

DEVELOPMENT SERVICES PROPOSED AMENDMENTS

Note: <u>Underlined</u> text indicates additions and <u>Strikethrough</u> text indicates deletions in the Lighting Code and 2023 National Electrical Code (NEC) / National Fire Protection Association (NFPA) 70.

Proposal No. 1

Amendment to the Lighting Code and National Electrical Code / NFPA 70

The following publications are hereby adopted by reference as if set out at length in this Code, three copies of which shall be filed in the office of the City Clerk and kept available for public use and inspection:



Amendment to Lighting Code – Section (B)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Conformance with Applicable Regulations. All outdoor artificial illuminating devices shall be designed and installed in conformance with the provisions of this Section and all other Sections of Chapter 4-4. Where provisions of the Arizona State Statutes, or of the Federal laws, or other regulation of the City conflicts with the requirements of this Section, the most restrictive shall govern.

Justification:

No changes. Existing amendment.



Amenament to Lig	<u>hting Code – Section (C)</u>
Original Code Text:	
There is no original code text. This is an added see	etion.
Recommended Amendment:	2
Public street lighting shall be in conformance with	n the City of Mesa engineering and design standard
Justification:	
No changes. Existing amendment.	
Adopted under 2018 Amendments: Yes 🛛	No 🗆
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Amendment to Lighting Code – Section (D)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Definitions. The following definitions shall apply to this chapter:

AMBIENT LIGHT LEVEL: The measured light level at night when all the lights associated with a facility are off.

FILTERED: Outdoor light fixtures whose transmission is less than 5% total emergent flux at wavelengths less than 3,900 angstroms. Total emergent flux is defined as that between wavelengths of 3,000 and 7,000 angstrom units.

FULLY SHIELDED: Those fixtures designed and erected in such a manner that light rays emitted by the fixture, either directly from the lamp or indirectly from the fixture, are only projected below a horizontal plane running through the lowest point on the fixture where light is emitted.

INSTALLED: The initial installation of outdoor light fixtures defined herein, provided the date of such installation is on or after September 18, 2004.

OUTDOOR LIGHT FIXTURES: Outdoor artificial illuminating devices, outdoor fixtures, lamps, and other devices, permanent or portable, used for illumination or advertisement. Such devices shall include, but are not limited to, lighting for buildings and structures, recreational areas, parking lots, landscape areas, billboards and other signage, and private street lighting.

PARTIALLY SHIELDED: Those fixtures designed and erected in such a manner that the bottom edge of the shield is below the plane of the centerline of the light source (lamp), minimizing the light emitted above the horizontal.

Justification:	
No changes. Existing amendment.	
Adopted under 2018 Amendments: Yes ⊠	No 🗆



Amendment to Lighting Code – Section (E)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Shielding and Filtering. All exterior illuminating devices, except those exempt from this Section, shall be fully or partially shielded and filtered as required in the following table:

TABLE 4-4-1(F) REQUIREMENTS FOR SHIELDING AND FILTERING

FIXTURE LAMP TYPE	SHIELDED	FILTERED (4)
Low-Pressure Sodium (1)	Partially	None
High-Pressure Sodium	Partially	None
Metal Halide	Fully	Yes
Fluorescent	Partially (3)	Yes (5)
Quartz (2)	Partially	None
Incandescent Greater than 150W	Partially	None
Incandescent 150W or less	None	None
Fossil Fuel	None	None
Glass Tubes Filled with Neon, Argon, Krypton	None	None
Other Lamp Types As Approved by the Building Safety Director		lding Safety
Footnotes:	•	
(1) This is the preferred lamp type to minimize unaffecting astronomical observations.	ndesirable light into the ni	ght sky, negatively
(2) For the purposes of this Section, quartz lamps source.		· ·
(3) Outdoor advertising signs of the type construction within do not require shielding.		
(4) Glass, acrylic, or translucent enclosures shall	be deemed to satisfy filter	requirements.
(5) Warm White and Natural Lamps are recomme	ended to minimize detrime	ental effects.

Justification:

No changes. Existing amendment.	
Adonted under 2018 Amendments: Ves 🛛	No F



Amendment to Lighting Code – Section (F)

Original Code Text: There is no original code text. This is an added section.

