

To: Contractors, Electricians and Homeowner's

From: Edith A. Hampton, Acting Building Code Official

Affective July 1, 2002 **all building** permits issued for new homes or remodeling bedrooms will be required by the Virginia Uniform Statewide Building Code (USBC) to install Arc-Fault Circuit Interrupter Protection. This requirement became effective January 1, 2002.

The National Electrical Code - Section 210-12 Arc Fault Circuit-Interrupter Protection:

- Definition- an arc-fault circuit interrupter is a device intended to provide protection from the effects of arc- faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected.
- Dwelling Unit Bedrooms. All branch circuits that supply 125-volt, single-phase, 15- and 20- Ampere receptacle outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter(s).

This office will continue to use The CABO One and Two Family Dwelling Code/1995 and The National Electrical Code/1996 for reference these changes.

Some General requirement

Kitchens

- A minimum of two dedicated 20-Amps small-appliance branch circuits is required for kitchen receptacles.
- Receptacles outlet should be installed to serve every kitchen countertops space that is 12 inches or more in width and run along a wall. Receptacle outlets shall be installed so that no point along the wall line is more that 24 inches measured horizontally from a receptacle outlet in that space.
- All kitchen receptacles installed to serve the countertop surfaces shall have ground-fault circuit-interrupted protection.
- Separate circuits are needed for built-in **appliances** (i.e. oven, range, dispose, dishwasher, central air conditioner, furnace and water heater).

- One 20-amp circuit is needed for the **laundry** outlet within 6' of the machines. An electric dryer requires an additional 240-volt circuit.

Bathroom

- Receptacle outlets are installed adjacent to and within 36 inches of each basin.
- Bathroom receptacles must be supplied by dedicated 20-A branch circuits that is either dedicated to bathroom receptacle outlets in one or more bathrooms or dedicated to individual bathroom. In other words, the required 20-A circuit(s) may supply only bathroom receptacles in multiple bathrooms or they may supply receptacles and other loads but only in one bathroom.
- All 15- and 20-amp receptacles installed in bathroom shall have ground-fault circuit-interrupter protection.

Outlets

- At least one GFCI outlet is required in an unfinished basement, garages, attic for service equipment, and for outdoor outlets (exceptions include inaccessible outlets like at a garage ceiling or behind a refrigerator).
- Any point along the bottom of a wall (which is 2' or wider) must be within **6'** of an outlet. The 6' distance cannot be measured across a doorway or fireplace. In addition, the outlet must be within 5 1/2' of the floor. This code cuts down on extension cord use, especially across doorways, fireplaces and similar openings.

Switches

- A **light switch** must control lighting in every habitable room, hallway, stairway, or garage. The switch can control either a light fixture or a receptacle into which a lamp is plugged.