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## Major Residential Code Changes for 2020 NEC:

(This list is not inclusive of all changes)

The 2020 NEC will be effective on permits issued as of July 31, 2021

- 1) 210.8 (A). **Dwelling Units.** All 125-volt thru 250-volt receptacles installed in 210.8 (A) (1) thru (A) (11) single phase circuits 150-volts to ground or less shall be GFCI protected.
- 2) 210.8 (A) (5). **Basements.** GFCI protection required throughout the basement, not just unfinished areas of a basement.
- 3) 210.8 (F) **Outdoor Outlets.** All outdoor outlets for dwellings, other than those covered in 210.8 (A) (3), Exception to (3), that are supplied by branch circuits rated 150 volts to ground or less, 50-amp or less, shall have ground fault circuit interrupter protection for personnel. (Example would be an A/C unit)
- 4) 210.12 (D). **Branch Circuit Extensions or Modifications - Dwelling units, Dormitory units, Guest Rooms and Guest Suites.** Where the branch circuit wiring for any areas in 210.12 (A) (B) or (C) is replaced, modified or extended it shall be AFCI protected. The exception for the extensions not over 6ft in length and not including any additional outlets or devices is still applicable.
- 5) 210.52 (C) (2). **Island and Peninsular Countertops and Work Surfaces.** (a) At least one receptacle shall be installed for the first 9sqft or fraction thereof, of the countertop or work surface, and an additional receptacle for each additional 18sqft or fraction thereof. (b) at least one receptacle outlet shall be installed within 2ft of the outer end of a peninsular countertop or work surface. Additional outlets required, shall be permitted to be located as determined by the installer, designer or owner.
- 6) 210.70 (A) (1). **Habitable Rooms.** The change here is that the required wall mounted control device for lighting outlets in habitable rooms must be located near the entrance on a wall. (Already common practice)

- 7) 225.30 (B). **Common Supply Equipment.** Where feeder conductors originate in the same panelboard, switchboard, switchgear, or distribution equipment, and each feeder terminates in a single disconnecting means, not more than six feeders shall be permitted. Where more than one feeder is installed, the disconnects shall be grouped in the same location.
- 8) 230.46. **Effective January 2023,** All pressure connectors and devices for splices or taps installed on service conductors are to be Listed and Marked as "Suitable for use on the line side of the service equipment or equivalent".
- 9) 230.67 (A) thru (D). **Surge Protection.** All services supplying dwelling units shall be provided with a surge-protective device. Must be Type 1 or Type 2 SPD. Applies to service equipment being replaced.
- 10) 230.85. **Emergency Disconnects.** For one and two family dwellings units, service conductors shall terminate in a service rated disconnecting means at a readily accessible location outdoors. Each disconnecting means shall be marked  
"Emergency Disconnect  
Service Disconnect"
- 11) 314.27 (C). **Boxes at Ceiling Suspended Paddle Fan Outlets.** Outlet boxes in the ceilings of habitable rooms in a location acceptable for the installation of a suspended paddle fan shall be either: 1) Listed for the sole support of a suspended paddle fan, or 2) a standard outlet box providing access to structural framing capable of supporting a suspended paddle fan bracket or equivalent.
- 12) 406.5 (G) (1) & (2). **Receptacle Orientation.** (1) Receptacles shall not be installed in a face up position in countertops or work surfaces unless Listed for countertop and work surface applications. (2) Under Sinks. Receptacles shall not be installed in a face up position in the area below a sink.
- 13) 406.9 (C). **Bathtub and Shower Space.** Receptacles shall not be installed within a zone measured 3ft horizontally and 8ft vertically from the top of the tub rim or shower stall threshold. This is all encompassing and shall include the space directly over the tub or shower. **Exception:** In bathrooms with less than the required zone the receptacle(s) shall be permitted to be installed opposite the bathtub or shower stall on the farthest wall within the room.
- 14) 422.16 (B) (2). **Built in Dishwasher and Trash Compactors.** The cord of a dishwasher or trash compactor passing thru an opening shall be protected by a bushing, grommet or other approved means. (Bushing or grommet required)
- 15) 422.16 (B) (4). **Range Hoods and Microwave Oven/Range Hood Combinations.** Range hoods and microwave oven/range hood combinations shall be permitted to be cord and plug connected with flexible cord identified as suitable for the use on range hoods in the manufactures installation instructions of the appliance where all the following conditions are met. It is important to note the receptacle must be supplied by an individual branch circuit and be accessible.
- 16) 445.18 (D). **Emergency Shutdown in One and Two Family Dwelling Units.** For other than cord and plug connected portable generators, an emergency