Recommended Amendment:

Visibility. No fixture, with a lamp size greater than 150W incandescent, shall be designed or erected where the lamp is directly visible to a person standing at the property line.

Justification:
No changes. Existing amendment.



Amendment to Lighting Code - Section (G)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Light Spillage. The light level at any property line, measured 36 inches above ground level, shall be not more than 0.5 footcandles (5 Lux) above ambient light level, except for property lines adjacent to residential use property, the light level shall be not more than 0.3 footcandles (3 Lux) above ambient light level. Where the property is adjacent to a public street, the property line may be considered to be the centerline of the street.

Justification:

No changes. Existing amendment.



Amendment to Lighting Code – Section (H)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Prohibitions. The following fixture types shall not be used within the City of Mesa:

- 1. Searchlights. The operation of searchlights for advertising purposes is prohibited between the hours of 11:00 p.m. and sunrise.
- 2. Mercury Vapor. The installation of mercury vapor fixtures is prohibited.
- 3. Maximum lamp wattage shall be limited in relation to mounting height as set forth in the following table, except for special use as approved:

TABLE 4-4-1(H) MAXIMUM WATTAGE FOR MOUNTING HEIGHT

Wattage		Height
1,000		40 ft.
400		25 ft.
250		20 ft.
150	C V	15 ft.

Fixtures with lamps less than 150 watts shall be permitted to be installed at any height, subject to conformance with other adopted codes.

Lamp wattages in this table are for HID arc lamps; other lamp types shall be limited to equivalent lumen output.

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Amendment to Lighting Code – Section (I)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Nonconforming Fixtures. Outdoor light fixtures existing and fully installed prior to September 18, 2004 that complied with all applicable codes at installation may remain as "nonconforming;" provided, however, that no change in use, replacement, structural alteration, or restoration after abandonment of the outdoor light fixtures shall be made unless it thereafter conforms to the provisions of these regulations.

Exception:

No outdoor recreational facility, public or private, shall be illuminated by nonconforming means after 11:00 p.m., except that a specific recreational or sporting event or other similar activity conducted at a ballpark, outdoor amphitheater, arena, or similar facility in progress prior to 11:00 p.m. may continue until concluded.

Justification:		
No changes. Existing amendment.) ′	
Adopted under 2018 Amendments: Yes ⊠	No	



Amendment to Lighting Code - Section (J)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Fossil Fuel Lights (Gas). Lighting produced by the combustion of natural gas or other utility-type fossil fuels shall be exempt from the requirements of this Section, except lighting produced indirectly from combustion of natural gas or other utility-type fossil fuels, such as through the use of electricity to produce lighting shall not be exempted from compliance.

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No changes. Existing amendment.



Amendment to Lighting Code – Section (K)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Federal and State Facilities. Facilities and lands owned, operated, or protected by the U.S. Federal Government or the State of Arizona are exempted by law from all requirements of this Section. Voluntary compliance with the intent of this Section at such facilities is encouraged.

Justification:

No changes. Existing amendment.



Amendment to Lighting Code – Section (L)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Special Exemption. The Building Safety Director may grant a special exemption to the requirements of this Section only upon finding, in writing, that there are extreme geographic or geometric conditions warranting such exemption and that there are no conforming fixtures that can comply.

Justification:

No changes. Existing amendment.



Proposal No. 13 <u>Amendme</u>	nt to Lighting Code – Section (M)
Original Code Text:	
There is no original code text. This is an	n added section.
Recommended Amendment:	
be exempt from compliance with this S	rd-emitting lighting located upon existing outdoor advertising sha Section, provided that such lighting is equipped with a permaner e operated between the hours of 11:00 p.m. and 6:00 a.m.
Justification:	
No changes. Existing amendment.	
Adopted under 2018 Amendments: Y	es ⊠ No □
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Amendment to Lighting Code – Section (N)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Automatic Shutoff Device. In addition to the specific exemptions provided in this Section, outdoor light fixtures not meeting the provisions of this Section shall be allowed to remain, provided such fixtures are extinguished between the hours of 11:00 p.m. and sunrise by an automatic shutoff device.

