

CHAPTER 23.30 - LOCAL AMENDMENTS TO THE NATIONAL ELECTRICAL CODE 2014 EDITION

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23.30.10 Local amendments to the National Electrical Code 2014 Edition.

The amendments to the 2014 edition of the National Electrical Code are listed here by section. The last digits of the number after the title and chapter digits are the article, section and subsection of the National Electrical Code to which the amendment refers, i.e., 23.30.210.23(E) refers to article 210, section 210.23 and subsection (E) of the National Electrical Code, 2014 Edition.

Informational Note: For further information on other Building Codes, Policies and Handouts that may affect electrical installation requirements go to the Municipality of Anchorage, Building Safety Website at: www.muni.org/departments/ocpd/development/bsd

23.30.20 Certificate of fitness—right to inspection.

Municipal electrical inspectors may contact any electrical worker performing work for which a certificate of fitness is required by Alaska Statue 18.62.070 and request the person to exhibit their certificate of fitness or trainee certificate of fitness. The inspector may immediately serve upon that person a notice to cease any further work in that occupation until the person has demonstrated possession of the required certificate.

23.30.210.12(A) Arc-fault circuit-interrupter protection (dwelling units).

Delete items (3) and (4).

23.30.210.23(E) Permissible loads, multiple-outlet branch circuits (outlets per circuit).

Add subsection (E) as follows:

(E) Outlets per circuit. In dwelling units, no more than thirteen (13) outlets are allowed on one branch circuit. All smoke detectors on a circuit may be counted as a total of one outlet. Appliance circuits are limited to six (6) duplex receptacles per circuit.

Exception: Fixed lighting circuits designed to meet the appropriate sections of the code.

23.30.210.52(J) Dwelling unit receptacle outlets (parking spaces).

Add subsection (J) as follows:

(J) Parking spaces. For each dwelling unit and mobile home, there shall be at least one (1) exterior GFCI protected duplex outlet on a separate 20-ampere circuit adjacent to required on-site parking locations.

Exception: For multi-family dwellings, eight-plex and larger where indoor parking is provided, the required number of exterior duplex receptacles may be reduced by the number of indoor heated parking locations.

23.30.210.52(K) Dwelling unit receptacle outlets (under-floor crawl spaces).

Add subsection (K) as follows:

(K) Under-floor crawl spaces. A receptacle shall be provided in each unconnected space; the receptacle shall be located adjacent to a sump when one is provided.

23.30.230.1 Scope.

Add the following sentence:

The service installation shall also conform to the written electric service requirements of the utility serving the area.

23.30.230.32 Protection against damage.

Add the following paragraph:

Physical protection of underground service laterals for residential services of 200 amperes and less shall consist of not more than nine feet of liquid tight flexible metal conduit.

23.30.230.70(A)(1) Readily accessible location.

Add the following paragraph:

The service disconnecting means shall be operable from the exterior of the building if the service disconnect is within the building. A fire pump service disconnect is not required to be operable from the exterior of the building.

23.30.230.70(A)(3) Remote control.

Replace subsection (3) with:

(3) Remote Control. Where a remote control device(s) is used to actuate the service disconnecting means, the service disconnecting means shall be located in accordance with section 230.70(A)(1). The control device shall meet the requirements of the electrical utility.

23.30.250.53(D)(2) Metal underground water pipe, supplemental electrode required.

Delete the exception.

23.30.250.68(C) Grounding electrode connections.

Delete the exception under location (1).

23.30.250.118 Types of equipment grounding conductors.

Delete items (2) through (14) and replace with:

- (2) The copper sheath of mineral insulated, metal-sheathed cable Type MI.
- (3) Metal enclosures of busways listed for grounding.
- (4) Armor of Type AC cable as provided in 320.108.
- (5) Type MC cable that provides an effective ground-fault current path in accordance with one or more of the following:
 - a. It contains an insulated or uninsulated equipment grounding conductor in compliance with 250.118(1).

