



## MEETING LOG

**SUBJECT:** ASTM F15.22 Battery Environmental Heat Aging Task Group

**FY 24 OP PLAN ENTRY:** Batteries, Ingestion (Button)

**DATE OF MEETING:** 1/29/2024

**LOCATION OF MEETING:** Virtual

**CPSC STAFF FILING MEETING LOG:** Daniel Taxier (ESMC)

**FILING DATE:** 2/16/2024

**CPSC ATTENDEE(S):** Daniel Taxier (ESMC), Benjamin Mordecai (LSM), Jacqueline Campbell (EXHR), Charlotte Alton (GCRA)

**NON-CPSC ATTENDEE(S):** Contact ASTM for attendee list.

### Summary of Meeting:

The task group met to discuss CPSC staff's proposal to incorporate a heat aging step into the testing of toys with button cell or coin batteries in ASTM F963 *Standard Consumer Safety Specification for Toy Safety*, based on the protocols in UL 4200A *Standard for Safety for Products Incorporating Button Batteries or Coin Cell Batteries* and IEC 62368-1 *Audio/Video, Information and Communication Technology Equipment – Part 1: Safety Requirements*. The task group discussed the plan to compare the performance of toys in a round robin test to the use and abuse requirements in ASTM F963 with and without the proposed heat aging step. Staff proposed that the drop test protocol for the round robin test go up to 10 drops, to align more closely with UL 4200A; staff suggested the number of drops without failure be reported. Another task group member disagreed with the proposal for this round of testing but added that testing to failure could be considered in a future round of testing.

Task group members noted that the proposed heat aging test protocol had theoretical advantages and could potentially be applied to almost any toy made from thermoplastic materials; however, those same members were concerned by the test burden added by including 7 hours of heat aging. These members noted that they were not convinced a heat aging test was necessary, and would await review of the test results to come to a conclusion.

One task group member reported that IEC 62115 *Electrical Toys - Safety* does not have any heat aging protocol, and the technical committee is not currently considering its inclusion. CPSC staff reported that the stated rationale for the inclusion of the heat aging test in IEC 62368-1, as described in IEC/TR 62368-2, is to ensure that the mechanical integrity of molded plastic parts is not affected by any changes caused by thermal stress.

Several task group members mentioned that the number of samples needed for testing could become very



large, depending on the sample size, the number of different samples tested, and the test protocol. Two task group members were assigned to write the test protocol for review at the next meeting.

**Next Steps:**

The next task group meeting will be scheduled at a future date, pending completion of a draft test protocol.