# Article 210 of the NEC® - Notes For Code Talk Podcast Episode 9

#### **Branch Circuits**

- The two 20 amp small appliance circuits serving the kitchen, pantry, breakfast room, and dining room shall have no other outlets NEC 210.52 (B)(1)
- Kitchen exhaust hoods, garbage disposals, dishwashers, trash compactors and other motor loads shall not be on the same circuit as either of the two required small appliance branch circuits. NEC 210.52(B)(1)
- Bathroom receptacles shall be supplied by at least one 20-amp circuit that shall have no other outlets. If the circuit serves a single bathroom, the lights in that bathroom may be on the same circuit NEC 210.11(C)(3)
- Range circuits shall be a minimum 40 amp NEC 210.19 (3)
- A general lighting circuit shall be provided for each 3 volt-amperes for every square foot. NEC 220.12
- GFCI protection of receptacles shall be provided in: bathrooms, garages, accessory buildings, outdoors, crawl spaces, unfinished basements, kitchens, dishwashers, within 6 feet of all sinks & bathtub/showers, and laundry areas NEC 210.8
- AFCI protection of all circuits serving outlets (not just receptacles) in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreations rooms, closets, hallways, laundry rooms, and similar rooms NEC 210.12

## **Receptacle Outlets**

- In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom, recreation room, or similar room or area of dwelling units, receptacle outlets shall be installed in accordance with 210.52(A)(1) through (A)(3) NEC 210.52(A)
  - Receptacles shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6 feet from a receptacle outlet
    - Wall space is defined as:
      - Any space 2 feet or more in width
      - The space occupied by fixed panels in exteriors, excluding sliding panels
      - The space afforded by fixed room dividers such as freestanding bar-type counters
      - Receptacle outlets in floors shall not be counted as part of the required number of receptacle outlets unless located within 18 inches of the wall -NEC 201.52(A)(3)
  - Wall Countertop Spaces
    - A receptacle outlet shall be installed at each wall countertop space that is 12 inches or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 inches measured horizontally from a receptacle outlet—NEC 210.52(C)(1)
  - Island Countertop Spaces
    - At least one receptacle outlet shall be installed at each island countertop space with a long dimension 24 inches or greater and a short dimension of 12 inches or greater NEC 210.52(C)(2)
  - Peninsular Countertop Spaces
    - At least one receptacle outlet shall be installed at each peninsular countertop space with a long dimension 24 inches or greater and a short dimension of 12 inches or greater NEC 210.52(C)(3)
  - Separate Spaces
    - Countertop spaces separated by cooktops, refrigerators, or sinks shall be considered as separate counter top spaces and need to comply with requirements of 210.52(C)(1) through (C)(3) NEC 210.52(C)(4)
    - Receptacle Outlet Location. Receptacle outlets shall be located above, but not more than 20 inches above the countertop NEC 210.52(C)(5)

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#### Bathrooms

At least one wall receptacle outlet shall be installed in bathrooms within 3 feet of the
outside edge of each basin (sink). The receptacle outlet shall be located on a wall or
partition that is adjacent to the basin or basin countertop, or installed on the side or face
of the basin cabinet not more than 12 inches below the countertop - NEC 210.52(D)

#### Outdoor Outlets

- O At least one receptacle outlet accessible at grade level and not more than  $6\frac{1}{2}$  feet above grade shall be installed at the front and back of the dwelling NEC 210.52(E)(1)
- o Balconies, Decks, and Porches. Balconies, decks, and porches that are accessible from inside the dwelling unit shall have at least one receptacle outlet installed within the perimeter of the balcony, deck, or porch. The receptacle shall not be located more than 6 ½ feet above the balcony, deck or porch surface. Not required if balconies, decks, or porches are less than 20 square feet NEC 210.52(E)(3)

## Laundry Areas

• At least one receptacle outlet shall be installed for the laundry - NEC 210.52(F)

## • Basements and Garages

At least one receptacle outlet, in addition to those for specific equipment, shall be installed in each basement and in each attached garage, and in detached garages with electric power. Where a portion of the basement is finished into one or more habitable rooms, each separate unfinished portion shall have a receptacle outlet installed - NEC 210.52(G)

#### Hallways

 Hallways of 10 feet or more in length shall have at least one receptacle outlet - NEC 210.52(H)

## **Lighting Outlets Required**

## Dwellings

 At least one wall switch-controlled lighting outlet shall be installed in all habitable rooms, bathrooms, hallways, stairways, attached garages, and detached garages with power - NEC 210.70(A)

#### • Storage or Equipment Spaces

- o For attics, underfloor spaces, utility rooms, and basements, at least one lighting outlet containing a switch or controlled by a wall switch shall be installed. At least one point of control shall be at the usual point of entry to these spaces NEC 210.70(A)(3)
- Closet lights shall conform to NEC 410.16

### • Bathtub and Shower Areas

No parts of cord-connected luminaires, chain-, cable- or cord-suspended luminaires, lighting track, pendants, or ceiling-suspended fans shall be located within a zone measured 3 feet horizontally and 8 feet vertically from the top of the bathtub rim or shower stall threshold. This zone is all encompassing and includes the space directly over the tub or shower stall. Luminaires located within the actual outside dimension of the bathtub or shower to a height of 8 feet vertically from the top of the bathtub rim or shower threshold shall be marked for damp location, or marked for wet location where subject to shower spray - NEC 410.10(E)