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

SUBJECT: Electrical Wiring Methods Employed by the Habitat for Humanity International

DATE: September 24, 1994 **PLACE:** Charlotte, NC

DATE OF LOG ENTRY: October 3, 1994

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

CPSC PARTICIPANTS: William H. King, Jr., ESEE
Allen Dobbins, Charlotte Office

NON-CPSC PARTICIPANTS:
Bob Wydra, Habitat for Humanity Int'l
Pat Wydra, Habitat for Humanity Int'l

SUMMARY:

Mr. King was invited to meet with volunteers on several housing construction sites of the Habitat for Humanity International in Charlotte, NC and participate as a volunteer to learn about the electrical wiring methods used by this organization. In this regard, Mr. King was referred to Bob Wydra, electrical consultant to Habitat for Humanity International (HFHI) department of construction resources. Mr. Wydra introduced Mr. King to the wiring procedures used by HFHI by showing and explaining in a hands-on fashion.

The basic wiring installation method follows the National Electrical Code (NEC). Certain practices go beyond that required by the NEC. For example, all residences are provided with outdoor security lighting. In addition, each bedroom is provided with a ceiling lighting fixture installed at an outlet box capable of supporting a ceiling (paddle) fan (although no fan is provided as part of the original construction). No split-circuit receptacles are used. A multi-wire branch circuit is provided in the kitchen for future electrical hook-up of a dishwasher and garbage disposal. These appliances are not provided as part of the original construction.

Wiring in the attic is routed near the eaves whenever possible to keep the attic area available for storage space.

Electrical service to a residence is provided by underground cable from the utility company instead of overhead wires, even though overhead wires are used in the neighborhood. The outside heat pump unit is located in the rear yard as opposed to the side of the building when the distance from the house to the lot line on the side is below a minimum. This is done to minimize noise between adjacent buildings.

After observing a home being wired up to the point of completing the rough-in phase, the level of workmanship appeared comparable to that of a professional contractor.

Mr. King also witnessed an older home in the process of being rehabilitated. The home was selected for rehabilitation rather than demolition because it had architectural and structural features that warranted salvaging. In the case of the house examined, the electrical wiring was too old and too limited to keep in service. The home had a knob-and-tube wiring system. A new wiring system is to be installed using nonmetallic-sheathed cable.

Mr. Wydra expressed an interest in the work of the Home Electrical System Fires Project with regard to the identification of cost-effective alternative wiring methods and new technological safety devices that could protect existing wiring systems from potential fire hazards. He indicated that HFHI was interested in possibly applying these techniques as part of their quest to provide affordable housing to those in need. Mr. King indicated that he would keep Mr. Wydra informed of developments in this area.