



Oregon

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Building Codes Division Statewide Interpretation

PROGRAM: Electrical Program
SUBJECT: GROUNDING FRAMES OF RANGES AND CLOTHES
DRYERS FROM EXISTING BRANCH CIRCUITS
SOURCE: The 2005 Oregon Electrical Specialty Code
REFERENCE: Section 250.130 and 250.140
DATE OF ISSUE: Re-issue April 1, 2005
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QUESTION: When is it required to replace the branch circuit with one containing an equipment grounding conductor to a range or clothes dryer receptacle in an existing occupancy?

ANALYSIS:

Section 250.140 allows the grounded conductor of existing branch circuit installations to be used also for grounding frames of ranges and clothes dryers. This is permitted where the system is 120/240 volts single phase or 208Y/120 volts using single phase, the branch circuit is #10 copper or #8 aluminum and the circuit originates from service equipment.

Manufacturers are familiar with code requirements and offer either a four-wire cord and plug assembly for new installations or a three-wire cord and plug assembly for existing installations.

It is recommended to replace the branch circuit with a four-wire branch circuit where it is reasonable and practical.

DETERMINATION:

It shall be required to replace the branch circuit to a range or clothes dryer with one containing an equipment grounding conductor under any of the following:

- The new appliance has a nameplate rating greater than the ampere rating of the

existing branch circuit.

- **There is extensive remodeling where the walls are open.**

It shall not be required to replace the branch circuit to a range or clothes dryer with one containing an equipment grounding conductor provided:

- **The new appliance is equipped with a cord and plug assembly suitable for the existing receptacle and the grounding contacts are bonded to the appliance.**
- **Slight remodeling where the branch circuit extension is within 5 feet of the previous receptacle location and it is impractical to reach the panelboard.**
- **There is a service change resulting in the existing panelboard now being used as a sub-panel. The grounded conductor terminal bar of the existing panelboard shall be isolated from the equipment grounding terminal bar and the range and clothes dryer grounded conductor shall be relocated to the grounded conductor terminal bar. That portion of the uninsulated grounded conductor that is used for grounding existing ranges or clothes dryers shall be field insulated at points of access.**