U.S. Consumer Product Safety Commission
LOG OF MEETING

SUBJECT: Project sponsored by the Fire Protection Research Foundation (FPRF) to document the effects of aging on the safety of residential electrical systems.

DATE OF MEETING: April 22, 2003

LOG ENTRY SOURCE: William H. King, Jr., ES

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LOCATION: 1615 L Street, N.W., Suite 1000, Washington, DC

CPSC ATTENDEE(S):
William H. King, Jr., ES
Douglas Lee, ES

NON-CPSC ATTENDEE(S):
Stephen Hanly, Fire Protection Research Foundation (FPRF)
Rick Mulhaupt, FPRF
John Biechman, National Fire Protection Association (NFPA)
Carin Bernstiel, National Electrical Manufacturers Association

CPSA § 6(b)(1) Cleared
X No Mfrs/PrvtLblrs or Products Identified
___ Excepted by_____
___ Firms Notified,
___ Comments Processed.
4-23-03
AB

SUMMARY OF MEETING: The FPRF members and the CPSC staff members reviewed the plans for the initial phase of the research. The need for additional sponsors of the research was discussed. Additional partners from federal agencies and major testing laboratories will be explored by both CPSC staff,

NFPA, and the FPRF. The next meeting will be held by teleconference around the end of May 2003. The CPSC staff reported that CPSC management has approved the concept of a joint project where CPSC will be a particpant in the research plan submitted by FPRF. USFA/FEMA is also a participant. The work will commence upon completing contractual arrangements.

Attached is the tentative concept for the project.

Residential Electrical System Aging Research Project

Tentative Concept

Background
Concern has been expressed in the electrical community regarding the aging of electrical systems in residential occupancies, possibly resulting in fires.

A question not yet fully answered is: "Why is there a residential electrical fire problem in the United States, even though we have such a good code?" Among the potential answers may be that electrical components, like any product, age over time. Coupled with this, residential electrical systems are seldom inspected after original installation. This project hopes to address this issue in two ways: It intends to survey the condition of representative samples of systems installed in different eras. And it intends to work with one or more Authorities Having Jurisdiction to more extensively document components and systems involved at the point of origin of harmful fires. This project will provide critical information to code writers – especially for NFPA 73 and the NEC® – as well as AHJs, electrical equipment manufacturers, installers, property owners, and insurers.

Goal
Characterize the condition of various age cohorts of residential electrical systems by surveying a representative sample of actual installed systems; and document how aging may relate to residential electrical fire experience.

Scope and *M.O.*
The survey: Actual installed residential electrical system components from the service point to the outlet. Residences of various ages will be selected, tentatively organized into 10-year age cohorts, and their conditions documented in a database. Alterations and the date of alteration also will be documented. Selected representative samples may be laboratory tested and analyzed.

The investigations: More detailed investigation information than is commonly collected today; e.g., a report that includes the actual or estimated age of components/system believed to be involved at a residential fire's point of origin. This will be obtained from a brief questionnaire completed by the fire investigator, or by the fire investigator and an electrical inspector together. The Foundation will collaborate with an AHJ, such as a local government or federal agency, to develop and implement the program. A database will be developed.

There will be a literature review of previous related studies. Data collected in this project will be analyzed, and technical reports published.

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