



**SOUTHERN NEVADA PROPOSED AMENDMENTS  
TO THE  
2023 NATIONAL ELECTRICAL CODE**

**National Electrical Code Committee**

Revised January 16, 2025

## **Preface**

This document was developed by the Southern Nevada Building Officials' (SNBO) *National Electrical Code* Committee and presents amendments to the 2023 *National Electrical Code* (NEC) as published by the *International Code Council* (ICC).

Participation in the 2023 *National Electrical Code* Committee was open to all interested parties. However, voting on amendments proposals was limited to one vote each for seven Southern Nevada municipalities (Clark County, Henderson, Las Vegas, North Las Vegas, Boulder City, Pahrump 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.

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #:   1  

COMMITTEE:   NEC 2023  

CODE SECTION:   Article 100  

PROPONENT:   Committee  

PROPOSAL: Add a new definition to Article 100

### REVISE AS FOLLOWS:

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

**JUSTIFICATION: F & J** Existing 2017 Amendment.

Conductors or cables left abandoned represent a safety hazard since they may inadvertently be re-energized. Due to the local high level of tenant turnover and the changes in technology, which result in entire system changeouts that leave abandoned systems behind, the accumulation of cables becomes more and more confusing when subsequent remodels are added to the existing system. Removed “or Cable” from the existing amendment because there is a definition for Abandoned Cable in base code 2023 NEC

### (Applicable Justifications)

- A. Amendments required to address local topographic conditions;
- B. Amendments required to address local geologic conditions;
- C. Amendments required to address local climatic conditions;
- D. Amendments required to address special uses and occupancies;
- E. Amendments required to correlate the provisions of a given national model code with other national model codes or prevailing State law.
- F. Amendments required to clarify the intent of the codes.
- G. Amendments required to address unique designs or systems not anticipated in the codes.
- H. Amendments required to provide for consistency in regional interpretation and application of the codes.
- I. Amendments required to address errata to the codes.
- J. Amendments adopted under previous codes where the base code provision has not substantially changed.

**COST IMPACT:** Labor cost to remove old systems or tag systems appropriately.

**COMMITTEE ACTION:**

Pahrump/ Nye	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion made by Joe Crapo-NV5**  
**2<sup>nd</sup> by Chris Hunter**

**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:**   2  

**COMMITTEE:**   NEC 2023  

**CODE SECTION:**   110.12  

**PROPONENT:**   Committee  

**PROPOSAL:** Add new Subsection (D) to Section 110.12

**REVISE AS FOLLOWS:**

**110.12 Mechanical Execution of Work.**

**(D) 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.

**JUSTIFICATION:** **F, G, and J** Existing 2017 Amendment.

This puts several requirements spread throughout the code into one location for clarification.

**COST IMPACT:** Labor cost to remove old systems or tag systems appropriately.

**COMMITTEE ACTION:**

Pahrump/ NYE	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion by Nick Sasso– Clark County**  
**Alejandro Garcia CLV 2nd**

**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:**   3  

**COMMITTEE:**   NEC 2023  

**CODE SECTION:**   110.12  

**PROPONENT:**   Committee  

**PROPOSAL:** Add new Subsections (E) to Section 110.12

**REVISE AS FOLLOWS:**

**110.12 Mechanical Execution of Work.**

**(E) Used Materials and Equipment.** The use of used materials that 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 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.

**JUSTIFICATION:** **F, G, and J.**

Existing 2017 Amendment.

This will allow the continued use of equipment for temporary power on construction sites.

**COST IMPACT:** This provision provides cost savings to owners and contractors for situations where new equipment would require extensive remodeling or excessive lead-time impacts of new equipment. Also, it provides for temporary power equipment to be reused.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Chris Hunter Motion**  
**Nick Sasso 2nd**



**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 4

**COMMITTEE:** NEC 2023

**CODE SECTION:** 110.12

**PROPOSER:** Howard Herndon

**PROPOSAL:** Add a new Subsection (F) to Section 110.12

**REVISE AS FOLLOWS:**

**110.12(F) Testing.** All equipment requiring the setting of adjustable values shall be set in accordance with the drawings and specifications 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 equipment's location, such as ground fault protection settings (GFPE), arc energy reduction, 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.

**JUSTIFICATION:** E, F, G, H, J Existing 2017 Amendment.

Application of the equipment must be kept consistent during maintenance. Reference to equipment settings is necessary for the proper operation of the electrical life safety equipment.

**COST IMPACT:** There is no additional cost outside of extra copies of documentation performed already for a code-compliant installation. Having these records on site reduces future costs for additions and remodels.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved  
**Motion:** Randy Hunter-HTS  
 2nd Alejandro Garcia – CLV

**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 5

**COMMITTEE:** NEC 2023

**CODE SECTION:** 110.30

**PROPONENT:** Howard Herndon

**PROPOSAL:** Add new sub-sections (1) through (3) to Section 110.30

**REVISE 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 this part apply to equipment on the supply side of the service point.

- (1) All permit submittals involving equipment and/or systems 1000 volts or above shall be reviewed and approved by a third-party agency or peer-reviewed by those with experience with these systems prior to submission for approval 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 with the design and equipment listings. The third party shall be approved by the AHJ.
- (3) Testing of said equipment shall be completed by an approved testing organization approved by the AHJ.-Testing shall be performed as per 235.356. Reports shall be submitted for review and acceptance by the AHJ prior to a permit final being issued.

**JUSTIFICATION:** D, E, F, G, J Existing 2017 Amendment.

Due to the high number of MV customers who own their own equipment within the valley, we need to have this coordination for these systems. Also, the lack of qualified jurisdictional inspectors for these systems creates this need.

**COST IMPACT:** The owner or contractor will incur an additional cost to hire a third-party organization, which will vary according to the scope of the project.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**Result: Approved**  
**Motion: Joe Crapo**  
**2nd Alejandro Garcia CLV**

210.8(B)(16)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 6

COMMITTEE: NEC 2023

CODE SECTION: 210.8(B)(16)

PROPOSER: Committee

PROPOSAL: Add a new Subsection (16) to Section 210.8(B) Other Than Dwelling Unit

REVISE AS FOLLOWS:

**210.8 Ground-Fault Circuit Interrupter Protection for Personnel.**

**(B) Other Than Dwelling Units.**

(16) Food and/or beverage preparation or serving areas regulated by the Health District.

**JUSTIFICATION:** D, J Existing 2017 Amendment.

This amendment correlates with the Southern Nevada Health District requirements. The requirement was originally for commercial bars, since many had stainless steel countertops with blenders and other appliances located on them and therefore present a shock hazard. It was determined that the same shock hazard exists at convenience stores, coffee shops, juice sales, etc., so all were included as “food and /or beverage serving areas”.

**COST IMPACT:** Cost of GFCI receptacle.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion by Nick Sasso -CC**  
**2nd Chris Hunter**

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**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

AMENDMENT #: 7

COMMITTEE: NEC 2023

CODE SECTION: 210.23(F)

PROPOSER: Committee

PROPOSAL: Add a new Subsection (F) to Section 210.23

**REVISE AS FOLLOWS:**

**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.

(A) Through (E) -- remains unchanged

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

(1) **Maximum Number (10 or 15-ampere).** The maximum number of outlets on a 10 or 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 a maximum 5% voltage drop at 80% of the 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.

