitable for pulling through structural members is marked "JP."

Informational Note No. 2: See 725.136 for limitations on Class 2 or 3 circuits contained within the same cable with conductors of electric light, power, or Class 1 circuits.

Section 352.10(F)

Revise Section 352.10(F), as follows:

352.10(F) Exposed. PVC conduit shall be permitted for exposed work. PVC conduit used exposed to direct sunlight or in areas subject to physical damage shall be Schedule 80.

Informational Note: PVC Conduit, Type Schedule 80, is identified for areas of physical damage.

Section 358.10 and 12

Delete 358.10 (B) and (C) add new items (3), (4) and (5) to Section 358.12, revise as follows:

Delete 358.10(B) and (C)

Revise as following:

358.12 Uses Not Permitted. EMT shall not be used under the following conditions:

- (1) Where subject to severe physical damage.
- (2) For the support of luminaires or other equipment except conduit bodies no larger than the largest trade size of the tubing.
- (3) Embedded within concrete or masonry in contact with the earth.
- (4) Underground installations.
- (5) Within earth fills.

Remainder Unchanged

Section 514.11(D)

Add a new Section (D) to 514.11, revise as follows:

- (D) Emergency Shutoff or Disconnects.** The emergency shutoff device(s) or electrical disconnect described in 514.11(A) shall simultaneously disconnect all conductors of the circuits leading to or through the dispensing equipment, including the grounded conductors, from their source of supply. Equipment grounding conductors shall not be disconnected.

The disconnect station sign shall be 0.093 sq. m (1 ft square), colored yellow and have black, 25.4 mm (1 inch) high, 6.35 mm (1/4 inch) stroke permanent lettering describing it as "Emergency Pump Shutoff".

Section 517.31(G)

Revise Section 517.31(G), add a new Exception No. 3, revise as follows

517.31(G)

Exception No. 3: *The requirements defined in this section are not required when the essential system was installed prior to the adopted code of record for NEC 2005. For new essential systems that are supplied from existing essential systems installed prior to the adopted code of record for NEC 2005, the new portion of the design shall be required to comply with this section. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing function of other overcurrent protective devices.*

Section 600.4(D)

Revise Section 600.4(D), revise as follows:

600.4(D) Visibility. The markings required in 600.4(A) and listing labels shall not be required to be visible after installation but shall be permanently applied in a location visible during servicing and at time of inspection.

Section 600.41(D)

Revise Section 600.41(D), revise as follows:

600.41(D) Protection. Field-installed skeleton tubing shall not be subject to physical damage. Where the tubing is readily accessible to other than qualified persons, field-installed skeleton tubing shall be provided with suitable guards or protected by other approved means. Installations less than 2.44 m (8 ft.) above finished grade or floor level shall be considered as readily accessible.

Section 620.62(1)

Add new Item exception to Section 620.62, revise as follows:

620.62

Current text is unchanged, add this exception:

Exception: *The requirements for selective coordination are not required where the elevator power system was installed prior to the adopted code of record for NEC 1996. For new elevator power systems that are supplied from an existing elevator power system installed prior to the adopted code of record for NEC 1996, the new portion of the elevator power system must comply with the requirements of this section. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing function of other overcurrent protective devices.*

Article 682

Delete Article 682, in its entirety

Section 700.1

Revise Section 700.1, revise as follows:

700.1 Scope. For the purposes of this section, items considered as meeting the requirements for high rise applications (i.e. buildings with an occupied floor located more than **17 m (55 ft)** above the lowest level of fire department vehicle access) to be placed on the emergency distribution system may include: Emergency illumination, exit signage, electric fire pumps, fire jockey or makeup pumps, fire alarm equipment, smoke control equipment, one elevator per bank of elevators, cooling and heating equipment for emergency electrical rooms and elevator machine rooms, FAA required obstruction lighting, battery chargers for emergency generating equipment, heating equipment for freeze protection of fire sprinkler systems, telecommunications equipment (i.e. for

911 applications) fire command center loads such as monitoring and display equipment and other equipment approved by the Authority Having Jurisdiction that will enhance the survivability of life safety systems.

