

U.S. Consumer Product Safety Commission
LOG OF MEETING

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SUBJECT: Electrical Safety Systems, a workshop sponsored by the National Institute of Standards and Technology

DATE OF MEETING: March 26-30, 2001

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

DATE OF LOG ENTRY: April 11, 2001

LOCATION: National Institute of Standards & Technology (NIST)

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

NON-CPSC ATTENDEE(S):

Belinda Collins, National Institute of Standards & Technology (NIST)

Ray Jones, Electrical Safety Consulting Services

Mark Earley, National Fire Protection Association

Jane Schweiker, American National Standards Institute (ANSI)

Gordon Gillerman, Underwriters Laboratories Inc. (UL)

Frank Kitzantides, National Electrical Manufacturers Association

Gary Kushnier, ANSI

Len Frier, MET Laboratories, Inc.

Joan Sterling, Intertek Testing Services (ITS)

Paul Molinski, ITS

Larry Brown, International Code Council

Phil Cox, International Association of Electrical Inspectors

Gene Eckhart, National Electrical Manufacturers Association

Robert Pollock, UL

Walter Leight, NIST

Christine Devaux, NIST

and attendees at the NIST workshop on electrical safety systems

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SUMMARY OF MEETING: Mr. King attended the NIST workshop. A copy of the agenda is attached. A copy of the materials presented by Mr. King is also attached.

DRAFT Schedule

Electrical Safety Systems in the Asia-Pacific 26-30 March 2001

Monday, 26 March 2001 Administration Bldg. 101, Lecture Room - B

OPENING

- 8:00 AM Bus pick-up from Hotel
- 8:45-8:55 AM Administrative Needs
- 8:55-9:30 AM Welcome and Introductions

ELECTRICAL INSTALLATION CODES

- 9:30-10:45 AM Historical Perspective of Electrical Safety Systems
Ray Jones, Principal Consultant
Electrical Safety Consulting Services
- Insurance
 - Building Codes
 - Contractors' Use of Electrical Codes
- 10:45-11:00 AM BREAK - All refreshments are provided by the Institute of Electrical and Electronics Engineers (IEEE)
- 11:00-11:15 AM Group Photo – NIST Lobby
- 11:15 AM Depart for Restaurant
- 11:30 AM-1:00 PM Welcome Lunch - Hosted by Intertek Testing Services (ITS)
- 1:00 PM Return to NIST
- Electrical Codes in the Invited Economies**
Moderator: Mark W. Earley, Assistant Vice President Engineering
National Fire Protection Association, International (NFPA)
- 1:30-1:50 PM Australia
- 1:50-2:10 PM Hong Kong, China

2:10-2:30 PM	New Zealand Raymond Barbara, General Manager Electrical Contractors Association of New Zealand (ECANZ)
2:30-2:50 PM	Japan
2:50-3:10 PM	Republic of Korea
3:10- 3:30 PM	Taiwan Cheng-Chang Lee, Project Engineer Energy Commission, Ministry of Economic Affairs
3:30-3:50 PM	U.S. Mark Earley
3:50-4:15 PM	BREAK
4:15-5:00 PM	<u>Panel Discussion and Dialogue</u> Moderator: Mark Earley
5:00 PM	Depart for Hotel

Tuesday, 27 March 2001 Administration Bldg. 101, Lecture Room - B

8:00 AM Bus pick-up from Hotel

ELECTRICAL PRODUCT STANDARDS

8:45-10:00 AM Historical Perspective on Standards Development
Jane Schweiker, Director Government and Organization Relations
American National Standards Institute (ANSI)

Gordon Gillerman, Manager, Governmental Affairs
Underwriters Laboratories, Inc. (UL)

Frank Kitzantides, Vice President, Engineering
National Electrical Manufacturers Association (NEMA)

Standards Development in the Invited Economies

Moderator: Gary Kushnier, Vice President for International
Affairs, American National Standards Institute (ANSI)

10:00-10:20 AM Republic of Korea
Yun Soo Park, Deputy Director, Product Safety Division

Korean Agency for Technology and Standards (KATS)

10:20-10:40 AM New Zealand
Peter J. Morfee, Principal Technical Advisor
Ministry of Economic Development

10:40-11:00 AM BREAK

11:00-11:20 AM Taiwan
Jeff M. T. Chen, Executive Engineer
Bureau of Standards, Metrology and Inspection

11:20-11:40 AM Hong Kong, China

11:40AM -12:00 PM Japan

12:00 -12:20 PM Australia
James Galloway
Australian Electrical and Electronic Manufacturers'
Association, Ltd.