Justification:

No changes. Existing amendment.



Amendment to Lighting Code - Section (O)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Temporary Exemptions. The Building Safety Director may grant a temporary exemption to the requirements of this Section, for a period of up to 30 days, renewable at the discretion of the Building Safety Director.

The request for temporary exemption shall be submitted by the property owner and shall contain the following information, at a minimum:

- 1. Specific exemptions requested.
- 2. Type and use of exterior lighting involved.
- 3. Type of shielding and filtering of fixtures, if any.
- 4. Duration of time for the requested exemption.
- 5. Type of lamp and calculated lumens for all fixtures involved.
- 6. Total wattage of lamps for all fixtures involved.
- 7. Proposed location of exterior lighting.
- 8. Previous temporary exemptions, if any.
- 9. Other data and information as required by the Building Safety Director.

Within 5 working days from the receipt of a properly completed request for temporary exemption, the Building Safety Director shall approve or reject the request. Such action shall be in writing. If rejected, the applicant shall have the right of appeal to the Building Board of Appeals, pursuant to Title 2 Chapter 11 of the Mesa City Code.

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Adopted under 2018 Amendments: Yes	\boxtimes	No 🗆

No changes. Existing amendment.



Amendment to Lighting Code – Section (P)

Original Code Text:

There is no original code text. This is an added section.

Recommended Amendment:

Flagpole Lighting. Upward emitting lighting whose purpose is to illuminate a flag on a flagpole at night shall be exempt from compliance with this section provided all of the following provisions are met:

- 1. The flag flown on the flagpole shall be permitted under Title 11, Mesa Zoning Ordinance.
- 2. The fixtures used to illuminate the flag shall be of a light source permitted by this Chapter with lamps rated at not more than 75 watts.
- 3. The fixture used to illuminate the flag shall be limited to not more than three fixtures, ground or building mounted, aimed upwards, with no fixture exceeding the light level or lamp visibility requirements shown in Subparagraph (G) or (H) above.

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No changes. Existing amendment.	
Adopted under 2018 Amendments: Yes ⊠	No 🗆
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Amendment to National Flectrical Code

	ction – Article 80.1
Original Code Text:	
There is no original code text. This is an added sect	ion.
Recommended Amendment:	
	"Mesa Electrical Code," may be cited as such, and will
Administrative Code.	ration of this Code, refer to Title 4, Chapter 1, Mesa
Justification:	
Code requires the adopting jurisdiction to be identif	fied by name.
Adopted under 2018 Amendments: Yes ⊠	No 🗆



Amendment to National Electrical Code (NEC) Article 100

Original Code Text:

AUTHORITY HAVING JURISDICTION (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

There is no original code text for ELEVATOR DISCONNECT ROOM OR CLOSET. This is an added definition.

Recommended Amendment:

AUTHORITY HAVING JURISDICTION (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure. The Authority Having Jurisdiction shall be construed to be the Building Safety Director or designee who is responsible for administering and enforcing the Mesa Electrical Code.

ELEVATOR DISCONNECT ROOM OR CLOSET. An enclosed room or closet, with full-height door, located outside the hoistway, intended to be accessed with or without full bodily entry that is dedicated to electrical and/or mechanical equipment used directly in connection with the elevator when the elevator controller is located in the hoistway. The elevator disconnect required in 620.51(A), and the other elevator related disconnects, overcurrent devices, lighting, receptacles, etc. required by 620.22, 620.23, and 620.25 shall be located in this room or closet. In other than one- and two-family dwellings, and unless special permission is granted, the room or closet shall be located on the same level as the controller, within 50 feet of travel distance from the hoistway, shall be accessed directly from the corridor, and shall be accessible to qualified persons only. A label shall be provided at the elevator controller location identifying the location of the elevator disconnect room or closet. In one- and two-family dwellings only, an elevator disconnect room or closet shall not be required where the disconnecting means is located outside the hoistway in a readily accessible location and accessible to qualified persons only by being lockable in both the open and closed position and labeled in accordance with 110.22(A). The provisions for locking shall remain in place with or without the lock installed. The other disconnects, overcurrent devices, lighting, and receptacles required by 620.22, 620.23, and 620.25 shall be located adjacent to the disconnect required in 620.51(A).