**JUSTIFICATION: C, H**

Existing 2017 Amendment.

The NEC requires that circuits be designed to not exceed 80% of capacity. A 10-ampere circuit should not carry more than 8 amperes, and a 15-ampere circuit should not carry more than 12 amperes. Allowing 12 outlets on a circuit has proven to be a reliable limitation. Many of today's heaters and other equipment advertise 1500 watts; this would overload a 10 or 15-ampere circuit. Receptacles add unknown and uncontrolled load and jeopardize the lighting of the dwelling unit to unwanted failures. Modern homes have many additional loads that were not anticipated in the past and may cause significant additional loading. This requirement limits the loading risk on any particular circuit.

This geographical area has a high ambient temperature, putting additional stress on the ampacity allowed for conductors. Typically, in Southern Nevada, all branch circuits originate from the service panel located at the front corner of the garage. A 14 AWG copper with 12 A of load is limited to 50 ft to not exceed the 3% voltage drop, whereas 12 AWG with the same 12 A load can extend to 80 ft. Here in the valley, we lose 25' to 30' just getting out of the garage, and the circuit would exceed the voltage drop before reaching the receptacles. The addition of many electronic loads in concentrated areas of the home may defeat the diversification of load assumed in the NEC and damage the equipment due to the voltage drop. These requirements provide load diversity within the dwelling units; it has worked well for the last two decades and eliminated the need for detailed, circuited residential plans and the need for plan checkers to verify the balanced loads at the plan check stage.

No temperature derations for attics and walls are required for these wiring methods due to this limitation on the connected loads

Exception #1 was made for recessed luminaires because it was for permanent light fixtures with a maximum wattage rating. We added the low-wattage energy-efficient luminaires that we expect to be used more often in the future.

For Exception #2, smoke detectors add no appreciable load. The NEC defines smoke detectors as outlets, and they were being counted as part of the 12 outlets allowed.

The NEC requires individual circuits for fastened-in-place appliances that use more than 50% of the circuit [210.23(B)(2)]. This item assists the contractors in identifying the appliances listed above that generally require more than 10 amperes and need an individual circuit. Rather than determining at the final inspection when the appliances are installed, we require them to be installed as an individual circuit and verify it on the rough inspection.

**COST IMPACT:** Additional cost of larger conductors only for the receptacle circuits.

**COMMITTEE ACTION:**

Pahrump/ NYE	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion to accept: Alejandro Garcia - CLV**  
**2nd Nick Sasso - CC**

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 8

COMMITTEE: NEC 2023

CODE SECTION: 210.52(F)

PROPOSER: Committee

PROPOSAL: Add a new exception No. 3 to Section 210.52(F)

**REVISE 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 of washer/dryer combo unit utilizing 208-volt or 240-volt power can be accommodated, the single receptacle for the washer/dryer combo unit may be considered as meeting the laundry circuit requirement.*

**JUSTIFICATION:** **G, J** Existing 2017 Amendment. This was added to allow the elimination of the 120-volt laundry outlet in situations where it would never be needed. It saves unnecessary wiring and especially benefits load calculations on the building’s electrical service size. This item was brought to the committee by our local design professionals for unique designs of condominiums incorporating stackable washers & dryers in very confined spaces.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion to accept Chris Hunter**  
**2nd: Alejandro Garcia - CLV**





**RESULT: Approved**  
**Motion: Rocco Prock**  
**2nde David Wadsworth**

**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 10

**COMMITTEE:** NEC 2023

**CODE SECTION:** 210.70(A)(2)(1)

**PROPOSER:** Committee

**PROPOSAL:** Revise item (1) in Section 210.70(A)(2)

**REVISE 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 lighting outlet controlled by a listed wall-mounted ~~control device~~ general-use switch shall be installed in hallways, stairways, attached garages, detached garages, and accessory buildings with electric power. Hallways of 3.0 m (10 ft) or more in length shall have a wall-mounted general-use switch within 1.8 m (6 ft) of each opening or door unless prohibited by structural design.

**JUSTIFICATION: F, G, and J** Existing 2017 Amendment.

Switch locations were addressed to provide safe access without stumbling through dark rooms. This language provides additional clarity to assist enforcement and uniformity of switch installations. Adequate illumination provides additional life safety and prevents falling accidents in residential occupancies. The switching means is limited to a general-use switch (which includes a general-use snap switch) to provide reliable switching.

**COST IMPACT:** Minimal cost for one to three additional wall switches

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**

**Motion: Nick Sasso - Clark County  
2nd Alejandro Garcia – CLV**

210.70(A)(2)(2)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 11

COMMITTEE: NEC 2023

CODE SECTION: 210.70(A)(2)(2)

PROPOSER: Committee

PROPOSAL: Revise item (2) in Section 210.70(A)(2)

REVISE AS FOLLOWS:

### 210.70 Lighting Outlets Required.

#### (A) Dwelling Units.

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

- (2) For dwelling units, attached garages, ~~and~~ detached garages, and accessory buildings with electric power, at least one exterior lighting outlet controlled by a listed wall-mounted ~~control device~~ general-use switch 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-mounted general-use 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.

**JUSTIFICATION:** F, G, H and J Existing 2017 Amendment.

Switch locations were addressed to provide safe access without stumbling through dark rooms. This language provides additional clarity to assist enforcement and uniformity of switch installations. Adequate illumination provides additional life safety and prevents falling accidents in residential occupancies. The switching means is limited to a listed general-use switch (which includes a general-use snap switch) to provide reliable switching.

**COST IMPACT:** Minimal cost, only if an additional switch is needed.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**  
**Motion Rocco Prock**  
**2nd Nick Sasso**

AMENDMENT 12 WAS DELETED IN ITS ENTIRETY

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 13

COMMITTEE: NEC 2023

CODE SECTION: 220.84

PROPOSER: Committee

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

### REVISE AS FOLLOWS:

#### 220.84 Multifamily Dwelling.

##### (C) Calculated Loads.

~~(5) The larger of the air conditioning load or the fixed electric space heating load.~~

**(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.

**JUSTIFICATION:** C, J Existing 2017 Amendment.

The air conditioning load for the optional calculation was removed from a load calculation, which allows a demand factor and was put into a new section that requires calculations at 100%. This matches the load requirements for the normal calculation method. The climate conditions here require nearly constant use of air conditioning. In previous code cycles we never allowed an alternate load calculation on multi-family dwellings. In 2005, we accepted it as per the NEC, with the minor modification that the AC load be taken at 100% due to local conditions.

**COST IMPACT:** This may affect service size depending on the calculated load and equipment size options.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**

**Motion to Accept: Alejandro Garcia - CLV**

**2nd Chris Hunter**



## 225.31(B) & Exception No. 4

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### SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 14

COMMITTEE: NEC 2023

CODE SECTION: 225.31(B) and Exception No. 4

PROPOSER: Committee

PROPOSAL: Revise Section 225.31(B) and Exception No. 4

#### REVISE AS FOLLOWS:

**225.31(B) Location.** ~~The disconnecting means shall be installed either inside or outside of the building or structure served or where the conductors pass through the building or structure. The disconnecting means shall be at a readily accessible location nearest the point of entrance of the conductors as described in 230.70, as amended.~~ For the purposes of this section, the requirements in 230.6 shall apply.