- b. The combined metallic sheath and uninsulated equipment grounding/bonding conductor of inter-locked metal tape-type MC cable that is listed and identified as an equipment grounding conductor.
 - c. The metallic sheath or the combined metallic sheath and equipment grounding conductors of the smooth or corrugated tube-type MC cable that is listed and identified as an equipment grounding conductor.
- (6) Cable trays as permitted in 392.10 and 392.60.

23.30.250.122(B) Increase in size.

Add the following to the end of the paragraph:

Increase in size shall not be required for circuits less than 100 feet in length. Circuits 100 amps or less may use the 60 degree C column for determining smallest conductor size with sufficient ampacity in accordance with section 110.14. Rounding up shall not be considered as the smallest conductor size with sufficient ampacity.

23.30.300.4(I) Protection against physical damage (roofs).

Add subsection (I) as follows:

(I) Roofs. Raceways run on the surface of a roof or subject to damage from snow, ice, or foot traffic, shall be rigid metal or intermediate metal conduit only.

23.30.300.5 Underground installations (separation from other systems).

Add subsection (L) as follows:

(L) Separation from other systems. When direct buried cables or conductors cross or are installed parallel to sewers, water lines, gas or other fuel lines, steam lines, communication and utility electric cables or conductors, a minimum 12 inch radial separation shall be maintained.

23.30.300.24 Cold temperature installations.

Add section 300.24 as follows:

300.24 Cold Temperature installations: Thermoplastic type insulated wires or cables, or non-metallic tubing shall not be installed when ambient temperatures are less than 20 degrees F.

23.30.310.15(B) Ampacities for conductors rated 0-2000 volts (tables).

Replace (7) with the following:

(7) 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders. For individual dwelling units of one family, two-family, and multifamily dwellings, conductors, as listed in Table 23.30.310.15(B)(7), shall be permitted as 120/240-volt, 3-wire, single-phase service-entrance conductors, service-lateral conductors, and feeder conductors that serve as the main power feeder to each dwelling unit and are installed in raceway or cable with or without an equipment grounding conductor. For application of this section,

the main power feeder shall be the feeder between the main disconnect and the panelboard that supplies, either by branch circuits or by feeders, or both, all loads that are part or associated with the dwelling unit. The feeder conductors to a dwelling unit shall not be required to have an allowable ampacity rating greater than their service-entrance conductors. The grounded conductor shall be permitted to be smaller than the ungrounded conductors, provided the requirements of 215.2, 220.61, and 230.42 are met.

Table 23.30.310.15(B)(7) Conductor Types and Sizes for 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders. Conductor Types RHH, RHW, RHW-2, THHN, THHW, THW, THW-2, THWN, THWN-2, XHHW, XHHW-2, SE, USE, USE-2

Service or Feeder Rating (Amperes)	Conductor (AWG or kcmil)	
	Copper	Aluminum or Copper-Clad Aluminum
100	4	2
110	3	1
125	2	1/0
150	1	2/0
175	1/0	3/0
200	2/0	4/0
225	3/0	250
250	4/0	300
300	250	350
350	350	500
400	400	600

23.30.330.40 Boxes and fittings.

Add to the end of the paragraph:

An insulated bushing or its equivalent protection shall be provided between the conductors and the outer metal sheath and must be visible for inspection.

23.30.334.10 Uses permitted.

Delete item (3).

23.30.334.104 Conductors.

Replace section 334.104 with:

334.104. Conductors. The insulated power conductors shall be sizes 14 AWG through 2 AWG with copper conductors or sizes 10 AWG through 2 AWG with aluminum or copper-clad aluminum conductors. Conductors supplying receptacles shall be minimum size 12 AWG copper conductors or sizes 10 AWG with aluminum or copper-clad aluminum conductors. The communication conductors shall comply with Part V of Article 800.

23.30.410.17 Other closet or storage spaces.

Add section 410.17 as follows:

410.17 Other Closet or Storage Spaces. Luminaires shall meet the location requirements for clothes closets or be of a totally enclosed fluorescent or LED type.

23.30.445.18 Disconnecting means required for generators.

Add the following sentence to the end of the section:

Generator disconnecting means shall conform to the requirements of sections 23.30.230.70(A)(1) and 23.30.230.70(A)(3).