Justification:

Elevator Disconnect Room or Closet. Definition added for Elevator Disconnect Room or Closet to define the dedicated space required to contain elevator disconnects when elevator controllers are in the hoistway. MRL (Machine Room Less) elevators typically have elevator controllers located in the hoistway. The code requires disconnecting means for the elevator and related equipment to be located outside the hoistway in a readily accessible location for qualified people only. The definition provides clarity for disconnect height and also aligns with NEC 620.51(C)(1), 620.22, 620.23, 620.25, 100, and 110.26. Placing the disconnect close to the hallway provides easy access to first responders and elevator personnel in the event of an emergency. This is further emphasized by the requirement for a label indicating the location of the room or closet. In one- and two-family dwellings only, the room or closet is optional. The disconnect must be located outside the hoistway, readily accessible and lockable in both the open and closed position and labeled. The other disconnects, overcurrent devices, lighting, and receptacles required by 620.22, 620.23, and 620.25 shall be located adjacent to the disconnect required in 620.51(A).

Adopted	under	2018	Amendments:	Yes	\boxtimes	No	
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Amendment to National Electrical Code (NEC) Article 210.52(C)

Original Code Text:

210.52(C)(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.

Section 210.52(C)(3) Receptacle Outlet Location. Receptacle outlets shall be located in one or more of the following:

- 1. On or above, but not more than 20 inches (500 mm) above, a countertop or work surface.
- 2. In a countertop using receptacle outlet assemblies listed for use in countertops.
- 3. In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops.

Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in 210.52(C)(1), Exception No. 1, or appliances occupying assigned spaces shall not be considered as these required outlets.

Recommended Amendment:

210.52(C)(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. At least one receptacle shall be installed at each island and peninsular countertop space with a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. A peninsular countertop is measured from the connected perpendicular wall.

Section 210.52(C)(3) Receptacle Outlet Location. Receptacle outlets shall be located in one or more of the following:

- 1. On or above, but not more than 20 inches (508 mm) above, a countertop or work surface.
- 2. In a countertop using receptacle outlet assemblies listed for use in countertops.
- 3. In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops.



Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in 210.52(C)(1), Exception No. 1, or appliances occupying assigned spaces shall not be considered as these required outlets.

Exception:

- 1. Construction for the physically impaired.
- 2. Receptacle outlets shall be permitted to be mounted not more than 12 inches (305 mm) below the countertop or work surface where the countertop or work surface extends 6 inches (152 mm) or less beyond its base cabinet support.

Justification:

The NEC is a minimum code requirement which unnecessarily limits receptables below counter tops and work surfaces. The U.S. Consumer Protection Safety Commission (CPSC) supports this change. The cause of incidents recorded by the CSPC do not directly trace to receptacles below the countertops of islands and peninsulas. The ultimate responsibility during the use of electrical appliances falls upon the user. Manufacturers of cooking appliances already include multiple warnings in their manuals. The inclusion of magnetic cords address this safety issue since they are designed to easily detach from appliance when pulled. The proposed change does not actually prohibit all receptacles from being installed below a countertop on an island or peninsula, and therefore, will have limited effect. For example, only receptacles installed "to serve" an island or peninsular countertop or work surface would need to be installed in the areas specified by 210.52(C)(4). Convenience receptacles (at the standard height of 18 inches above finished floor) installed in an island or peninsula do not serve the countertop or work surface, and therefore, would be allowed. Additionally, this provision is located under Part III. of article 210 titled Required Outlets (beginning at Section 210.50). Because this section only applies to required outlets, additional outlets would be allowed below the countertop as usual. The reason given during the panel meeting for the new requirement under 210.52(C)(2) was that it would be too difficult to install a receptacle in an island or peninsula on a slab-on-grade floor after the home was completed. However, over a third of all new singlefamily homes are built over either a basement or a crawl space (source: https:// eyeonhousing.org / 2021 / 08/65-of-newsingle-family-homes-used-slab-foundationin-2020/). In these cases, it is possible to access the island or peninsula from below if a future receptacle were to be installed. Requiring all homes to meet the proposed text is too restrictive. Furthermore, various inspectors may enforce this provision differently. "Provisions shall be provided" is a very open requirement and can lead to differing guidance from no additional work needed to providing a powered circuit terminating in an electrical box. Requirements open to interpretation can be enforced much more strictly than intended thus adding unnecessary costs to the homeowner.