*Exceptions No. 1-3 remain unchanged.*

~~Exception No. 4: For poles or similar structures used only for support of signs installed in accordance with Article 600, the disconnecting means shall be permitted to be located elsewhere on the premises.~~

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

#### **JUSTIFICATION:** D, G, J Existing 2017 Amendment.

Feeders to additional buildings must have their disconnecting means installed as if they were services. Especially for special-use major projects, we need the disconnecting means to be readily accessible. The fire Departments requested this for code correlation of access requirements for the building disconnecting means. Additionally, our unique signs are so large that when we have an emergency condition, we need to have the disconnect located on the sign.

**COST IMPACT:** Minimal as this is part of the building design basics.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**

**Motion: David Wadsworth**

**2nd: Alejandro Garcia - CLV**

**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 15

**COMMITTEE:** NEC 2023

**CODE SECTION:** 230.11

**PROPOSER:** Committee

**PROPOSAL:** Add a new Section 230.11

**ADD 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.

**JUSTIFICATION:** G, H, J Existing 2017 Amendment.

Due to our high current demand and often high voltage demands, we commonly see customer-owned services. We cannot allow them to cross property lines to install or repair those conductors. Due to local lot configurations and reclassification of property ownership, we need this requirement to correlate with other NEC requirements. This requirement also correlates with codes governing other public utility services (such as sewer) and zoning rules.

**COST IMPACT:** None if installed in established utility easements.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved

**Motion:** Joe Crapo – NV5

**2<sup>nd</sup>:** Nick Sasso - CC

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 16

COMMITTEE: NEC 2023

CODE SECTION: 230.70

PROPOSER: Committee

PROPOSAL: Revise Section 230.70 in its entirety

### REVISE AS FOLLOWS:

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

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

- (1) **Exterior of the Building.** The service disconnecting means shall be installed in a readily accessible exterior location 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 a separate structure.

*Exception: This requirement shall not apply to 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 of fire-resistive construction and shall have approved Fire Department access.

Informational Note: In some jurisdictions, a recessed 3200 series Knox Box may be the approved Fire Department access point.

- (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.

Informational Note No. 1. The disconnect for alternative energy systems is addressed in Chapters 6 and 7.

**(B) Marking.**

1. Each service disconnecting means shall be marked with a sign(s).
2. 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 of 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 System disconnects shall be permanently marked with a 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 (3 in.) wide painted yellow stripe on the floor from the entry door(s) to each service disconnect.
3. Other durable means of identification may be used with prior approval by the AHJ.

**(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 hazardous location requirements.

**JUSTIFICATION: D, F, G, J** Existing 2017 Amendment.

Service conductors have no overcurrent protection ahead of the service. Any fault of the conductor will continue to arc and burn. It is necessary to keep the service conductors outside the building or in a rated room, separating a fire from the rest of the building. This language provides additional safety for first responders when they need to access a disconnecting means during a fire or other emergency. This language was developed with the assistance of representatives from the Fire Departments in the Valley.

Code requires marking or labeling, but the weather conditions here in Southern Nevada require special attention to durability. This correlates with the requirements for service disconnect locations and allows first responders to easily and quickly identify and locate the disconnecting means.

The Fire Department will normally report directly to the fire command center and control the power from that location. In the past, we have found that the shunt trip failed to operate. Due to the importance of this system working properly, we added supervision to the circuit to ensure that any failures would be found and repaired before an emergency occurred. This language correlates with International Building and Fire Codes.

**COST IMPACT:** The cost of labels suitable for our environment. Room location is just a design consideration.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Mesquite: Y**  
**Motion: Randy Hunter**  
**2<sup>nd</sup>: Dave Wadsworth**

AMENDMENT 17 WAS DELETED IN ITS ENTIRETY

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 18

COMMITTEE: NEC 2023

CODE SECTION: 235.405(A)

PROPOSER: Committee

PROPOSAL: Revise Section 235.405(A)

### REVISE AS FOLLOWS:

#### **235.405 Disconnecting Means.**

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

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 235.405(C), where applicable. The main electrical room is not required to be located on the exterior of the building or other structure.

**JUSTIFICATION:** D, F, J Existing 2017 Amendment.

This was added to allow major projects to install their service equipment in rooms that do not open to the outside or are not at grade level due to structural problems. This language is necessary due to the types of construction prevalent in Southern Nevada.

**COST IMPACT:** Savings of the cost of submitting requests for alternate methods or requiring alterations of the construction plans.

**COMMITTEE ACTION:**



Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**

**MOTION: Nick Sasso - CC**

**2<sup>ND</sup>: Alejandro Garcia – CLV**

**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 19

**COMMITTEE:** NEC 2023

**CODE SECTION:** 235.405(C)

**PROPOSER:** Committee

**PROPOSAL:** Revise Section 235.405(C)

**REVISE AS FOLLOWS:**

**235.405 Disconnecting Means.**

**(C) Remote Control.** For multibuilding, 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, remote-control 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.

**JUSTIFICATION:** E & J Existing 2017 Amendment.

The fire department will normally report directly to the fire command center and control the power from that location. In the past, we have found that the shunt trip failed to operate. Due to the importance of this system working properly, we added supervision to the circuit to ensure that any failures would be found and repaired before an emergency occurred. This language correlates with Building and Fire Codes.

**COST IMPACT:** This adds an alarm circuit to the remote control required in the Fire Command Center by the IBC.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**

**MOTION: Joe Crapo – NV5**

**2<sup>ND</sup>: Alejandro Garcia - CLV**

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 20

COMMITTEE: NEC 2023

CODE SECTION: 240.86

PROPOSER: Committee

PROPOSAL: Revise Section 240.86

### REVISE 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 approved overcurrent protective device having a higher rating, the circuit breaker shall meet the requirements specified in 240.86(A) or (B), and (C). All the information, including manufacturers and part numbers of each component making up the series combination rating, shall be provided on the submittal drawings for plan examination and permitting. Only those manufacturers and part numbers shall be permitted for the installation.

**JUSTIFICATION:** F, G, H, J Existing 2017 Amendment.

Required to provide for consistency in the regional interpretation and application of the codes. This required information is necessary to be listed on the plans for the inspector to be able to verify compliance that all components are part of the listed system. This was a multi-jurisdictional request from both the plan examiners and field inspectors to ensure that components of series-rated systems were installed per the approved design.

**COST IMPACT:** Minimal, just additional copies.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**MOTION: Nick Sasso - CC**  
**2<sup>ND</sup>: Joe Crapo – NV5**

250.32(A)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 21

COMMITTEE: NEC 2023

CODE SECTION: 250.32(A)

PROPONENT: Committee

PROPOSAL: Revise Section 250.32(A)

### REVISE AS FOLLOWS:

**250.32(A) Grounding Electrode System and Grounding Electrode Conductor.** 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. A building(s) or structure(s) supplied by a feeder(s) or branch circuit(s) shall have a grounding electrode system and grounding electrode conductor installed in accordance with Part III of Article 250. Where there is no existing grounding electrode, the grounding electrode(s) required in 250.50 shall be installed.

*The exception remains and is unchanged.*

**JUSTIFICATION:** F, G, J Existing 2017 Amendment.

Required for code correlation. This was for clarification of what is considered as a separate building and for correlation with the building code. The building code considers a continuous roof structure as a single building, whereas the electrical system requires a continuous equipotential grounding system (such as a concrete foundation or footing) to maintain electrical grounding continuity.

