



# NEW YORK STATE DEPARTMENT OF STATE

Division of Code Enforcement and Administration  
99 Washington Avenue Albany, New York 12231  
Phone no. (518) 474-4073 [Fax] (518) 486-4487

## MEMORANDUM

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**DATE:** February 3, 2011

**TO:** Regional Staff

**FROM:** Cheryl A. Fischer, P.E.  
Assistant Director for Code Interpretation

**NOTE:** Residential electrical system changes

This is to clarify whether the replacement of an electrical panel box requires the existing breakers to be replaced with arc-fault breakers. **NO.** *Residential Code of New York State* Section E3802.11, Arc-fault-interrupter protection is applicable to **NEW** installations. For instance, there is a new panel box and new additional circuits. Section J407.1, Electrical material (repair), states:

*Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material.*

Section J508.1, Electrical general (alteration-level 1) states:

*Any **alteration** to an existing electrical system shall be made in conformity with the provisions of Chapter R33 through Chapter R42.*

Section J608.1, Electrical general (alteration-level 2), states:

*Any alteration to an existing electrical system relating to work done in any work area shall be made in conformity with the provisions of Chapter R33 through Chapter R42.*

Section J608.2, Increased loads, states:

*Where alterations subject portions of existing electrical systems to increased loads, such portions shall be made to comply with Chapter R33 through Chapter R42.*

Section J608.3, Electrical service, states:

*Service to dwelling units shall be a minimum of 100 ampere, three-wire capacity, and service equipment shall be dead front having no live parts exposed whereby accidental contact could be made. Type "S" fuses shall be installed when fused equipment is used.*

**Exception:** *Existing service of 60 ampere, three-wire capacity, and feeders of 30 ampere or larger two-or three-wire capacity shall be accepted if adequate for the electrical load being served.*

Section J608.4, Ground-fault and arc-fault circuit-interrupter protection, states:

*Ground-fault and arc-fault circuit-interrupter protection shall be provided on **newly installed** receptacle outlets as required by Section RE3802.*

There is no code section that requires the existing circuits to have ground-fault circuit-interrupters, only new circuits. There are configurations where old wiring cannot handle the arc-faults and cause unexpected trips.

This response is limited to the specific question asked and should not be interpreted to give implied approval of any general plans or specifications.

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Number of sheets (including cover sheet) 1.  
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