

SOUTHERN NEVADA REGIONAL INTERPRETATION

Date: August 11, 2021

Code: 2017 National Electrical Code

Article/Code Section: NEC 210.12 Arc-Fault-Circuit-Interceptor Protection.

INTERPRETATION: Arc Fault Circuit Interceptor (AFCI) protection on the following devices may be eliminated on dedicated circuits for specific appliances:

- Washing machines/clothes dryer located in laundry room in single family dwellings
- Dishwashers located in kitchens in single family dwellings;
- Refrigerators located in kitchens in single family dwellings.

This interpretation expires for permit applications submitted after December 31, 2022.

PURPOSE/REASON: Kitchens and Laundry Areas are included in areas that are required to have AFCI protection. Specific appliances operate differently than traditional appliances that are cord and plug connected; washing machines, clothes dryers, dishwashers, and refrigerators have motors that differentiate them from devices that are cord and plug connected in bedrooms, dens, and living rooms. These devices and areas are required to have ground-fault circuit-interrupter (GFCI) protection for personnel. The market moving towards energy efficient appliances appears to have an effect on the ability of the circuit to maintain operational characteristics for arc-fault protection.

As reported by Southern Nevada Home Builders, home builders and several concerned citizens; numerous service calls for nuisance tripping of AFCI breakers in laundry rooms and kitchens in new construction with the probable cause being a relationship between the combination AFCI devices, GFCI devices and higher efficiency appliances.

The Electrical Code Committee of SNBO voted in favor (7-1) of completely eliminating the AFCI project for the entire kitchen and laundry room on 22 JUL 21. This interpretation is more restrictive than the committee decision. Given the rapid change in both energy efficiency technology, the 3-year code cycle and SNBO's decision not to adopt the current model codes, it is likely that new technology or code applications may support a re-consideration of this interpretation.

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