**COST IMPACT:** Possibly the cost of an electrode if it had been interpreted as not a separate building.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**

**MOTION: Joe Crapo – NV5**

**2<sup>ND</sup>: David Wadsworth**





**RESULT: Approved**  
**MOTION: Chris Hunter**  
**2<sup>ND</sup>: Nick Sasso - CC**

250.52(A)(5)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 23

COMMITTEE: NEC 2023

CODE SECTION: 250.52(A)(5)

PROPOSER: Committee

PROPOSAL: Revise Section 250.52(A)(5) with the following.

### REVISE AS FOLLOWS:

#### 250.52 Grounding Electrode System.

##### (5) Rod and Pipe Electrodes.

Rod and pipe electrodes shall not be less than 2.44 m (8 ft) in length and shall consist of the following materials:

~~(1) Grounding electrodes of pipe or conduit shall not be smaller than metric designator 21 (trade size 3/4) and, where of steel, shall have the outer surface galvanized or otherwise metal coated for corrosion protection.~~

(2) Rod-type grounding electrodes of stainless steel and copper or zinc-coated steel, and shall be at least 15.87 mm (5/8 in.) in diameter, unless listed.

**JUSTIFICATION:** A, B, C, G, J Existing 2017 Amendment.

This section was rewritten, eliminating references to pipe (galvanized conduit) electrodes, which will not withstand the soil conditions here. Pipe and plate electrodes were also deleted in 250.53 and 250.56.

**COST IMPACT:** The difference in price between a rod and a pipe.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion to accept Chris Hunter**  
**2nd by Nick Sasso - CC**



**RESULT: Approved**  
**Motion: Randy Hunter**  
**2nd Byron Bowman - CCSD**

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 25

COMMITTEE: NEC 2023

CODE SECTION: 250.53

PROPOSER: Committee

PROPOSAL: Revise Section 250.53(A), in its entirety as noted below.

### REVISE AS FOLLOWS:

#### 250.53 Grounding Electrode System Installation.

**(A) Rod, Pipe, and Plate Electrodes.** Rod, pipe, and plate electrodes shall be free from nonconductive coatings such as paint or enamel. Rod, pipe, and plate electrodes shall meet the requirements of 250.53(A)(1) through (A)(4).

**(1) Below Permanent Moisture Level.** If practicable, rod, pipe, and plate electrodes shall be embedded below permanent moisture level.

**(2) Supplemental Electrode Required.** A single rod, pipe, or plate electrode shall be supplemented by an additional electrode of a type specified in 250.52(A)(2) through (A)(8)(7). The supplemental electrode shall be permitted to be bonded to one of the following:

- (1) Rod, pipe, or plate 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, pipe, or plate grounding electrode has a resistance to earth of 25 ohms or less, the supplemental electrode shall not be required.*

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

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

**(4) Rod and Pipe 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.

**JUSTIFICATION: A, B, C, G, H, J** Existing 2017 Amendment.

Testing has proven that the deleted items do not perform well in our local soil conditions.

**COST IMPACT:** None.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion: Joe Crapo – NV5**  
**2nd Alexander Mireles - COH**

250.53(B)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 26

COMMITTEE: NEC 2023

CODE SECTION: 250.53(B)

PROPOSER: Committee

PROPOSAL: Revise Section 250.53(B)

### REVISE AS FOLLOWS:

#### Grounding Electrode System Installation.

**(B) Electrode Spacing.** If more than one of the electrodes of the type specified in 250.52(A)(5) or ~~(A)(7)~~ 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.

**JUSTIFICATION:** E, J Existing 2017 Amendment.

This is to correlate with other sections removing items that don't work in our soils. The last sentence clarifies that two or more electrodes bonded together are a system.

**COST IMPACT:** None.

### COMMITTEE ACTION:

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved

**Motion:** Chris Hunter

**2nd Alexander Mireles - COH**





**RESULT: Approved**  
**Motion: David Wadsworth**  
**2nd : Chris Hunter**

250.53(E)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 28

COMMITTEE: NEC 2023

CODE SECTION: 250.53(E)

PROPOSER: Committee

PROPOSAL: Revise Section 250.53(E)

### REVISE AS FOLLOWS:

#### 250.53 Grounding Electrode System Installation.

**(E)Supplemental Grounding Electrode Bonding Jumper Size.** If the supplemental electrode is a rod, pipe, or plate 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 or copper-clad aluminum wire.

**JUSTIFICATION:** E, J Existing 2017 Amendment.

This is to correlate with other sections removing items that don't work in our soils.

**COST IMPACT:** None.

### COMMITTEE ACTION:

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved  
**Motion:** Nick Sasso – CC  
2nd Joe Crapo – NV5

AMENDMENT 29 WAS DELETED IN ITS ENTIRETY

AMENDMENT 30 WAS DELETED IN ITS ENTIRETY

250.120(D)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 31

COMMITTEE: NEC 2023

CODE SECTION: Section 250.120(D)

PROPOSER: Committee

PROPOSAL: Add a new Subsection (D) to Section 250.120

### ADD AS FOLLOWS:

#### **250.120 Equipment Grounding Conductor Installation.**

**(D) Exterior Raceways.** All exterior raceways that use compression-type fittings shall contain a wire-type equipment grounding conductor sized per Table 250.122 installed with the circuit conductors.

Exception No. 1: Low voltage, communication and similar type systems shall be permitted to omit the equipment grounding conductor unless required elsewhere in the code.

Exception No. 2: The equipment grounding conductor shall be permitted to be omitted as described in 250.86 Exception No. 2 for short sections of metal enclosures or raceways.

#### **JUSTIFICATION: C H J Existing 2017 Amendment.**

Due to Southern Nevada's climatic conditions, many conduits are installed on rooftops and other exterior surfaces. These raceways are commonly damaged and disconnected at the connectors/fittings. A wire-type equipment grounding conductor ensures the long-term safety of these electrical systems.

**COST IMPACT:** Additional cost of an equipment grounding conductor.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**  
**Motion: Joe Crapo**  
**2nd – Alexander Mireles - COH**

314.24

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 32

COMMITTEE: NEC 2023

CODE SECTION: 314.24

PROPOSER: Committee

PROPOSAL: Revise Section 314.24

### REVISE AS FOLLOWS:

**314.24 Dimensions of Boxes.** Outlet and device boxes shall have approved dimensions 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) shall be permitted to have more than two extension boxes or one extension box and one plaster ring.

***Remainder unchanged***

**JUSTIFICATION:** F, H J Existing 2017 Amendment.

The local propensity for frequent remodels and the additions of walls and other structural components made it common for the addition of extension after extension on boxes. Stacking of outlet boxes makes it unsafe to reach into the depth of the boxes to make splices or perform other necessary work and resulted in damaged wire by not providing adequate access to the point of conduit entry into the box. The wording was adjusted in this code cycle for clarification of code intent.

