



## 2011 NATIONAL ELECTRICAL CODE CHANGES - RESIDENTIAL

The 2011 NEC is expected to be adopted by the State of Colorado in July or August of 2011. Below is a brief list of changes from the 2008 NEC most likely to affect the residential construction industry.

- Article 210.8 now requires that Ground Fault Circuit Interrupters (GFCI's) shall be located in a readily accessible location. Thus GFCI receptacles will not be allowed in ceilings, behind refrigerators, or behind access panels.
- Article 210.12 (B) requires that Arc Fault Circuit Interrupters (AFCI's) be provided to circuits that are being modified or extended. This will require either an AFCI breaker to be installed or an AFCI receptacle to be placed at the first receptacle location of the circuit.
- Article 210.52 (E) (3) requires that all decks which have access from inside the home be provided with a receptacle. In previous codes decks less than 20 square feet were exempt from this requirement.
- Article 210.52 (G) requires any accessory building provided with power to have at least one receptacle.
- Article 210.52 (I) now requires foyers 60 square feet and larger to be provided with receptacles in any wall 3 feet in length or longer. It does not however, require receptacles to be placed so that no point along the floor is greater than 6 feet from a receptacle.
- Article 338.10 (B) (4) (a) now allows type SE Cables that are used as feeders to interior panels or for interior branch circuits to be sized per table 310.15 (B) (7) unless the cable will be embedded in thermal insulation. If embedded, the cable ampacity is limited to the values contained in 60 degree column of table 310.15 (B) (16).
- Several sections were added that address replacement of receptacles. Essentially, any receptacles that are being replaced shall comply with the current requirements. This does not mandate replacement, but results in gradual upgrading of older installations to newer standards.
  - Article 406.4 (D) (4) will require replacement receptacles to have AFCI protection beginning January 1, 2014.
  - Article 406.4 (D) (5) requires replacement receptacles to be tamper resistant if required to be tamper resistant in other parts of the code.
  - Article 406.4 (D) (6) requires replacement receptacles to be weather resistant if required to be weather resistant in other parts of the code.
- Article 406.12 has had exceptions added to it so that tamper resistant receptacles are not required if they are 5.5 feet above the floor, are part of a luminaire or appliance or a dedicated receptacle for an appliance that is not easily moved such as a refrigerator.
- Article 410.16 now gives us required clearances for LED type luminaires located in clothes closets. The clearances are the same for incandescent luminaires in clothes closets.
- Article 424.44 (G) has been expanded to require GFCI protection for electrical floor heating cable in kitchens in addition to bathrooms and hydro-massage bathtub locations.
- Article 590.4 (D) has been changed to require extra-duty in-use covers for temporary pedestals.
- Article 680.73 has had a new sentence added that requires the receptacle for a hydro-massage tub motor to be located so that its face is within direct view and is within 1 foot of the access opening. Also keep in mind that GFCI receptacles shall be installed in a readily accessible location (a location which does not require removal of obstacles for access). The receptacle may be protected by a no-face GFCI installed in a nearby readily accessible location.
- Article 680.74 requires that if a double insulated pump motor is installed for a hydro-massage tub, the bond wire required for the metal piping system is now also required for future replacement motors that may not be double insulated. The 8 AWG solid conductor is required to be tied into the branch circuit grounding conductor supplying the receptacle for the tub.