

**U.S. Consumer Product Safety Commission
LOG OF MEETING**

SUBJECT: Association of Home Appliance Manufacturers (AHAM) Safety Standards Activities Update

DATE OF MEETING: December 18, 2019

LOG ENTRY SOURCE: Andrew Trotta, Directorate for Engineering Sciences (ES)

DATE OF LOG ENTRY: January 16, 2020

LOCATION: U.S. Consumer Product Safety Commission National Product Testing and Evaluation Center, Rockville, MD

CPSC ATTENDEE(S):

Arthur Lee, ES

Doug Lee, Office of Hazard Identification and Reduction (EXHR)

Scott Ayers, EXHR

Jay Kadiwala, ES

Yeon Kim, ES

Huy Le, ES

Anna Luo, ES

Andrew Trotta, ES

Patricia Edwards, EXHR

NON-CPSC ATTENDEE(S):

Randy Cooper, AHAM

Djed Mouada, AHAM

John Park, AHAM

Jenn Cleary, AHAM, by phone

SUMMARY OF MEETING:

AHAM staff met with CPSC staff to present the status of safety standards activities that they have been pursuing to improve the safety of large and small appliances. AHAM initiated these efforts in earnest starting in 2013 and have been updating CPSC staff periodically on the progress of their work, typically twice a year. The previous meeting was in April 2019.

Mr. Cooper presented an update on AHAM's work and strategy on connected products, portable appliances, batteries, floor care products and major appliances. He indicated that their Internet of Things (IoT) strategy include three areas of emphasis: safety, security and privacy. Their safety focus is on unintended operation. Mr. Cooper also stated that they are participating in discussions for Underwriters Laboratories (UL) 5500 – *Remote Software Updates* as it relates to ranges, microwave cooking appliances, dishwashers and motor-operated food-preparing machines. They also continue to work

on the cyber safety and privacy aspects of IoT appliances; Mr. Cooper reported that there is a lot of activity both at the federal and government level in regulations. Other efforts include a set of guidelines developed along with CTIA and a report from UL mapping out global requirements.

Mr. Cooper indicated that AHAM is participating in efforts to harmonize 10 UL standards with International Electrotechnical Commission (IEC) standards. For motor-operated food preparing machines, there are 12 topics on the proposal list in addition to adding a reference to UL 5500. For UL 1026 (electric cooking and food-serving appliances), there are new proposals on electric pressure and sous vide cookers, and revisions to address touch controls as they are more susceptible to unintentional activation and electromagnetic interference. For coffeemakers and brewing appliances, a new proposal is being submitted for kettles to align with the IEC 60335-2-15 Clause 15.102 spill requirements (UL 1082 does not have a kettle base spill test that matches this). For room heaters, AHAM along with CPSC staff await further action from UL on the formation of a working group to review CPSC staff recommendations to address hyperthermia incidents from the use of portable heaters in small spaces; AHAM indicated they have an informational brochure on these types of incidents.

Regarding cordless and robotic vacuums with Li-ion batteries, there is an AHAM Task Force focusing on UL 1017 and UL 2595 for end-product requirements. AHAM is planning a battery training seminar for spring 2020 and requested CPSC staff participation to present their best manufacturing practices for safe integration of batteries into consumer products. Topics being prepared for STP submittal include:

- Definitions related to Robotic Floor Cleaners (RFCs)
- Adding a section for automatic battery-powered RFCs
- Identifying additional safety-critical functions
- Updating warnings
- Developing impact energy requirements
- Addressing fall and trip hazards
- Optical sensors

For major appliances, AHAM has several proposals under consideration by the Technical Harmonization Committee for UL 60335-2-24 to align IEC methods with historical UL approaches. For home comfort appliances (air conditioners/dehumidifiers) under UL 60335-2-40, AHAM has submitted proposals to align the standard with historical UL approaches in UL 484 and to address flammable refrigerants. For ranges, AHAM proposals to the standard for gas-fueled ranges included four items that are in UL 858 (wet cleaning test, redundant line breaks, glowing connection test and electronic controls) were published in November 2018 to become effective 11/30/2021. The AHAM Cooking Safety Working Group is evaluating requirements for food ignition mitigation for induction cooktops. They have faced challenges getting a stainless steel pan that can withstand multiple thermal cycles during ignition testing without warping. Their plan is to complete a proposal for induction and radiant glass cooktops in 2020. Work on test requirements for gas cooktops will follow. Staff expressed their support for AHAM's efforts on these developments and encouraged continued progress toward all

ranges eventually having temperature-limited heating elements and burners. Regarding clothes washers, AHAM's washer safety group has been working exhaustively to develop a forced failure test to assure containment in the event of an instantaneous out-of-balance condition at high spin speed. The group is closing in on a repeatable test method, and a working version of their proposal has been updated and circulated among their industry working group members. When they are ready, they will share videos of the test method with CPSC staff. For dishwashers, AHAM has four proposals for the next revision of the standard, UL 749, submitted or ready to submit: a nichrome wire test, electrical supply connection requirements, a sheathed heater test and an overfill test.

Finally, AHAM continues to work with the National Electrical Manufacturers Association (NEMA) on assessing the impact of specific appliance operation on nuisance tripping of arc-fault circuit-interrupters (AFCIs). The discussions could result in proposals to change the detection selectivity of AFCIs. Similarly, AHAM has been participating in discussions related to the operation of ground-fault circuit-interrupters (GFCIs) in response to currents with high-frequency components. The UL 943 STP is working on developing response curves that extend beyond 60 Hz.