**COST IMPACT:** Minimal, boxes need to be located properly.

**COMMITTEE ACTION:**



Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y		Y	Y	Y

**RESULT: Approved**  
**Motion - Stephen Paez - CC**  
**2nd – Chris Hunter**

AMENDMENT 33 WAS DELETED IN ITS ENTIRETY

352.10(G)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 34

COMMITTEE: NEC 2023

CODE SECTION: 352.10(G)

PROPOSER: Committee

PROPOSAL: Revise Section 352.10(G)

**REVISE AS FOLLOWS:**

**352.10(G) Exposed.** Where exposed, Schedule 80 PVC conduit shall be required. ~~PVC conduit shall be permitted for exposed work.~~

**JUSTIFICATION:** C, J Existing 2017 Amendment.

Due to the high number of hours of UV exposure, as well as the intensity of the UV levels in Southern Nevada, rigid non-metallic conduit must be suitable for our environmental conditions.

**COST IMPACT:** Minor difference between Sch. 40 and Sch. 80.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved

**Motion:** Joe Crapo

2nd – Stephen Paez- CC

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 35

COMMITTEE: NEC 2023

CODE SECTION: Sections 358.10 and 358.12

PROPONENT: Committee

**PROPOSAL: Delete 358.10 (B) and (C) all others to remain the same  
358.12 add new items (3), (4) and (5)**

### REVISE AS FOLLOWS:

**Delete 358.10(B) and (C)**  
(Remainder of 358.10 is unchanged)

### Add the 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.

**JUSTIFICATION:** E, J Existing 2017 Amendment.

Based on local installation history and soil conditions, electrical metallic tubing in these locations will deteriorate rapidly.

**COST IMPACT:** Little or no impact.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**  
**Motion: Ryan Kelly - NLV**  
**2nd Joe Crapo – NV5**

514.11(D)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #:   36  

COMMITTEE:   NEC 2023  

CODE SECTION:   514.11(D)  

PROPOSER:   Randy Hunter  

PROPOSAL: Add a new Section (D) to 514.11

**REVISE AS FOLLOWS:**

**(D) Emergency Shutoff or Disconnect(s) Marking.**

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".

**JUSTIFICATION:** F, G, H, D, and J Existing 2017 Amendment.

The new base code language still doesn't provide any guidance for the signage, which leads to non-conformance and confusion, which will not aid the orderly disconnection of these items in the event of an emergency. This signage also helps with Fire Department coordination.

**COST IMPACT:** Minor, just clarification of signage and grounding disconnects.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved

**Motion:** Howard Herndon - EPC

**Second:** Nick Sasso - CC

517.31(G)

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**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 37

**COMMITTEE:** NEC 2023

**CODE SECTION:** 517.31(G)

**PROPONENT:** Committee

**PROPOSAL:** 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.

**JUSTIFICATION:** G, E, F, J Existing 2017 Amendment.

This will limit the cost to ownership for emergency distribution systems that are “grandfathered” from some coordination study requirements. Prior to the 2005 NEC, selective coordination was not required. Additions and remodels done to current codes would require major electrical equipment upgrades or changeouts to comply with current codes.

**COST IMPACT:** Cost savings to owners of properties built prior to the selective coordination requirements

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved

**Motion: Joe Crapo – NV5**  
**Second: Nick Sasso - CC**



AMENDMENT 38 WAS DELETED IN ITS ENTIRETY

600.41(D)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 39

COMMITTEE: NEC 2023

CODE SECTION: 600.41(D)

PROPOSER: Committee

PROPOSAL: 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.

**JUSTIFICATION: F, G, H, J** Existing 2017 Amendment.

Southern Nevada has such a large degree of lighting in use, even in locations accessible to the public, that protection was needed for their safety. The NEC includes our original amendment but does not give a specific height. This amendment provides clear direction to local installers.

**COST IMPACT:** Install a barrier, usually made of a clear plastic shield

### COMMITTEE ACTION:

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**

**Motion: Alejandro Garcia - CLV**

**Second: Nick Sasso - CC**

## 620.62 Exception No. 2

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### SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 40

COMMITTEE: NEC 2023

CODE SECTION: 620.62 Exception No. 2

PROPOSER: Committee

PROPOSAL: Add new Item exception to Section 620.62

#### REVISE AS FOLLOWS:

##### **620.62**

The current text is unchanged; add a second exception:

##### *Exception No. 1:*

*Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.*

*Exception No. 2: 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.*

**JUSTIFICATION:** E, F, G, J Existing 2017 Amendment.

This will limit the cost to ownership for emergency distribution systems that are “grandfathered” from some coordination study requirements. Prior to the 1996 NEC, selective coordination was not required. Additions and remodels done to current codes would require major electrical equipment upgrades or changeouts to comply with current codes.

**COST IMPACT:** Cost savings to owners of properties built prior to the selective coordination requirements

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**

**Motion: Joe Crapo – NV5**

**Second: Alejandro Garcia – CLV**

**AMENDMENT 41 WAS DELETED IN ITS ENTIRETY**

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
N/A Y	N/A Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y

**RESULT: Approved Approved**

**Revised Motion to Delete Amendment: Nick Sasso  
Second: Chris Hunter**

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 42

COMMITTEE: NEC 2023

CODE SECTION: Section 700.1

PROPOSER: Committee

PROPOSAL: Revise Section 700.1

### REVISE AS FOLLOWS:

**700.1 Scope.** 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.

For the purposes of this section, items considered as meeting the requirements for high-rise applications (high rise as defined in the AHJ's building code) 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 and other emergency communications) fire command center loads such as monitoring and display equipment and other equipment approved by the AHJ that will enhance the survivability of life safety systems.

(Remainder Unchanged)

**JUSTIFICATION:** **D, G, F, H, J** Existing 2017 Amendment.

Southern Nevada has many high-rise or high-occupancy buildings designed with very complex and unique emergency electrical systems. Emergency electrical systems are typically sized to handle the total load and need to be allowed to share the same raceways. We needed to be able to classify them as emergency systems to allow combined wiring methods.

**COST IMPACT:** Savings of not having multiple systems

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**





**RESULT: Approved**  
**Motion: Tom Anderson - TJK**  
**Second: Nick Sasso - CC**

700.12(B)

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**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 44

**COMMITTEE:** NEC 2023

**CODE SECTION:** 700.12(B)

**PROPOSER:** Committee

**PROPOSAL:** Revise Section 700.12(B)

**REVISE AS FOLLOWS:**

**700.12(B) Equipment Design and Location.** Equipment shall be designed and located so as to minimize the hazards that might cause complete failure due to flooding, fires, icing, and vandalism.

Equipment for sources of power as described in 700.12(C) through (G) shall be installed either in spaces fully protected by approved automatic fire suppression protection systems (such as sprinklers and carbon dioxide systems) or in spaces with a 2-hour fire rating where located within the following:

- (1) Assembly occupancies for more than 300 ~~4000~~ persons
- (2) ~~Buildings above 23 m (75 ft) in height~~ Buildings defined as high-rise per the AHJ's building code with any of the following occupancy classes – assembly, educational, residential, detention and correctional, business, and mercantile
- (3) Educational occupancies with more than 300 occupants.
- (4) Health care occupancies where persons are not capable of self-preservation.

(Remainder Unchanged)

**JUSTIFICATION:** D, F, E, G, H, J Existing 2017 Amendment.

This defines the high-rise height per the AHJ's building code or over 300-person occupancy as the triggers to qualify for the need for emergency systems. Both requirements correlate with the Southern Nevada amendments to the IBC, and this correlates with the ability of emergency response to safely evacuate the building. The emergency systems are required to be in a dedicated room. Both depend on the IBC committee to maintain these requirements. Revised to reflect changes in NEC formatting.