Adopted u	nder 2018	Amendments:	Yes	Ш	No	M
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Amendment to National Electrical Code (NEC) Article 210.52(G)(1)

Original Code Text:

Section 210.52(G)(1) Garages. In each attached garage and in each detached garage with electric power, at least one receptacle outlet shall be installed in each vehicle bay and not more than 5 ½ ft. (1.7 m) above the floor.

Exception:

Garage spaces not attached to an individual dwelling unit of a multifamily dwelling shall not require a receptacle outlet in each vehicle bay.

Recommended Amendment:

Section 210.52(G)(1) Garages. In each attached garage and in each detached garage with electric power, at least one receptacle outlet shall be installed in each vehicle bay at not less than 18 inches and not more than $\frac{1.7 \text{ m}}{5} = \frac{1}{2} = \frac{1}{2}$

Exception:

Garage spaces not attached to an individual dwelling unit of a multifamily dwelling shall not require a receptacle outlet in each vehicle bay.

Justification:

Private/dwelling garages are often used to work on vehicles or other equipment containing hazardous liquids and gases. The revision of this code provides a minimum and maximum height so as to avoid potential ignition sources which could cause fire, property damage, injury, or death. Several jurisdictions around the United States have amended this section of NEC 210.52 to address this situation. This modification is mirrored under 2024 IRC section E3901.9.

Adopted under	2018	3 Amendments:	Yes		No	\boxtimes
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Amendment to National Electrical Code (NEC) Article 230.70(B)

Original Code Text:

230.70 (B) Marking. Each service disconnect shall be permanently marked to identify it as a service disconnect.

Recommended Amendment:

230.70 (B) Marking. Each service disconnect shall be permanently marked to identify it as a service disconnect. Markings shall be of sufficient durability to withstand the environment involved. Identifying labels required for disconnecting means shall have engraved or raised letters and be secured by screws or rivets (plastic tape shall not be considered durable material).

Justification:

Streamlined requires markings of electrical disconnects to be durable and clear to prevent any misinformation.



Amendment to National Electrical Code (NEC) Article 250.118(A)

Original Code Text:

250.118 (A) Permitted. The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

4. Electrical metallic tubing.

Recommended Amendment:

250.118 (A) Permitted. The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

4. Electrical metallic tubing with an additional equipment grounding conductor.

Justification:

Amendment requires specific wiring methods including individual equipment grounding conductors, supplement the low impedance path to grounds and attain reasonable compliance with requirements for fault current path performance. Modification provides higher degree of equipment grounding safety than NEC requires.



Amendment to National Electrical Code (NEC) Article 620.6(B)

Original Code Text:

620.6 (B) Machine Rooms, Control Spaces, Machinery Spaces, Control Rooms, and Truss Interiors. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in machine rooms, control spaces, machinery spaces, control rooms, and truss interiors shall have listed Class A ground-fault circuit-interrupter protection for personnel.

Recommended Amendment:

620.6 (B) Machine Rooms, Control Spaces, Machinery Spaces, Control Rooms, Elevator Disconnect Rooms or Closets, and Truss Interiors. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in machine rooms, control spaces, machinery spaces, control rooms, <u>elevator disconnect rooms or closets</u>, and truss interiors shall have listed Class A ground-fault circuit-interrupter protection for personnel.

Justification:

Added elevator disconnect rooms or closets for clarification. Aligns with Elevator Disconnect Room or Closet definition for elevator disconnects spacing, overcurrent devices, and related lighting and receptacles for elevator controllers located in the Hoistway.



