

LOG OF MEETING

CPSC & (b)(1) Cleared  
No Mfrs. Privileged  
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Firms Notified  
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**SUBJECT:** Flame Retardant Plastics for Electrical Product Enclosures

**DATE:** March 5, 1997

**PLACE:** Room 518  
East West Towers

**DATE OF LOG ENTRY:** March 12, 1997

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

**CPSC PARTICIPANTS:**

William H. King, Jr., ESEE  
Hammad Malik, ESEE  
James Hoebel, ES

**NON-CPSC PARTICIPANTS:**

Russell C. Kidder, Fire Retardant Chemicals Association  
Michael Breza, M.A. Hanna Company  
Peter A. G. Whitman, Ferro Corporation  
Debi Q. Richardson, The Society of the Plastics Ind., Inc.  
Wayne Morris, Assoc. of Home Appliance Mfrs.  
Sam Cristy, Washington Business Information, Inc.

**SUMMARY:**

Mr. Kidder requested the meeting to acquaint the CPSC technical staff with fire retardant chemicals and their application in thermoplastic enclosures or housings for electrical products. Mr. Kidder brought along two industry experts: Mr. Breza, representing a manufacturer of thermoplastic housings for electrical appliances, and Mr. Whitman, representing a manufacturer of flame retardant chemicals used by manufacturers of thermoplastic housings to make their housings resistant to ignition.

Mr. Kidder provided a brief explanation of the Fire Retardant Chemicals Association. He described the association as an organization whose members include both fabricators of plastic parts, including plastic housings for electrical products, and companies that provide flame retardant chemicals such as antimony oxide.

Mr. Breza discussed technical and economic points related to plastic enclosure materials. He indicated that materials which are fabricated into molded housings to meet a 94HB rating (non-flame retardant) cost in the range of 0.35-0.80 cents per pound. For a 94V2 rating (flame retardant), \$1.10-1.50 per pound. For a 94V0 rating (flame retardant), \$1.50-\$1.90 per pound. Mr. Breza indicated that certain portable household appliances, such as

coffeemakers with thermoplastic housings, could use up to two pounds of material. Mr. Breza further indicated that certain recently-improved safety standards, such as the new edition of the UL standard for holiday lights, are requiring flame retardant materials in certain applications.

Messrs. Breza and Whitman indicated that today's commercially available flame retardant plastics maintain their flame retardant properties for the life of the electric product and do not leach out over time. The gentlemen further pointed out that using flame retardant thermoplastics may involve some manufacturing changes for molders of the housings. Materials rated 94V0, for example, have different flow characteristics during the molding process, and may need molding equipment more tolerant to corrosion. They noted, however, that there are no significant technological problems associated with manufacturing flame retardant housings for electrical products.

They also indicated that the toxicity of a flame retardant housing in a fire situation does not add to the overall risk of injury over a non-flame retardant housing, and that flame retardant thermoplastics for electrical product enclosures do not present a significant environmental issue.

Mr. King thanked the Fire Retardant Chemicals Association for meeting with the CPSC staff.