**COST IMPACT:** Generator requirements in smaller buildings when matching local IBC amendments.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**

**Motion: Joe Crapo – NV5**

**Second: Rogelio Esparza - RCE**

700.12(D)(5)

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**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 45

**COMMITTEE:** NEC 2023

**CODE SECTION:** Section 700.12(D)(5)

**PROPOSER:** Committee

**PROPOSAL:** Add a new Subsection 5 to Section 700.12(D)

**REVISE AS FOLLOWS:**

**700.12(D)(5) Location.** Where 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 that has no openings and is equal to the highest fire rating within the building. It shall be installed within an approved enclosure and protected from physical damage. Where 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.

**JUSTIFICATION:** **D, E, F, G, J** Existing 2017 Amendment.

This amendment is needed to clarify the separation requirements of generator installations from adjacent structures; this amendment was previously adopted during the 2017 NEC code cycle. The 2023 NEC code has not sufficiently addressed this issue at the national level.

**COST IMPACT:** Minor, as this is done during the design stage, perhaps rating the wall or an enclosure fence.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved  
**Motion:** Joe Crapo – NV5  
**2nd:** Chris Hunter - HTS

700.32(C)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 46

COMMITTEE: NEC 2023

CODE SECTION: Section 700.32(C)

PROPOSER: Committee

PROPOSAL: Add new Exception No. 2 to Section 700.32(C)

### REVISE AS FOLLOWS:

#### 700.32(C) Modifications

*Exception No. 1:*

*Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.*

*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.*

**JUSTIFICATION:** E, F, G, J Existing 2017 amendment.

This will limit the cost to ownership for emergency distribution systems that are “grandfathered” from some coordination study requirements. Properties built prior to the 2005 NEC were not required to have selective coordination. Additions and remodels done to current codes would require major electrical equipment upgrades or changeouts to comply with current codes.

**COST IMPACT:** Cost savings to owners of properties built prior to the selective coordination requirements

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**RESULT: Approved**  
**Motion: Joe Crapo – NV5**  
**2nd: Rogelio Esparza - RED**

701.32(C)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 47

COMMITTEE: NEC 2023

CODE SECTION: 701.32(C)

PROPOSER: Committee

PROPOSAL: Add new Exception No. 2 to Section 701.32(C)

### REVISE AS FOLLOWS:

#### 701.32(C) Modifications

*Exception No. 1:*

*Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.*

*Exception No. 2: The requirements for selective coordination are not required where the legally required standby system was installed prior to the adopted code of record for NEC 2005. For new legally required standby systems that are supplied from an existing legally required standby system installed prior to the adopted code of record for NEC 2005, the new portion of the legally required standby 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.*

**JUSTIFICATION:** E, F, G, J Existing 2017 amendment.

This will limit the cost to ownership for emergency distribution systems that are “grandfathered” from some coordination study requirements. Properties built prior to the 2005 NEC were not required to have selective coordination. Additions and remodels done to current codes would require major electrical equipment upgrades or changeouts to comply with current codes.

**COST IMPACT:** Cost savings to owners of properties built prior to the selective coordination requirements

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion: Chris Hunter**  
**2nd Jesus Cossio - Focus**



708.54(C)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL

AMENDMENT #: 48

COMMITTEE: NEC 2023

CODE SECTION: 708.54(C)

PROPOSER: Committee

PROPOSAL: Add new Exception No. 2 to Section 708.54(C)

### REVISE AS FOLLOWS:

#### **708.54(C) Modifications**

*Exception No. 1:*

*Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.*

*Exception No. 2: The requirements for selective coordination are not required where the COPS system was installed prior to the adopted code of record for NEC 2005. For new COPS systems that are supplied from an existing COPS system installed prior to the adopted code of record for NEC 2005, the new portion of the COPS 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.*

**JUSTIFICATION:** E, F, G, J Existing 2017 amendment.

This will limit the cost to ownership for emergency distribution systems that are “grandfathered” from some coordination study requirements. Properties built prior to the 2005 NEC were not required to have selective coordination. Additions and remodels done to current codes would require major electrical equipment upgrades or changeouts to comply with current codes.

**COST IMPACT:** Cost savings to owners of properties built prior to the selective coordination requirements

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion: Joe Crapo – NV5**  
**2nd: Rogelio Esparza -Red**

800.24(C)

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**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

**AMENDMENT #:** 49

**COMMITTEE:** NEC 2023

**CODE SECTION:** Section 800.24(C)

**PROPOSER:** Committee

**PROPOSAL:** Add Subsection (C) to Section 800.24

**REVISE AS FOLLOWS:**

**800.24 Mechanical Execution of Work.**

**(C) 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.

**JUSTIFICATION:** **D, G, H** Existing 2017 Amendment.

As noted in 90.3 (see figure 90.3), Chapter 8 is a stand-alone document. Therefore, we must restate the requirements we used in chapters 1-7 related to any communication cabling.

**COST IMPACT:** Minor, either properly rated cables will be used or conduit systems.

**COMMITTEE ACTION:**

Pahrump	Mesquite	Boulder City	Clark County	Henderson	Las Vegas	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:** Approved  
**Motion:** Stephen Paez - CC  
2nd Joe Crapo – NV5

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC

AMENDMENT NO.: 50

COMMITTEE: 2023 NEC

CODE SECTION: 314.5

PROPOSER: Clark County

PROPOSAL: Revise section 314.5 for screws.

**REVISE AS FOLLOWS:**

**314.5 Screws or Other Fasteners.**

Screws or other fasteners installed in the field that enter wiring spaces shall be as provided by or specified by the manufacturer or shall comply with the following as applicable:

- (1) Screws shall be machine type with blunt ends.
- (2) Other fasteners shall have blunt ends.
- ~~(3) Screws attaching a cover shall extend no more than 10 mm (3/8 in.).~~
- ~~(4) Screws or other fasteners, other than in (3), penetrating a cover shall extend no more than 8 mm (5/16 in.).~~
- ~~(5) Screws or other fasteners penetrating a wall of a box exceeding 1650 cm<sup>3</sup> (100 in.<sup>3</sup>) shall extend no more than 6 mm (1/4 in.), or more than 11 mm (7/16 in.) if located within 10 mm (3/8 in.) of an adjacent box wall.~~
- ~~(6) Screws or other fasteners penetrating the wall of a box not exceeding 1650 cm<sup>3</sup> (100 in.<sup>3</sup>) and not covered in 314.23(B)(1) shall be made flush with the box interior.~~
- (7) Screws or other fasteners penetrating the wall of a conduit body shall be made flush with the conduit body interior.

*Exception to (3) through (6): A screw shall be permitted to be longer if the end of the screw is protected with an approved means.*

**JUSTIFICATION:**

A primary purpose of the NEC is to serve as an enforcement tool for the inspector. These additional requirements will lead to inconsistencies in enforcement within and between jurisdictions, with no substantiation of failures that would require this level of detail.

**SNBO CRITERIA: Check all applicable SNBO Criteria that apply to the amendment proposal:**

A		B		C		D		E		F		G		H	x	I		J	
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**COST IMPACT:** None.