Amendment to National Electrical Code (NEC) Article 620.22

Original Code Text:

620.22 (A) Car Light Receptacles, Auxiliary Lighting, and Ventilation. A separate branch circuit shall supply the car lights. The car lights branch circuit shall be permitted to supply receptacles (alarm devices, emergency responder radio coverage (ERRC), car ventilation purification systems, monitoring devices not part of the control system), auxiliary lighting power source, car emergency signaling, communications devices (including their associated charging circuits), and ventilation on each elevator car or inside the operation controller. The overcurrent device protecting the branch circuit shall be located in the elevator machine room, control room, machinery space, or control space. Where there is no machine room, control room, machinery space, or control space outside the hoistway, the overcurrent device shall be located outside the hoistway and accessible to qualified persons only.

Required lighting shall not be connected to the load side of a ground-fault circuit interrupter.

620.22 (B) Air-Conditioning and Heating Source. A separate branch circuit shall supply the air-conditioning and heating units on each elevator car. The overcurrent device protecting the branch circuit shall be located in the elevator machine room, control room, machinery space, or control space. Where there is no machine room, control room, machinery space, or control space outside the hoistway, the overcurrent device shall be located outside the hoistway and accessible only to qualified persons.

Recommended Amendment:

620.22 (A) Car Light Receptacles, Auxiliary Lighting, and Ventilation. A separate branch circuit shall supply the car lights. The car lights branch circuit shall be permitted to supply receptacles (alarm devices, emergency responder radio coverage (ERRC), car ventilation purification systems, monitoring devices not part of the control system), auxiliary lighting power source, car emergency signaling, communications devices (including their associated charging circuits), and ventilation on each elevator car or inside the operation controller. The overcurrent device protecting the branch circuit shall be located in the elevator machine room, control room, machinery space, or control space. Where there is no machine room, control room, machinery space, or control space outside the hoistway, the overcurrent device shall be located outside the hoistway in an elevator disconnect room or closet and accessible to qualified persons only.

Required lighting shall not be connected to the load side of a ground-fault circuit interrupter.

620.22 (B) Air-Conditioning and Heating Source. A separate branch circuit shall supply the air-conditioning and heating units on each elevator car. The overcurrent device protecting the branch circuit shall be located in the elevator machine room, control room, machinery space, or control space. Where there is no machine room, control room, machinery space, or control space outside the hoistway, the overcurrent device shall be located outside the hoistway in an elevator disconnect room or closet and accessible only to qualified persons.



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Amendment to National Electrical Code (NEC) Article 620.23

Original Code Text:

620.23 (A) Separate Branch Circuits. The branch circuits supplying the lighting for machine rooms, control rooms, machinery spaces, control spaces, or truss interiors, where required, shall be separate from the branch circuits supplying the receptacles in those places. These circuits shall supply no other loads.

Required lighting shall not be connected to the load side of a ground-fault circuit interrupter.

- **620.23 (B) Lighting Switch.** The machine room, control room/machinery space, or control space, lighting switch shall be located at the point of entry.
- **620.23 (C) Duplex Receptacle.** At least one 125-volt, single-phase, 15- or 20-ampere duplex receptacle shall be provided in each machine room, control room and machinery space, control space, and in truss interiors where required.

Recommended Amendment:

620.23 (A) Separate Branch Circuits. The branch circuits supplying the lighting for machine rooms, control rooms, machinery spaces, control spaces, <u>elevator disconnect rooms or closets</u>, or truss interiors, where required, shall be separate from the branch circuits supplying the receptacles in those places. These circuits shall supply no other loads.

Required lighting shall not be connected to the load side of a ground-fault circuit interrupter.

- **620.23 (B) Lighting Switch.** The machine room, control room/machinery space, or control space, or elevator disconnect room or closet lighting switch shall be located at the point of entry.
- **620.23 (C) Duplex Receptacle.** At least one 125-volt, single-phase, 15- or 20-ampere duplex receptacle shall be provided in each machine room, control room and machinery space, control space, <u>elevator disconnect room or closet</u>, and in truss interiors where required.

Justification:

Added elevator disconnect rooms or closets for clarification. Aligns with Elevator Disconnect Room or Closet definition for elevator disconnects spacing, overcurrent devices, and related lighting and receptacles for elevator controllers located in the hoistway.

