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**UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
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BETHESDA, MARYLAND 20814**

Memorandum

June 2, 2021

To: The Commission
Alberta E. Mills, Secretary

THROUGH: Mary T. Boyle, Executive Director
Jennifer Sultan, Acting General Counsel

FROM: Patricia L. Edwards,
Voluntary Standards Coordinator
Office of Hazard Identification and Reduction

SUBJECT: Voluntary Standards Activities Fiscal Year 2021 Mid-Year Report

Attached is U.S. Consumer Product Safety Commission (CPSC) staff's Fiscal Year 2021 (FY 2021) Mid-Year Voluntary Standards Tracking Activities Report (VSTAR), covering the period from October 1, 2020 through March 31, 2021. If you have any questions, please contact Patricia Edwards at: pedwards@cpsc.gov.

VOLUNTARY STANDARDS TRACKING ACTIVITY REPORT



**FY 2021 MID-YEAR REPORT
(October 1, 2020–March 31, 2021)**

**U.S. CONSUMER PRODUCT SAFETY COMMISSION
4330 East West Highway, Bethesda, MD 20814**

This report was prepared by CPSC staff and has not been reviewed or approved by, and may not necessarily reflect the views of, the Commission

Voluntary Standards Activities October 1, 2020–March 31, 2021

SUMMARY

Voluntary standards play an important role at the U.S. Consumer Product Safety Commission (CPSC). Under some of CPSC's statutes, if a relevant voluntary standard addresses the risk of injury that a consumer product presents, the Commission could issue a mandatory standard, but only if the voluntary standard is not likely to adequately reduce the risk of injury, or there is not likely to be substantial compliance with the voluntary standard. Additionally, some provisions of the Consumer Product Safety Improvement Act of 2008 (CPSIA) include sections regarding certain voluntary standards. Specifically, section 104 of the CPSIA requires the Commission to promulgate mandatory consumer product safety standards for durable infant or toddler products. These mandatory standards are to be "substantially the same as" applicable voluntary standards or more stringent than these voluntary standards, if the Commission determines that more stringent requirements will further reduce the risk of injury associated with the product.

The Voluntary Standards Tracking Activity Report (VSTAR) is issued biannually as: (1) a Mid-Year Report, covering the period from October 1 through March 31, and (2) an Annual Report of the CPSC fiscal year, which covers the period from October 1 to September 30. This document is the Fiscal Year 2021 (FY 2021) Mid-Year Report.

Voluntary standards activities are handled by various standards developing organizations (SDOs), most of them accredited by the American National Standards Institute¹ (ANSI). The majority of the voluntary standards discussed in this report are developed by ASTM International (ASTM) and Underwriters Laboratories Inc. (UL). This report contains a listing of all the SDOs working with staff on voluntary standards and includes their abbreviated designation(s).

The VSTAR also includes a table listing the voluntary standards that staff contributed to that were initially published or revised during the reporting period. This report also identifies staff who were approved during the reporting period to vote on a voluntary standard or to hold a leadership position on a standards body.

Lastly, the VSTAR contains a section for each product or product area associated with voluntary standards work, as outlined in the FY 2021 CPSC Operating Plan (Op Plan). The FY 2021 Op Plan outlines 78 different products or product areas, for which staff is, or will be, actively involved in developing voluntary standards during the fiscal year. The voluntary standards covered in this report provide safety provisions addressing potential hazards associated with

¹International Organization for Standardization (ISO), American Pyrotechnics Association (APA), and The American Fireworks Standards Laboratory (AFSL) are not accredited by ANSI.

consumer products found in homes, schools, and recreation areas. More than 30 different staff serve as designated representatives (DRs) for the voluntary standards work that covers the 78 products outlined in this report.