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**APPROVED**

**Motion: Stephen - CC**

**2nd: David M&M**

**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 FINAL**

AMENDMENT NO.: 51

COMMITTEE: 2023 NEC

CODE SECTION: 314.27(C)(2)

PROPOSER: Clark County

PROPOSAL: Revise section 314.27(C)(2)

**REVISE AS FOLLOWS:**

(C) Boxes at Ceiling-Suspended (Paddle) Fan Outlets.

- (1) Listed and installed so as to allow direct access through the box to structural framing capable of supporting a ceiling-suspended (paddle) fan without removing the box

**JUSTIFICATION:**

With the current language, fan hardware and a standard light box can be “rigged” and modified to allow for ceiling fan support, but the language in (2) does not instruct how. Every homeowner deserves to have a listed fan box for a ceiling fan.

**SNBO CRITERIA: Check all applicable SNBO Criteria that apply to the amendment proposal:**

A		B		C		D		E		F	X	G		H		I		J	
---	--	---	--	---	--	---	--	---	--	---	---	---	--	---	--	---	--	---	--

**COST IMPACT:** None.

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT:**  
**Approved**  
**Motion: Chris H**  
**2nd: Benny- NLV**

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC

AMENDMENT NO.:     52    

COMMITTEE:     2023 NEC    

CODE SECTION:     422.30    

PROPONENT:     Clark County    

**PROPOSAL:** Revise 422.30 to address signage for disconnects.

**REVISE AS FOLLOWS:**

422.30 General.

A means shall be provided to simultaneously disconnect each appliance from all ungrounded conductors in accordance with the following sections of Part III. If an appliance is supplied by more than one branch circuit or feeder, these disconnecting means shall be grouped and identified as being the multiple disconnecting means for the appliance. Each disconnecting means shall simultaneously disconnect all ungrounded conductors that it controls. Where multiple disconnecting means are provided, a permanent warning sign shall be provided on or adjacent to each disconnecting means indicating that multiple sources must be shut off to remove all power to the equipment. The sign at each disconnect shall identify the other specific circuits.

**JUSTIFICATION:**

This requires notification that multiple circuits need to be disconnected to remove all hazardous energy from an appliance with multiple feeds. This language will provide consistency within and between the jurisdictions and clarify the intent of the requirement.

**SNBO CRITERIA:** Check all applicable SNBO Criteria that apply to the amendment proposal:

A		B		C		D		E	x	F	x	G		H	x	I		J	
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**COST IMPACT:** Minimal (Label).

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: Approved**  
**Motion: Joe Crapo - NV5**  
**2nd: Chris Hunter**



## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC

AMENDMENT NO.: 53

COMMITTEE: NEC

CODE SECTION: 705.12(A)(4)

PROPOSER: Clark County

PROPOSAL: Revise 705.12(A) to add a new subsection (4).

### REVISE AS FOLLOWS:

(4) Taps or interconnections made with power distribution block connectors, split bolt connectors, piercing tap connectors, high-pressure crimp connectors, pre-insulated multitap cable connectors, or similar connectors shall be made in a dedicated, approved junction box, pull box, or wireway of not less than 1650 cm<sup>3</sup> (100 in.<sup>3</sup>) that complies with (a) through (f):

**(a) Installation.**

Connectors shall be listed.

**(b) Installation Instructions.**

In addition to the overall size requirement in the first sentence of 705.12(A)(4), the connectors shall be installed in a junction box, pull box, or wireway that has dimensions not smaller than any dimensions specified in the installation instructions.

**(c) Wire Bending Space.**

Wire bending space at the terminals of connections shall comply with 312.6.

**(d) Live Parts (Energized)**

There shall be no energized, uninsulated parts left exposed within the junction box, pull box, or wireway, whether or not the cover is installed.

**(e) Marking.**

The junction box, pull box, or wireway shall be marked, WARNING PHOTOVOLTAIC POWER SOURCE INTERCONNECTION by means of a permanently affixed label or other approved permanent marking.

**(f) Grounding.**

Where the enclosure is metal, it shall be grounded in accordance with 250.148(C).

JUSTIFICATION: F, G, H

It has become a significant concern in Southern NV that tap connections are being made inside subpanels with insufficient wiring space. Subpanels can no longer comply with the applicable enclosure fill requirements. This puts an undue burden on the AHJ because the first time it is discovered is while on inspection. At the plan review stage, the permit is passed because it shows a legal, back-fed overcurrent device as the interconnection, which complies with 705.12(B)(1). At some point during the installation process, the approved plans are disregarded, and the interconnection is made using larger connectors in an overcrowded subpanel and within the general vicinity of the panel lugs. This is happening very frequently. This results in a substandard installation for the customer. It also results in a subpanel that is not safe for future servicing or modifications. In Southern NV, the permit type with one of the largest number of rejections for both plan review and inspections is solar. This would also help expedite plan review since the use of a dedicated junction box creates a clear point of delineation between the electrical service supplied by the homebuilder and the photovoltaic system supplied by the solar contractor.

**SNBO CRITERIA:** Check all applicable SNBO Criteria that apply to the amendment proposal:

<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>	<b>x</b>	<b>G</b>	<b>x</b>	<b>H</b>	<b>x</b>	<b>I</b>		<b>J</b>
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**COST IMPACT:** The cost impact is minimal. This will save time and money for AHJs regarding plan review and inspection efforts. Most importantly, it will help ensure a cleaner and code-compliant solar installation for the taxpayer.

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>

**RESULT: Approved**  
**Motion: Stephen**  
**2nd: Chris Hunter**

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC

AMENDMENT NO.: 54

COMMITTEE: 2023 NEC

CODE SECTION: 695.6(A)(2)(4)

PROPONENT: Christel Hunter

PROPOSAL: Revise 695.6(A)(2)(4) for concrete encasement

### REVISE AS FOLLOWS:

(2) Feeders.

Fire pump supply conductors on the load side of the final disconnecting means and overcurrent device(s) permitted by 695.4(B) or conductors that connect directly to an on-site standby generator shall comply with all of the following:

List items (1) through (3) remain unchanged.

(4) *Inside of a Building.* Where routed through a building, the conductors shall be protected from fire for 2 hours using one of the following methods:

- a. The cable or raceway is encased in concrete with a minimum 50 thickness of 127 mm (25 in.) of concrete measured from each point on the surface of the cable or raceway. Exception No. 1: Cables and raceways installed underground shall not be considered to be inside the building. Exception No. 2: Alternative thicknesses of concrete shall be permitted to be selected by a licensed professional engineer qualified in such design. The selection shall be documented and stamped by the professional engineer.

Informational Note: See Fire Protection Research Foundation Report FPRF-2018-16, "Fire Resistance of Concrete for Electrical Conductors," for information about concrete fire resistance.

(Remainder of Section is unchanged.)

### JUSTIFICATION:

The Fire Protection Research Foundation report titled **Fire Resistance of Concrete for Electrical Conductors (NFPA FPRF-2018-16)** found that 2 inches of concrete does not always provide the equivalent of 2 hours of fire protection. Their recommendation is that

electrical feeders should be encased in 5 inches of concrete when concrete is used as a means of fire protection.

<https://www.nfpa.org/education-and-research/research/fire-protection-research-foundation/projects-and-reports/fire-resistance-of-concrete-for-electrical-conductors>

**SNBO CRITERIA:** Check all applicable SNBO Criteria that apply to amendment proposal:

<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>	<b>X</b>	<b>G</b>	<b>X</b>	<b>H</b>	<b>X</b>	<b>I</b>		<b>J</b>	
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**COST IMPACT:** Minimal amount of extra concrete in limited installations.

