



MONTGOMERY COUNTY BUILDING REGULATIONS

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CODE ENFORCEMENT POLICY

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Work Affected: Existing 3 Wire Receptacles Affected By Service Equipment Alterations
Code Edition: 2008 National Electrical Code

Sometimes we are faced with alterations to electrical services in existing dwellings where a new main service is installed, and an existing service becomes a sub-panel rather than a main. This policy deals with existing 3 wire circuits in that sub-panel that now must meet different grounding standards. The 2008 NEC states:

250.140 Frames of Ranges and Clothes Dryers.

Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the circuit for these appliances shall be connected to the equipment grounding conductor in the manner specified by 250.134 or 250.138.

Exception: For existing branch circuit installations only where an equipment grounding conductor is not present in the outlet or junction box, the frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the circuit for these appliances shall be permitted to be grounded to the grounded circuit conductor if all the following conditions are met.

- (1) The supply circuit is 120/240-volt, single-phase, 3-wire; or 208Y/120-volt derived from a 3-phase, 4-wire, wye-connected system.*
- (2) The grounded conductor is not smaller than 10 AWG copper or 8 AWG aluminum.*
- (3) The grounded conductor is insulated, or the grounded conductor is uninsulated and part of a Type SE service-entrance cable and the branch circuit originates at the service equipment.*
- (4) Grounding contacts of receptacles furnished as part of the equipment are bonded to the equipment.*

After review and research of this section, we have concluded that Exception No. 3 is a two part statement, separated by a comma, and that one can comply with either part, but does not have to comply with both. Therefore, if the grounded conductor is insulated, it complies, whether it originates at the service or not. Of course one needs to comply with parts 1, 2, and 4 as well.

An example of a complying situation is a 3-wire dryer receptacle wired with Romex and fed from a sub-panel, because the grounded (neutral) conductor is insulated. Note that SE cable does not comply because the grounded conductor is not insulated.