

US Consumer Product Safety Commission Log of Meeting

Subject: ASTM F15.45 Candle Incidents Quarterly Meeting

Date: January 24, 2023

Location: Teleconference

Prepared By: Scott Ayers (sayers@cpsc.gov, 301-987-2030), January 24, 2023

CPSC Attendees: Scott Ayers and Chen Su

Non-CPSC Attendees: Contact ASTM for a complete list of attendees.

Summary of Meeting:

Contact ASTM for more details of this meeting. This meeting was held for two purposes, first to review the most recent candle incident reports and recalls reported in SaferProducts.gov and other sources. And second, to discuss possible changes to ASTM F2417 Specification for Fire Safety for Candles and ASTM F2601 Specification for Fire Safety for Candle Accessories. CPSC staff actively participated in conversations during the meeting.

Recent Candle Incidents and Recalls

There two new CPSC recalls posted to SaferProducts.gov since the last meeting. Both identified issues should be covered by the current standards.

- 1/19/2023: Six wick candle can flash over
- 12/15/2022: Candle can create too much heat which can cause damage

Health Canada discussed a recall involving liquid burners, but the group decided the recall was out of scope.

There was one recall in Europe and the United Kingdom

- 10/11/2022: Candle burner that should use tealights was recalled because consumers were using other types of candles. This issue will be added to the Candle Fire Safety Task Group watch list.

The group reviewed 6 incidents posted to SaferProducts.gov. All incidents should be addressed by requirements in the voluntary standards, except as noted:

- 1/19/2023: Candle flashed over at end of life in bathroom while consumer showered. Pictures suggested foreign objects (most likely matches) remained in candle.
- 1/5/2023 (first): Candle glass shattered. Two of three wicks appeared to migrate sidewalls and impinge causing a thermal gradient. The subcommittee will soon propose new requirements in ASTM F2417 for wick migration.
- 1/5/2023 (second): Plastic components of a tealight candle burner can melt. The subcommittee will consider adding a requirement in ASTM F2601.
- 12/19/2022: The candle flashed over very early in the candle life. It is possible that other issues not identified may have contributed to the incident.
- 12/6/2022: Container candle flashed over while in a wooden or ceramic holder causing glass to shatter. The consumer appears to have used water to extinguish the candle.
- 11/14/2022: Candle flashed over at end of life causing excessive heat which melted and deformed the plastic tray it was on. The candle appeared to be unattended.

Review of ASTM F2417 and ASTM F2601

The subcommittee has prepared three ballot items for ASTM F2417. The ballot items are expected to be included on the next ASTM F15 ballot. The working group looking at container porosity and imbedded items for potential future requirements in ASTM F2417 updated the group on their progress.

The group discussed several proposed changes to ASTM F2601. Proposed changes include new requirements for candle holders, definition of deform (including melting), changes to the scope to only apply to accessories used with burning candles, limiting the excluded items from the flammability requirement, and a new requirement not allowing accessories to provide additional heat to the candle. Three items need additional work, the other items are ready for ballot: volunteers will update the candle holders requirements; staff will work with others to develop a definition of “deform;” and staff will work with others on a new requirement not allowing accessories to provide additional heat to the candle.

The next meeting for both the quarterly incident and recall reviews and candle fire safety task group was scheduled for April 18, 2023 from 9:30am to 12:00pm.