shutdown device shall be located outside the dwelling unit at a readily accessible location.

- 17) 480.7 (B), (C), & (G). DC Disconnect Methods.** These are new requirements for disconnecting stationary battery systems. (B) specifically for single family and two family dwellings, a disconnect or remote control for a stationary battery system shall be located at a readily accessible location outside the building for emergency use and shall be labeled "Emergency Battery Disconnect". (C) deals with disconnecting means exceeding 240-volts dc, and (G) is specific to the labeling and Identification of Power Sources on the premises.
- 18) 680.21 (C). GFCI Protection.** Outlets supplying all pool motors on branch circuits rated 150 volts or less to ground and 60-amperes or less, single or 3 phase, shall be provided with Class A GFCI protection.
- 19) 680.21 (D). Pool Pump Motor Replacement.** Where a pool pump motor in 680.21 (C) is replaced for maintenance or repair, the replacement pump motor shall be provided with GFCI protection.
- 20) 680.22 (A) (5). Pool Equipment Room.** At least one GFCI protected 125-volt 15 or 20-amp receptacle on a general purpose circuit shall be located within a pool equipment room, and all other receptacles supplied by branch circuits rated 150-volts or less to ground within a pool equipment room shall be GFCI protected.
- 21) 680.22 (E). Other Equipment.** Other equipment with ratings exceeding the low voltage contact limit shall be located at least 5ft horizontally from the inside walls of a pool unless separated from the pool by a solid fence, wall, or other permanent barrier. (Other equipment would include but not be limited to meter sockets, panels, disconnects, a/c units)
- 22) 680.35 (A) thru (G). Storable and Portable Immersion Pools.** This is a new section with all the specific requirements for Storable and Portable Immersion Pools.
- 23) 705.10. Identification of Power Sources.** A label indicating multiple power sources located on the premises is required to be located at each service equipment location or at an approved readily visible location. The plaque or directory shall denote the location of each power source disconnecting means for the building or structure. The plaques or directory shall be marked with the wording: "CAUTION: Multiple Sources of Power". And then list the other sources and their locations. If a diagram is used it must be correctly oriented with respect to the location of each power source disconnecting means.
- 24) 705.11 (A) thru (E). Supply Side Source Connections.** This is a new section splitting out line side taps from load connections of interconnected power sources and has new requirements for conductor size, overcurrent protection, connections, and ground fault protection.
- 25) 705.13. (A) thru (E). Power Control Systems.** New section pertaining to PSC's that limit the current on conductors and busbars and the requirements for monitoring, settings, Overcurrent protection, and access to settings.

- 26)** 705.20. **Disconnecting Means, Source.** This section combines what was 705.20, 705.21, and 705.22 into one sections for the disconnecting means and all the requirements they must comply with.
- 27)** 705.25 (A) thru (C). **Wiring Methods.** New section outlining the wiring methods that can be used (A) General, (B) Flexible Cords and Cables, (C) Multiconductor Cable Assemblies.
- 28)** 705.28 (A) thru (C). **Circuit Sizing and Current.** New section and requirements for determining (A) Maximum Circuit Current, (B) Conductor Ampacity, (C) Neutral conductors.
- 29)** 705.30 (A) thru (D). **Overcurrent Protection.** Revised section with new requirements for overcurrent protection of (A) Circuit and Equipment, (B) Overcurrent Device Ratings, (C) Power Transformers, (D) Generators.
- 30)** 705.32 thru 705.70, revamp of existing sections with deletions and new code sections applied.