Adopted under	2018	Amendments:	Yes	No	\boxtimes



Amendment to National Electrical Code (NEC) Article 620.25

Original Code Text:

620.25 (B) Overcurrent Devices. The overcurrent devices protecting the branch circuit(s) shall be located in the elevator machine room, control room, machinery space, or control space. Where there is no machine room, control room, machinery space, or control space outside the hoistway, or for escalator and moving walk applications, the overcurrent device shall be located outside the hoistway and accessible only to qualified persons.

Recommended Amendment:

620.25 (B) Overcurrent Devices. The overcurrent devices protecting the branch circuit(s) shall be located in the elevator machine room, control room, machinery space, or control space. Where there is no machine room, control room, machinery space, or control space outside the hoistway, or for escalator and moving walk applications, the overcurrent device shall be located outside the hoistway <u>in an elevator disconnect</u> room or closet and accessible only to qualified persons.

Justification:

Added elevator disconnect rooms or closets for clarification. Aligns with Elevator Disconnect Room or Closet definition for elevator disconnects spacing, overcurrent devices, and related lighting and receptacles for elevator controllers located in the hoistway.



Amendment to National Electrical Code (NEC) Article 620.51(C)

Original Code Text:

620.51(C) Location

The disconnecting means shall be located where it is readily accessible to qualified persons.

620.51(C)(1) On Elevators Without Generator Field Control. On elevators without generator field control, the disconnecting means shall be located within sight of the motor controller. Where the motor controller is located in the elevator hoistway, the disconnecting means required by 620.51(A) shall be located outside the hoistway and accessible to qualified persons only. An additional fused or non-fused, enclosed, externally operable motor-circuit switch that is lockable open in accordance with 110.25 to disconnect all ungrounded main power-supply conductors shall be located within sight of the motor controller. The additional switch shall be a listed device and shall comply with 620.91(C).

Driving machines or motion and operation controllers not within sight of the disconnecting means shall be provided with a manually operated switch installed in the control circuit to prevent starting. The manually operated switch(es) shall be installed adjacent to this equipment.

Where the driving machine of an electric elevator or the hydraulic machine of a hydraulic elevator is located in a remote machine room or remote machinery space, a single means for disconnecting all ungrounded main power-supply conductors shall be provided and be lockable open in accordance with 110.25.

Recommended Amendment:

620.51(C)(1) On Elevators Without Generator Field Control. On elevators without generator field control, the disconnecting means shall be located within sight of the motor controller. Where the motor controller is located in the elevator hoistway, the disconnecting means required by 620.51(A) shall be located outside the hoistway in an elevator disconnect room or closet and accessible to qualified persons only. An additional fused or non-fused, enclosed, externally operable motor-circuit switch that is lockable open in accordance with 110.25 to disconnect all ungrounded main power-supply conductors shall be located within sight of the motor controller. The additional switch shall be a listed device and shall comply with 620.91(C).

Driving machines or motion and operation controllers not within sight of the disconnecting means shall be provided with a manually operated switch installed in the control circuit to prevent starting. The manually operated switch(es) shall be installed adjacent to this equipment.

Where the driving machine of an electric elevator or the hydraulic machine of a hydraulic elevator is located in a remote machine room or remote machinery space, a single means for disconnecting all ungrounded main power-supply conductors shall be provided and be lockable open in accordance with 110.25.



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Amendment to National Electrical Code (NEC) Article 625.43

Original Code Text:

There is no original code text. This is an added section

Recommended Amendment:

625.43 Disconnecting Means. For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location not less than 15 feet (4,572 mm) or more than 50 feet (9,144 mm) If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

Justification:

Proposed amendment enhances safety for high-capacity Electric Vehicle Supply Equipment (EVSE) and Wireless Power Transfer Equipment (WPTE) rated over 60 amperes or 150 volts to ground by requiring a disconnecting means to be located no closer than 15 feet and no farther than 50 feet from the equipment. This range ensures the disconnect is accessible for emergency shutdowns or maintenance while preventing it from being too close to pose a hazard during servicing. Requiring the disconnecting means to be lockable open, per NEC 110.25, further supports safe maintenance practices by preventing accidental reenergization.