This article applies to the electrical safety of the installation, operation, and maintenance of emergency systems consisting of circuits and equipment intended to supply, distribute, and control electricity for illumination, power, or both, to required facilities when the normal electrical supply or system is interrupted.

Remainder Unchanged

Section 700.10(D)

Revise Section 700.10(D), revise as follows:

700.10(D) Fire Protection. Emergency systems shall meet the additional requirements in (D)(1) through (D)(4) in the following occupancies:

- (1) Assembly occupancies for not less than 300 persons
- (2) Buildings above 55 feet (17m) in height
- (3) Health care occupancies where persons are not capable of self-preservation
- (4) Educational occupancies with more than 300 occupants

The remainder of 700.10 (D) is unchanged.

Section 700.12

Revise Section 700.12, revise as follows:

700.12 General Requirements. Modify the Fourth paragraph as noted below, remainder stays the same

Equipment for sources of power as described in 700.12(A) through (E) shall be installed either in spaces fully protected by approved automatic fire suppression system (sprinklers, carbon dioxide systems and so forth) or in spaces with a 2 hour fire rating where located within the following:

- (1) Assembly occupancies for more than 300 persons
- (2) Buildings above 55 feet in height with any of the following occupancy classes – assembly, educational, residential, detention and correctional, business, and mercantile
- (3) Health care occupancies where persons are not capable of self-preservation.
- (4) Educational occupancies with more than 300 occupants.

Remainder Unchanged

Section 700.12(B)(7)

Add a new Subsection 7 to Section 700.12(B), revise as follows:

700.12(B)(7) Location. The emergency generator shall not be located more than 55 feet (17 m) above the lowest level of fire department vehicle access. When the generator set is located inside a building it shall be located in a room dedicated to the Emergency Power Supply System. This room shall be separated from the interior of the building by a minimum of two-hour fire resistive construction or shall be in a room(s) fully protected by approved automatic fire suppression

systems. Unless otherwise required by Building Codes openings for generator cooling and exhaust shall not be required to be fire-resistive construction.

When a generator set is located within 1.5 m (5 ft) of a building it shall be separated from the building with a rated separation wall equal to the highest fire rating within the building that has no openings. It shall be installed within an approved enclosure and protected from physical damage. When a generator set is located more than 1.5 m (5 ft) from a building it shall be installed within an approved enclosure and protected from physical damage.

Section 700.32

Add new Exception No. 2 to Section 700.32, revise as follows:

700.32(1) Exception No. 2: The requirements for selective coordination are not required where the emergency system was installed prior to the adopted code of record for NEC 2005. For new emergency systems that are supplied from an existing emergency system installed prior to the adopted code of record for NEC 2005, the new portion of the emergency system must comply with the requirements of this section. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing function of other overcurrent protective devices.

Section 701.27

Add new Exception No. 2 to Section 701.27, revise as follows:

701.27 Exception No. 2): The requirements for selective coordination are not required where the emergency system was installed prior to the adopted code of record for NEC 2005. For new emergency systems that are supplied from an existing emergency system installed prior to the adopted code of record for NEC 2005, the new portion of the emergency system must comply with the requirements of this section. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing function of other overcurrent protective devices.

Section 708.54

Add new Exception No. 2 to Section 708.54, revise as follows:

708.54 Exception No. 2: *The requirements for selective coordination are not required where the emergency system was installed prior to the adopted code of record for NEC 2005. For new emergency systems that are supplied from an existing emergency system installed prior to the adopted code of record for NEC 2005, the new portion of the emergency system must comply with the requirements of this section. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing function of other overcurrent protective devices.*

Section 800.24

Add Subsection (A) to Section 800.24, revise as follows:

800.24 Mechanical Execution of Work.

- (A) **Low Voltage Cables.** Low voltage cabling installed in a concealed space of a Type I or Type II building shall be plenum rated, or installed in a metal raceway. Cables installed without raceways shall be installed per the manufacturer's installation instructions.