United States
Consumer Product Safety Commission

# MEETING LOG

**MEETING TITLE/SUBJECT:** Non-Conventional Fire Extinguisher (Consumer Fire Extinguishing Products)

**FY 25 OP PLAN ENTRY:** Fire Extinguishers

**DATE OF MEETING:** 11/14-15/2024

**LOCATION OF MEETING:** Chicago, IL and Hybrid

**CPSC STAFF FILING MEETING LOG:** Scott Ayers

**FILING DATE:** 11/22/2024

**CPSC ATTENDEE(S):** Scott Ayers (ESEF, in person), Shonali Nazare (LSF, Hybrid), and Kristen Talcott (ESHF, Hybrid)

**NON-CPSC ATTENDEE(S):** Contact ULSE for the full attendee list

**Summary of Meeting:**
ULSE convened a meeting on non-conventional fire extinguishers (specifically those that consumers may use). NFPA, UL, Solutions, UL Fire Safety Research Institute, the National Association of State Fire Marshals (NASFM), and CPSC staff participated in the planning of the meeting. Stakeholders interested in aerosol can fire extinguishers, fireballs, fire blankets, and lithium-ion battery fire extinguisher devices attended. Contact ULSE for more information on this meeting.

The first day of the meeting (11/14) was focused on educating participants on the fire extinguishing products, known data, and human factors considerations. The second day of the meeting (11/15) was focused on brainstorming and discussing possible future work on standards development.

During the first day, manufacturers presented on aerosol fire extinguishers, fire extinguishing balls, and fire blankets; the Fire Department of New York City (FDNY) presented methods of extinguishing lithium-ion batteries. Some fire blanket manufacturers are developing fire blankets for electric vehicles (EV) and micromobility fire incidents. Those fire blankets would have different qualities from consumer-usage fire blankets. An existing standard for consumer fire blankets, ASTM F1989, has not been updated since 2005. There are standards in other countries for fire blankets, but no other known standards for fire blankets in the US and Canada. UL, Solutions presented data, including test results, on aerosol fire extinguishers showing a wide variety of performance, including inconsistent discharging times and patterns and poor performance suppressing fire. Aerosol fire extinguishers do not meet the requirements of UL 711 but continue to be sold. The fire extinguishing ball manufacturer pointed out that fire extinguishing balls may be useful in commercial applications such as fire protection in truck engine compartments but are not for consumer use as a fire extinguisher.

CPSC staff discussed general human factors considerations for product design and some information on

human factors considerations in consumer use of fire extinguishers. CPSC staff has not conducted a literature review but is aware of some research on consumer use of fire extinguishers. Participants pointed out to work by NFPA on fire extinguisher usage. Participants plan to compile a list of relevant research and discuss human factors related to fire extinguishers in the future.

On the second day, in person participants brainstormed answers to the falling questions on each of the products discussed on the first day of the meeting:

- What concerns are there?
- Does UL 711 or other published standards apply to these products?
- Should it apply or should a new standard be developed?
- Are changes needed and if so, what should those changes be and why?
- What other ways are there to address the concerns?

The discussions during the brainstorming session went long and the brainstorming results were not shared during the meeting. Instead, ULSE will provide results in the future.

**Next Steps:**
Staff plan to participate in future standards development work on aerosol fire extinguishers (probably under UL 711), fire blankets (ASTM F1989), and lithium-ion battery extinguishing products (probably as new standards, as applicable to consumer products). It does not appear that the current planned fire extinguisher ball standards work will be related to consumer products, but staff plans to monitor.