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
<b>Y</b>	<b>Y</b>	<b>N/A</b>	<b>Y</b>	<b>N/A</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>

**RESULT: Approved**  
**Motion: Chris Hunter**  
**2nd: Nick – CC**

## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC

AMENDMENT NO.: 55

COMMITTEE: NEC

CODE SECTION: 700.10(D)(2)(5)

PROPONENT: Christel Hunter

PROPOSAL: Revise 700.10(D)(2)(5) for concrete encasement

### REVISE AS FOLLOWS:

(2) Feeder-Circuit Wiring.

Feeder-circuit wiring shall meet one of the following conditions:

List items (1) through (4) remain unchanged.

(4) The cable or raceway is encased in concrete with a minimum thickness of 50127 mm (25 in.) measured from each point on the surface of concrete the cable or raceway.

Exception No. 1: Cables and raceways installed underground shall not be considered to be inside the building.

Exception No. 2: Alternative thicknesses of concrete shall be permitted to be selected by a licensed professional engineer qualified in such design. The selection shall be documented and stamped by the professional engineer.

Informational Note No. 3: See Fire Protection Research Foundation Report FPRF-2018-16, "Fire Resistance of Concrete for Electrical Conductors," for information about concrete fire resistance.

### JUSTIFICATION:

The Fire Protection Research Foundation report titled **Fire Resistance of Concrete for Electrical Conductors (NFPA FPRF-2018-16)** found that 2 inches of concrete does not always provide the equivalent of 2 hours of fire protection. Their recommendation is that electrical feeders should be encased in 5 inches of concrete when concrete is used as a means of fire protection.

<https://www.nfpa.org/education-and-research/research/fire-protection-research-foundation/projects-and-reports/fire-resistance-of-concrete-for-electrical-conductors>

**SNBO CRITERIA:** Check all applicable SNBO Criteria that apply to the amendment proposal:

<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>	<b>x</b>	<b>G</b>	<b>x</b>	<b>H</b>	<b>x</b>	<b>I</b>		<b>J</b>	
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**COST IMPACT:** Minimal amount of extra concrete in limited installations.

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y

**RESULT: Approved**  
**Motion: Chris Hunter**  
**2nd Nick Sasso – CC**

800.179(E)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC

AMENDMENT NO.: 56

COMMITTEE: NEC

CODE SECTION: 800.179(E)

PROPONENT: Nick Sasso

PROPOSAL: Add list item (4) to 800.179(E)

### REVISE AS FOLLOWS:

#### **800.179(E) Circuit Integrity (CI) Cable, Fire-Resistive Cable System, or Electrical Circuit Protective System.**

Cables that are used for survivability of critical circuits under fire conditions shall be listed and meet either 800.179(E)(1), (E)(2), ~~or~~(E)(3) or (E)(4).

List items (1) through (3) remain unchanged.

#### **(4) Concrete Encasement**

The cable or raceway is encased in concrete with a minimum thickness of ~~50~~127 mm (25 in.) measured from each point on the surface of concrete ~~the~~ the cable or raceway.

Exception No. 1: Cables and raceways installed underground shall not be considered to be inside the building.

Exception No. 2: Alternative thicknesses of concrete shall be permitted to be selected by a licensed professional engineer qualified in such design. The selection shall be documented and stamped by the professional engineer.

Informational Note No. 3: See Fire Protection Research Foundation Report FPRF-2018-16, "Fire Resistance of Concrete for Electrical Conductors," for information about concrete fire resistance.

### JUSTIFICATION:

This is added as an additional option for protection of communications cables. The Fire Protection Research Foundation report titled **Fire Resistance of Concrete for Electrical Conductors (NFPA FPRF-2018-16)** found that 2 inches of concrete does not always provide the equivalent of 2 hours of fire protection. Their recommendation is that electrical feeders should be encased in 5 inches of concrete when concrete is used as a means of fire protection.

<https://www.nfpa.org/education-and-research/research/fire-protection-research-foundation/projects-and-reports/fire-resistance-of-concrete-for-electrical-conductors>

**SNBO CRITERIA:** Check all applicable SNBO Criteria that apply to the amendment proposal:

<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>	<b>X</b>	<b>G</b>	<b>X</b>	<b>H</b>	<b>X</b>	<b>I</b>		<b>J</b>	
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**COST IMPACT:** Minimal amount of extra concrete in limited installations.

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
<b>Y</b>	<b>Y</b>	<b>N/A</b>	<b>Y</b>	<b>N/A</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>

**RESULT: Approved**  
**Motion: Nick Sasso - CC**  
**2nd: Chris Hunter**



210.8(A)(2)

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**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC**

AMENDMENT NO.: 57 **AMENDMENT WITHDRAWN**

COMMITTEE: NEC

CODE SECTION: 210.8(A)(2)

PROPONENT: David Wadsworth

PROPOSAL:

REVISE AS FOLLOWS:

JUSTIFICATION:

SNBO CRITERIA: Check all applicable SNBO Criteria that apply to the amendment proposal:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>
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COST IMPACT: None

COMMITTEE ACTION:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	N/A	Y	Y	Y

RESULT: APPROVED - **WITHDRAWN**

Motion: Dave Wadsworth

2nd: Stephen – Clark County

210.52(C)(2)

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## SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC

AMENDMENT NO.: 58

COMMITTEE: 2023 NEC

CODE SECTION: 210.52(C)(2)

PROPONENT: Clark County

PROPOSAL: Revise section 210.52(C)(2)

**REVISE AS FOLLOWS:**

210.52(C) Countertops and Work Surfaces.

(2) Island and Peninsular Countertops and Work Surfaces.

Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with 210.52(C)(3). If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface. Minimum provisions shall include installing a junction box containing circuit conductors from one of the small-appliance branch circuits. The junction box shall be accessible and located within the island or peninsular cabinet space.

**JUSTIFICATION:**

The added language provides clear interpretation and guidance as to what meets the requirements of the minimum provision.

**SNBO CRITERIA:** Check all applicable SNBO Criteria that apply to the amendment proposal:

A	B	C	D	E	F	X	G	H	X	I	J
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**COST IMPACT:** Minimal, if any.

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	N/A	Y	Y	Y

**RESULT: APPROVED**  
**Motion: David Wadsworth – M&M**  
**2nd: Stephen – Clark County**

**250.52(B)**

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**SOUTHERN NEVADA CODE AMENDMENT FORM – 2023 NEC**

**AMENDMENT NO.:** 59

**COMMITTEE:** NEC

**CODE SECTION:** 250.52(B)

**PROPONENT:** Clark County

**PROPOSAL:** Revise section 250.52(B)

**REVISE AS FOLLOWS:**

**250.52(B) Not Permitted for Use as Grounding Electrodes.**

Language and list items (1) through (3) remain the same.

List item (4) shall be added:

(4) Pipe and plate electrodes

**JUSTIFICATION: B, F**

Adding the prohibition on pipe and plate electrodes in 250.52(B) clarifies and correlates with the deletion of these devices in local amendments.

**COST IMPACT:** None

**COMMITTEE ACTION:**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**RESULT: APPROVED**

**Motion: Joe Crapo**

**2nd: Nick Sasso**