



MEETING LOG

SUBJECT: ASTM F15.22 Working Group on Battery Construction

FY 23 OP PLAN ENTRY: Batteries, Ingestion (Button)

DATE OF MEETING: 12/20/2023

LOCATION OF MEETING: Virtual

CPSC STAFF FILING MEETING LOG: Daniel Taxier (ESMC)

FILING DATE: 1/16/2024

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

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

Summary of Meeting:

The working group on battery construction met to discuss CPSC staff's proposal to update the performance requirements for toys using button cell or coin batteries in ASTM F963, as outlined in staff's letter to the ASTM F15.22 toy subcommittee dated March 20, 2023.¹ Staff notified the working group of the publication of a Direct Final Rule for products using button batteries in accordance with Reese's Law, which incorporates by reference UL 4200A (published August 30, 2023).² Staff also informed the group that the Commission had directed staff to propose a rule for toys using button cell or coin batteries in the FY2024 Operating Plan.³ Staff noted that its goal working with ASTM and through the rulemaking process would be to achieve at minimum a similar level of safety for toy and non-toy consumer products. One meeting participant disagreed with harmonizing ASTM F963 with the requirements in Reese's Law, stating that he did not believe that it was Congress's intent and could result in years of litigation for the agency. Staff responded that other ideas that could demonstrably achieve a similar level of safety could be considered.

Working group members discussed proposals for the following performance requirements:

- A tensile test to verify that screws/fasteners remain captive.
 - Participants appeared to support implementing a similar test as that found in IEC 62115.
- Minimum threaded attachment requirements for screws/fasteners, and a minimum torque and angle of rotation requirements for twist-on covers (such as battery compartment covers that use a coin to open).
 - Participants supported a torque requirement.
- Battery replacement simulation testing.

¹ <https://www.cpsc.gov/s3fs-public/Letter-to-ASTM-F15-22-Reeses-Law-NPR-230320.pdf?VersionId=6ZGPs5nSLhBGIFdoz1IWHF1wo.oOgarH>

² [Federal Register :: Safety Standard for Button Cell or Coin Batteries and Consumer Products Containing Such Batteries](https://www.federalregister.gov/documents/2023/08/30/2023-16841-safety-standard-for-button-cell-or-coin-batteries-and-consumer-products-containing-such-batteries)

³ https://www.cpsc.gov/s3fs-public/FY2024OperatingPlan.pdf?VersionId=N46Kg9oFJtn_Slys4cdzuQYza29oFynS



- Staff noted that similar testing could be found in IEC 62115, UL 62368-1, and UL 4200A.
- Sequential testing.
 - The working group discussed how a sequential test would be different from the use and abuse requirements currently in ASTM F963. Staff pointed out that sequential testing is required for toys with magnets. Meeting participants agreed that sequential testing could be appropriate for particularly hazardous scenarios, but the test sequence would need to be evaluated carefully.
- Impact testing on the battery compartment.
 - Staff noted that the impact test was able to target the battery compartment in a way that the existing drop test could not, and that the impact test could be better at evaluating lightweight products which do not have much impact energy during the drop test.
 - Participants want to review other standards to see how the test is conducted. Participants also proposed reviewing the existing protective lens impact test and exploring whether a compression test could achieve similar outcomes.

Throughout the discussion, participants questioned whether requirements would apply just to toys using button cell or coin cell batteries, or to a larger group of products (such as all toys using small part batteries). Staff reiterated its goal to achieve a similar level of safety for toy and non-toy consumer products using button cell or coin cell batteries.

Next Steps:

The battery construction working group is expected to meet again in late January 2024. A separate labeling task group meeting will be scheduled later.