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**LOG OF MEETING  
DIRECTORATE OF ENGINEERING SCIENCES**

SUBJECT: Heat Tape Safety Measures Study by Underwriters Laboratories

DATE OF MEETING: June 13, 1994

PLACE OF MEETING: CPSC Engineering Laboratories

LOG ENTRY SOURCE: Erlinda M. Edwards, ESEE *JME*

COMMISSION ATTENDEES:

Bob Northedge, ESEE

Nicholas Mogan, ESEE

Dennis McCoskrie, ESEE

Erlinda M. Edwards, ESEE

NON-COMMISSION ATTENDEES:

Bob Hart, Heron Cable

Edward F. Gerwin, Jr., Winston & Strawn

James R. Becker, Nichols, Bergere & Zauzig, PC

Roberta A. Dolos, Whitman & Szczekowski Reporting Service, Inc.

SUMMARY OF MEETING:

CPSC staff indicated that the purpose of the meeting was to discuss the Heat Tape Safety Measures Study performed by Underwriters Laboratories (UL), including tests performed and results obtained. The study consisted of tests on various types of residential heat tapes available on the market. CPSC wanted to evaluate the effectiveness of certain safety remedies in preventing fire hazards.

CPSC staff explained that heat tape failures are dependent upon conditions and construction of the heat tape: construction:

Self-Regulating Type: The most common failure is penetration of the cable by moisture, particularly salt water, resulting in a "wet fire."

Resistance Type: A typical failure can be caused by cable overwrap which results in overheating and subsequent development of a short. In shielded cable, deterioration of insulation may lead to a short between heater wire and shield. In turn, this may result in arcing and ignition of nearby flammable materials.

Effects of safety features were examined for five fault conditions.

CPSC staff indicated that UL is developing a comprehensive standard for heat tapes, which consolidates the requirements from previous standards. At the same time, harmony with the Canadian standard is being pursued. CPSC staff would like the UL standard to guarantee the current safety quality of heat tapes now available on the market.

CPSC staff stated that 60 percent of documented fires involving heat tapes occur in mobile homes. It is expected that misinstallations of heat tapes will continue to occur, maintaining the need for ground-fault protection. However, regulation of mobile homes falls under Housing and Urban Development (HUD), and HUD currently prohibits the installation of GFCIs in the heat tape outlet. Manufactured Housing, Construction and Safety Standards (MHCSS) works with and makes recommendations to HUD. It is hoped that, together, MHCSS and CPSC can influence HUD to change that policy.

In response to a question from Mr. Gerwin regarding the briefing package schedule, staff indicated that a briefing package to the Commission will be submitted to upper management for review and approval by the end of the month. However, it is not known when it would actually be sent to the Commission or when the Commission would likely be briefed on the Project. Once the briefing package is approved, it is available to the public.

The remainder of the meeting was closed.