12:20-12:40 PM U.S.
Frank Kitzantides

12:40-2:00 PM LUNCH – NIST Cafeteria

2:00-3:00 PM Panel Discussion and Dialogue
Moderator: Gary Kushnier

3:00-4:00 PM Discussion: Collaboration in International Standards Development
Moderator: Gary Kushnier

4:00-5:00 PM Ground Fault Circuit Interrupters (GFCI):
A Practical Example of How Standards Can Affect Safety
William King, Chief Engineer for Electrical and Fire Safety
Consumer Product Safety Commission (CPSC)

5:00 PM Depart for Reception

6:00 PM Reception - Hosted by the National Electrical Manufacturers
Association (NEMA)
Rosslyn, Virginia

Wednesday, 28 March 2001 Administration Bldg. 101, Lecture Room - B

8:00 AM Bus pick up from hotel

ELECTRICAL PRODUCT TESTING AND CERTIFICATION

8:45-10:00 AM Accreditation and Certification Schemes

Leonard Frier, Director
MET Laboratories, Inc (MET)

Joan E. Sterling, Director, Government Relations
Intertek Testing Services (ITS)

Product Testing and Certification in the Invited Economies

Moderator: Lee Herron, Vice-President
FCI Connectors

10:00 – 10:15 AM BREAK

10:15-10:35AM Japan

10:35-10:55 AM Taiwan
Jeff M. T. Chen

10:55-11:15 AM Australia
Helen Liddy, International Projects Manager
National Association of Testing Authorities (NATA), Australia

11:15-11:35 AM Republic of Korea
Kyung-Man Lee, Director, Quality Certification Center
Korea Testing Laboratory

11:35-11:55 AM Hong Kong, China

11:55 AM-12:15 PM New Zealand
Graham Moffat, Principal Technical Advisor
PDL Industries Limited

12:15-12:35 PM U.S.
Gordon Gillerman

12:35-1:30 PM LUNCH- NIST Cafeteria

1:30-2:30 PM Panel Discussion and Dialogue
Moderator: Lee Herron

9:55-10:15 AM Japan
10:15-10:35 AM U.S.
Phil Cox
10:35-10:50 AM BREAK
10:50-11:35 AM Panel Discussion and Dialogue
Moderator: Phil Cox
11:35 AM-12:00 PM Site Visit Preparation
12:00-1:00 PM LUNCH – NIST cafeteria
1:00 PM Depart for Construction Site Visit
1:30-4:30 PM SITE VISIT
4:30 PM Depart for Hotel
6:30 PM Farewell Dinner - Hosted by the National Fire Protection
Association (NFPA) and Underwriters Laboratories, Inc. (UL)

Friday, 30 March 2001 Administration Bldg. 101, Lecture Room - B

8:15 AM Bus pick-up from hotel

WRAP UP

9:00-12:30 AM Participant Forum and Discussion
Moderator: Gene Eckhart, Director, Global Standardization
Programs, National Electrical Manufacturers Association (NEMA)

- Country Presentations of Future Trends and Expectations
- Greater regional cooperation in the electrical safety area
- Action items

12:30 PM Departure

U.S. CONSUMER PRODUCT SAFETY COMMISSION



Ground-Fault Circuit-Interrupters (GFCIs) A Practical Example of How Standards Can Affect Safety

William H. King, Jr.

March 27, 2001

CPSC HISTORY

- Established in 1973 under the Consumer Product Safety Act
- Independent Federal regulatory agency
- Three Commissioners

CPSC - 2001

- Total Budget - \$52 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 | ■ Aircraft |
| ■ Medical devices | ■ Firearms |
| ■ Food and drugs | ■ Pesticides |
| ■ Motor vehicles | ■ Cosmetics |
| ■ Boats | ■ 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**

CURRENT ELEC. PROJECTS

- **Clothes Dryers**
- **Plastic Appliance Housings**
- **Range Cooking Fires**
- **Toaster-Ovens**
- **Fixed Room Heaters**
- **Portable Fans**
- **Incandescent Torchiere Lamps**
- **GFCIs**
- **Arc Fault Circuit Interrupters (AFCIs)**
- **Home Wiring Fire Hazards**
- **Battery-Operated Ride-On Toys**

GFCIs

■ Electrocutation Deaths Related to Consumer Products

- 1983: 400, 1.7 per million U.S. population
- 1997: 190, 0.71 per million U.S. population
- Possible reasons for reduction include:
GFCIs, double insulation, improved grounding, improved education, formalized corrective actions

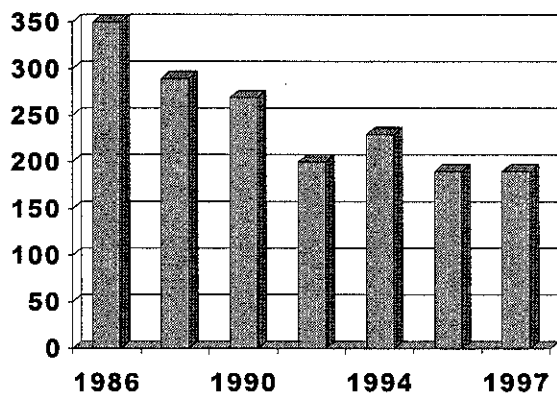
GFCIs

- 1971 *National Electrical Code (NEC)*
 - Introduction of GFCI requirements
 - outdoor receptacles of dwellings
- 1975 *NEC*: bathroom receptacles
- 1978 *NEC*: garage receptacles
- 1987 *NEC*: kitchens, basements

GFCIs

- Other GFCI applications required by Standards and Codes
 - Portable high-pressure spray washers
 - Spas and hot tubs
 - Around swimming pools
- Future of GFCIs
 - enhanced features
 - new applications, upgraded standards, further reduction of electrocutions

Estimated Electrocutions Involving Consumer Products, 1986-1997



Contacting CPSC

www.cpsc.gov

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