

Form for Proposals on NFPA National Electrical Code

NFPA Document and Reference: **NFPA 70** 210-12 (c) (new paragraph)

SUBMITTER INFORMATION:

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Representing: U.S. Consumer Product Safety Country: U.S.A.
~~Commission staff~~
Please indicate organization represented (if any) Date: 09/07/1999

FOR EACH PROPOSAL, PLEASE COMPLETE EACH OF THE FOLLOWING:

- 1.a) Document Title: **National Electrical Code** NFPA No.: **70** Year: **1999**
b) Article/Section: 210-12 (c) (new paragraph)
2. Proposal recommends: (Check one): ☒ new text ☐ revised text ☐ deleted text
3. Proposal (include proposed new or revised wording, or identification of wording to be deleted):
Add new paragraph to Section 210-12 as follows:
(c) Lighting and Appliance Branch Circuits. Each existing 125-volt, single-phase, 15- and 20-ampere lighting and appliance branch circuit shall be individually protected by an arc-fault circuit interrupter when the service equipment is replaced.
FPN: See Section 230-XX (Editorial note: Section 230-XX is a proposed new section, submitted separately to the CMP for Article 230, to complement this proposed new paragraph (c) to Section 210-12. For information purposes, the proposed new Section 230-XX reads as follows: 230-XX. Replacement of Service Equipment in Dwelling Units. When service equipment in dwelling units is replaced, each existing 125-volt, single-phase, 15- and 20-ampere lighting and appliance branch circuit shall be individually protected by an arc-fault circuit interrupter.)
4. Statement of Problem and Substantiation for Proposal:
According to a study conducted by the U.S. Consumer Product Safety Commission (CPSC), "Residential Electrical Distribution System Fires", Smith & McCoskrie, 1987, fires originating in branch circuit wiring predominately occurred in dwellings over 20 years old, with the highest rates of fires occurring in dwellings over 40 years old. Older dwellings are frequently upgraded with replacement service equipment to accomodate an increase in the service rating to supply additional appliance and equipment loads. However, often times, the existing lighting and appliance branch circuits in dwelling units are not replaced when the service is upgraded, due to the increased cost, and/or the inability to evaluate the remaining life expectancy of the branch circuit conductors. The branch circuit conductors are frequently located in concealed spaces surrounded with thermal insulation, and could be in a deteriorated condition at the time the service is upgraded. This proposal is intended to remedy this situation with the addition of arc-fault circuit interruption (AFCI) protection against fire hazard conditions for the existing branch circuit conductors.
5. ☒ This Proposal is original material.
☐ This Proposal is not original material; its source (if known) is as follows: