L O G O F M E E T I N G

SUBJECT: Leakage Current Protected Electric Cords

DATE: May 1, 1996 **PLACE:** Room 612
East West Towers

DATE OF LOG ENTRY: May 6, 1996

SOURCE OF LOG ENTRY: William H. King, Jr., ESEE

CPSC PARTICIPANTS:

William H. King, Jr., ESEE
Ed Krawiec, ESEE
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NON-CPSC PARTICIPANTS:

Robert Wiggins, Technology Research Corporation
Frank Brugner, Technology Research Corporation
Maureen Cislo, Product Safety Letter

SUMMARY:

At the request of the Technology Research Corporation, CPSC electrical engineering staff met with company representatives to discuss the company's new leakage current protected electric cords.

Mr. Brugner gave a brief technical overview of the construction of the product. Each line conductor in the specially fabricated cord has a metal shield. The shields are connected to the center of an across-the-line voltage divider network. A ground-fault circuit-interrupter (GFCI) or an appliance leakage current interrupter (ALCI) is built into the plug at the power supply end of the cord. Any conduction above the GFCI/ALCI trip level between a line conductor and the shield will cause the GFCI/ALCI to open the circuit to protect the cord. The protected cord also provides a level of shock protection for appliances connected to the cord.

The Technology Research Corporation (TRC) product provides a cord that is designed to prevent cord fires by detecting pre-fire, pre-arc conditions. The product comes in various cord lengths and wire gauges. It is fabricated into either extension cords or power supply cords for permanent attachment to an appliance. The company has received listing of the product by Underwriters Laboratories Inc.

The company representatives were interested in receiving technical assistance from the CPSC staff with regard to potential

applications for the new product line. Mr. King suggested that TRC consider applications that would benefit most from having a protected cord based on hazard information. He suggested that TRC consider applications such as electric outlet strips used with home entertainment and personal computer equipment, carts used in schools, nursing homes and health care establishments, and rental electrical equipment as possible candidates. Mr. King suggested that TRC might want to get more involved in electrical codes and standards work where they could advocate appropriate upgrading of power supply and extension cord requirements. CPSC technical staff would consider commenting on specific proposals for voluntary standards improvements as part of the on-going activities of the CPSC Electrical/Power Voluntary Standards Project.