LOG OF MEETING

SUBJECT: CPSC electrical and fire-related activities in general

DATE: February 22, 2000 **PLACE:** Fox Hollow Inn
Woodbury, NY

DATE OF LOG ENTRY: February 29, 2000

LOG ENTRY SOURCE: William H. King, Jr., Engineering Sciences

CPSC PARTICIPANT: William H. King, Jr., Engineering Sciences

NON-CPSC PARTICIPANTS:

William O'Grady, Underwriters Laboratories Inc. (UL)
Walter Skuggevig, UL
Richard Berman, UL
Bob Davidson, UL
Dave Dini, UL
Richard Wagner, UL
Robert DellaValle, UL
Roland Riegel, UL
Edward Joseph, UL
Andrew Vourlos, UL
Mario Xerri, UL
Robert Schlegal, Jr., UL
John Smith, UL
Darrin Conlon, UL
And UL attendees at the UL PE Awards Dinner

SUMMARY:

Attached is the material presented by Mr. King at this meeting.

U.S. Consumer Product Safety Commission
www.cpsc.gov

Presentation at the Engineering Dinner
Underwriters Laboratories Inc.
February 22, 2000

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CPSC - FY 2000

- Independent Federal regulatory agency
- Total Budget - $49 million
- About 480 staff (incl. 40 engineers)
  - Headquarters 310 (Bethesda, MD)
  - Field 137
  - Laboratory 33 (Gaithersburg, MD)

PRODUCT JURISDICTION
15,000 TYPES OF PRODUCTS
Most products found in the home, EXCEPT:

- Tobacco products
- Medical devices
- Food and drugs
- Motor vehicles
- Boats

- Aircraft
- Firearms
- Pesticides
- Cosmetics
- Workplace products

CPSC FUNCTIONS

- Collect & Analyze Data
- Perform Applied Research
- Encourage Voluntary Standards
- Require Performance Safety Standards
- Require Safety Labeling
- Require Special Packaging
- Enforce regulations
- Recall Defective Products
- Ban Hazardous Products
- Inform Consumers

CPSC USE OF DATA

- Define size of problem
  - priorities, project decisions
- Characterize problems
  - help design effective intervention
- Justify regulatory action
  - reasonably, legally
- Support recalls

Some Past CPSC Electrical Activities

- Household Wiring
- Electric Blankets
- TV Receivers
- Portable Lamps
- Countertop Cooking Appliances (coffeemakers)
- Ground-Fault Circuit-Interrupters
- Extension Cords
- Christmas Lights
- Portable Electric Heaters
- Electric Toys
- Heat Tapes
- Smoke Alarms
- Hair Dryers

Current CPSC Electrical Projects

- Plastic Appliance Enclosures/Components
- Range Cooking Fires
- CO Alarms
- Fixed Room Heaters
- Table Saws
- Portable Fans
- Battery-operated ride-on toys
- Torchiere Floor Lamps
- Arc Fault Circuit Interrupters (AFCI)
- Countertop Cooking Appliances (toasters, toaster-ovens, deep fat fryers)
- Clothes Dryers
- National Electrical Code
- Shock prevention devices

PORTABLE LIGHTING (HALOGEN)

- 3,600 lamp and light bulb-related fires, 30 deaths in 1996 (all lamps and bulbs, including halogen)
- Many reports involve heat from 300 and 500 watt halogen tube bulbs used in torchiere-style (open top) lamps that ignite nearby combustibles
- Approach: change voluntary standards

PORTABLE LIGHTING, CON'T

- UL standard upgrades
  - drape test
  - wattage limited to 300 watts
  - protective guard
  - tipover test
  - marking
- Free protective grill offered for the 40 million lamps in consumer's hands

PLASTIC APPLIANCE ENCLOSURES

- Thousands of portable appliance fires reported each year
  - E.G., fans, nursery monitors, humidifiers, coffeemakers,, irons, others
- Internal components fail and ignite non-FR plastic enclosures
- UL 746C permits non-FR enclosures, if internal live parts meets insulation spec
- CPSC assessed enclosure fire performance in 1997/98 - multiple product/materials tests
- UL Plastics Flammability Ad Hoc Group formed
- Modifications to UL standards in process

ARC-FAULT CIRCUIT-INTERRUPTERS

- New technology to address arcing faults
  - Line-to-line, broken wire
- Tested in 1997-98 to draft UL standard - work really well!
- Introduced into the *National Electrical Code* for 2002 edition

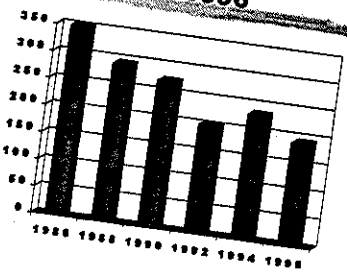
COOKING RANGE FIRES

- 85,000 fires, 300 deaths in 1996
  - Number one consumer product cause of residential fires
- About 3/4 of fires involved ignition of cooking materials
- Goal is to prevent fires through advanced pre-fire detection technology
- Approach is to identify nature of physical and chemical activity associated with overheating of foods

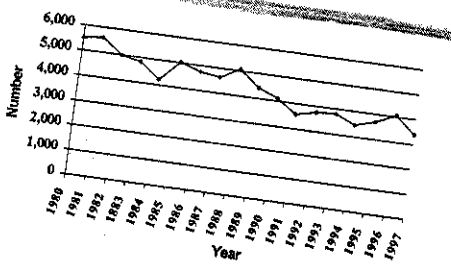
COOKING RANGE FIRES, CON'T

- Tests conducted at NIST and CPSC to identify pre-ignition signatures and evaluate possible sensing mechanisms
- Demonstrated prototype systems, encouraging sensor development, promoting voluntary standards to incorporate sensor requirements
- Working with USFA, NIST, AHAM

Estimated Electrocutions Involving Consumer Products, 1986-1996



Estimated Residential Structure Fire Deaths, 1980-1997



Source: National Fire Protection Association