23.30.510 Hazardous (classified) locations.

Add the following informational note:

Informational Note: The requirement for elevation of ignition source in the International Mechanical Code and the International Fuel Gas Code does not constitute a hazardous classification in accordance with this code. The requirement for elevation of ignition source may apply to both classified and unclassified areas. The requirement reads as follows:

Elevation of ignition source. Equipment and appliances having an ignition source and located in hazardous locations and public garages, private garages, repair garages, automotive motor fuel- dispensing facilities and parking garages shall be elevated such that the source of ignition is not less than 18 inches above the floor surface on which the equipment or appliance rests. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate directly with a private garage through openings shall be considered to be part of the private garage. Rooms and spaces that are not part of the living space of a dwelling unit shall include but not be limited to utility, storage, mud, laundry, toilet and bathing rooms. Group F (factory), M (mercantile) and S (storage) occupancies with overhead doors providing access to vehicles and equipment containing combustible fuel shall comply with this section.

23.30.511.3(C)(1) Major repair garages; floor areas.

Replace subsection (1) with:

(1) Floor Areas. The entire floor area up to a level of 18 inches above the floor shall be classified as Class I, Division 2.

23.30.511.3(C)(2) Major repair garages, ceiling areas.

Replace paragraph (a) with the following:

(a) Ventilation provided. New buildings shall be classified as Class I, Division 2. For existing buildings only, the ceiling areas shall be unclassified where ventilation is provided, from a point not more than 18 inches from the highest point in the ceiling to exhaust the ceiling area at a rate of not less than 1 cfm/ft² of ceiling area at all times that the building is occupied or when vehicles using lighter-than-air gaseous fuels are parked below this area.

23.30.511.3(D)(1) Minor repair garages; floor areas.

Replace subsection (1) with:

(1) Floor areas. Floor areas in minor repair garages without pits, below grade work areas, or subfloor work areas shall be unclassified. Where floor areas include pits, below grade work areas, or subfloor work areas in lubrication or service rooms the floor area up to a level of 18 inches above any unventilated pit, below grade work area, or subfloor work area and extending a distance of 3 feet horizontally from the edge of any such pit, below grade work area, or subfloor work area, shall be classified as Class I, Division 2.

23.30.511.3(E)(1) Specific areas adjacent to classified locations.

Replace subsection (1) with:

(1) Specific areas adjacent to classified locations. Areas adjacent to classified locations in which flammable vapors are not likely to be released such as offices, stock rooms, switchboard rooms, and other similar locations shall be unclassified where any of the following parameters apply:

- a) Adjacent areas less than 300 square feet and mechanically ventilated at a rate of four or more air changes per hour.
- b) Adjacent areas designed with positive air pressure.
- c) Adjacent areas effectively cutoff by walls or partitions. Doorways shall be by means of a vestibule providing a two door separation.

23.30.513.3(D) Areas suitably cut off and ventilated.

Replace subsection (D) with:

(D) Areas Suitably Cut Off and Ventilated. Areas adjacent to classified locations in which flammable liquids or vapors are not likely to be released such as offices, stock rooms, electrical control rooms, and other similar locations shall be unclassified where designed with positive air pressure and effectively cutoff by walls. Doorways shall be by means of a vestibule providing a two door separation.

23.30.620.71(A) Motor controllers.

Add the following to the end of the paragraph:

Motor controllers that are recessed mounted in a wall with less than 1-1/4 inch clearance between the back of the cabinet and the inside surface of the wall sheathing shall be protected by 1/16 inch thick steel plate, or equivalent.

23.30.700.19 Multiwire branch circuits.

Add the following exception:

Exception: Existing installations on multiwire branch circuits where retrofit kits or same type replacements are installed, or no more than 6 new luminaires/unit equipment with associated branch wiring are added to each existing circuit.

23.30.702.5 Transfer equipment.

Add the following to the end of the section:

Transfer switches for residential applications which are installed without a permanently installed generator shall be configured to allow installation as a separately derived system (i.e. an additional switched pole for the grounded conductor will be provided in the transfer switch).