Each VSTAR product section includes the following information:

<i>Staff Contact:</i>	The name of staff leading the activity (<i>i.e.</i> , the DR);
<i>Voluntary Standard(s):</i>	The designation(s) and name(s) of existing voluntary standards, potential new voluntary standards, and ISO standards associated with the product, with which staff is actively involved. The designation and titles for new or updated voluntary standards are in <i>bold font</i> . Titles for current voluntary standards are in <i>italics</i> , and titles of draft or potential standards are in plain font (not bold and non-italicized).
<i>Relevant Rulemaking:</i>	Any associated CPSC mandatory standard(s), proposed regulation(s), and any relevant petitions, regardless of status.
<i>Standard(s) Update:</i>	Any updates to the voluntary standards or potential new voluntary standards with staff's participation. This subsection also includes updates to any of the petitions, mandatory standards, or proposed regulations noted in the subsection above.
<i>Purpose:</i>	The purpose of staff's involvement with the voluntary standard(s).
<i>Activities:</i>	Activity associated with the voluntary standards, mandatory standards, proposed regulations, and petitions that occurred during the reporting period. Staff and Commission activities are highlighted in this subsection.
<i>Next Action:</i>	Staff's anticipated actions on the voluntary standards and associated mandatory standards. This subsection also includes any recommendations associated with the voluntary standard.

For additional information on specific activities outlined in the product sections of this report, and to review any voluntary standards meeting logs, check the CPSC website.

UPDATED STANDARDS

Table 1 lists the 15 revised, renewed, or new voluntary standards that staff actively engaged in revising or developing, and that were published during the period October 1, 2020 to March 31,

2021. Details regarding the revisions can be found in the applicable product sections of this report. The designations and titles of these 15 voluntary standards are shown in bold font in the applicable product sections.

**Table 1: New or Revised Voluntary Standards Published
October 1, 2020 - March 31, 2021**

Title	SDO	Standard Designation	Published	DR	New, Revision, Renewal
Guide for Ensuring the Safety of Consumer Connected Products	ASTM	F3463-20	Oct-20	Lee, S.	New
Polymeric nanocomposite films for food packaging with barrier properties - Specification of characteristics and measurement methods	ISO	ISO/TS 21975:2020	Oct-20	Matheson, J.	New
Standard Test Method for Determining Impact Attenuation of Playground Surfaces	ASTM	F3313-20	Nov-20	Lee, K.	Revision
Standard Test Methods for Equipment and Procedures Used in Evaluating the Performance Characteristics of Protective Headgear	ASTM	F1446-20	Nov-20	Dayal, Vineed	Revision
Standard for Construction, Classification, Approval, and Transportation of Consumer Fireworks	APA	APA 87-1A	Dec-20	Valliere, R.	Revision
Particular Requirements for Robotic Battery Powered Electrical Lawnmowers	OPEI	ANSI/OPEI 60335-2-107-2020	Dec-20	Paul, C.	Revision
Standard Consumer Safety Specification for High Chairs	ASTM	F404-20	Dec-20	Marquis, S.	Revision
Standard Consumer Safety Specification for Child Safety Locks and Latches for Use with Cabinet Doors and Drawers	ASTM	F3492-21	Feb-21	Lee, K.	New
Standard Specification for Candle Fire Safety Labeling	ASTM	F2058-07 (2021)	Feb-21	Ayers, S.	Renewal
Standard Specification for Determining Flammability of Materials for Recreational Camping Tents and Warning Labels for Associated Hazards	ASTM	F3431-21	Feb-21	Tenney, A.	Revision

Standard Consumer Safety Specification for Children's Chairs and Stools	ASTM	F2613-21	Feb-21	Lee, K.	Revision
Structural characterization of graphene Part 1: Graphene from powders and dispersions	ISO	ISO/DTS 21356-1:2021	Feb-21	Matheson, J.	New
Standard Specification for Marketing, Packaging, and Labeling Adult Magnet Sets Containing Small, Loose, Powerful Magnets (with a Flux Index $\geq 50 \text{ kG}^2\text{mm}^2$)	ASTM	F3458-21	Mar-21	Harsanyi, S.	New
American National Standard for Portable Lithium Primary Cells and Batteries - Safety Standard	NEMA	ANSI C18.3M Part 2-2021	Mar-21	Le, H.	Revision

VOTING AND LEADERSHIP ROLES ON VOLUNTARY STANDARDS

In accordance with 16 CFR part 1031, “*Commission Participation and Commission Employee Involvement in Voluntary Standards Activities*,” the VSTAR report includes information about staff voting and leadership activities. In FY 2021, the Office of the Executive Director (OEX) approved one new staff leadership role and four new staff voting requests. OEX also approved one renewal request for a leadership role and three renewal requests for voting during the reporting period. Listed below are the requests approved during the first half of FY 2021:

- Steve Harsanyi – Renewal (voting on ASTM F15.77, Adult Magnets)
- Kevin Lee – Renewal (voting on ASTM F15.29, Public Playgrounds)
- Allyson Tenney – Renewal (voting on ASTM F08.22, Tent Flammability)
- Steve Harsanyi – New approval (voting on ASTM F15.66, Crib Mattresses)
- Celestine Kish – New approval (voting on ASTM F15.18, Bassinets/Cradles)
- Celestine Kish – New approval (voting on ASTM F15.18, Inclined Infant Sleep Products)
- Celestine Kish – New approval (voting on ASTM F15.18, In-Bed Sleepers*)
- Arthur Lee - Renewal (leadership on UL 1042, Electric Room Heaters)
- Vineed Dayal - New approval (leadership on ASTM F08.53 Helmet Sensors)

*Not included in the voluntary standards table for the FY 2021 Op Plan

ORGANIZATIONAL ABBREVIATIONS

The list below contains abbreviations for SDOs and other groups related to the standards covered by this VSTAR report:

AATCC	American Association of Textile Chemists and Colorists
AFSL	The American Fireworks Standards Laboratory
AHFA	American Home Furnishing Alliance
AHRI	Air Conditioning, Heating and Refrigeration Institute
ANSI	The American National Standards Institute <ul style="list-style-type: none">• ANS – American National Standard (Approved by ANSI)
APA	American Pyrotechnics Association
APSP	The Association of Pool and Spa Professionals (now part of The Pool & Hot Tub Alliance, see PHTA)
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASTM	ASTM International
BIFMA	Business and Institutional Furniture Manufacturing Associations
CAN	Health Canada Regulation
CANENA	Council for Harmonization of Electrotechnical Standards of the Nations in the Americas
CSA	CSA Group <ul style="list-style-type: none">• TSC – Technical Subcommittee• TC – Technical Committee
EN	European Standards
ICC	International Code Council
IEC	International Electrotechnical Commission
IEEE	The Institute of Electrical and Electronics Engineers

ISO	International Organization for Standardization <ul style="list-style-type: none"> • TAG – Technical Advisory Group • TC – Technical Committee
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association <ul style="list-style-type: none"> • NEC – National Electrical Code • TIA – Technical Interim Agreement
NFSI	National Floor Safety Institute
NIST	National Institute of Standards and Technology
NOCSAE	National Operating Committee on Standards for Athletic Equipment
OPEI	Outdoor Power Equipment Institute
PGMA	Portable Generator Manufacturers Association
PHTA	Pool & Hot Tub Alliance
ROHVA	Recreational Off-Highway Vehicle Association
SAE	Society of Automotive Engineers
SVIA	Specialty Vehicle Institute of America
UL	Underwriters Laboratories Inc. <ul style="list-style-type: none"> • STP – Standards Technical Panel • ORD – Other Recognized Document (pertains to voluntary standards recognized in Canada)
WCMA	Window Covering Manufacturers Association

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CPSC Staff Voluntary Standards Activities

FY 2021 Mid-Year Report

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Additive Manufacturing/3D Printing

Staff Contact Thomas, Treye

Voluntary Standard(s) UL 2904, 1st Edition *Standard Method for Testing and Assessing Particle and Chemical Emissions from 3D Printers*

ISO/ASTM WD 52932 Potential new joint ISO and ASTM voluntary standard for determining the particle and chemical emission rates from desktop 3D printer material extrusion

ASTM WK69730 Potential new voluntary standard for wired directed-energy deposition processes

Relevant Rulemaking NA

Standard(s) Update The voluntary standards listed above were not updated during the reporting period.

Purpose To work with UL, ASTM, CSA, and other SDOs to develop standards for Additive Manufacturing and 3D Printers to address the hazards associated with 3D printed products and the 3D printing process.

Activities Staff established interagency agreements to support collaborative research on 3D printers. Federal agency collaborators include the US EPA, NIOSH, NIST, and the US Army ERDC. This research involves developing methods to quantify and characterize chemical releases during printing and from printed products. An important potential outcome of this 3D printing research is developing voluntary standards.

Next Action Staff will continue to work with stakeholders to develop voluntary standards for additive manufacturing and 3D printing. Staff will participate in the ASTM F42 Virtual Meeting on additive manufacturing from May 12 to May 18, 2021.

Adult Portable Bed Rails

<i>Staff Contact</i>	Dayal, Vineed	
<i>Voluntary Standard(s)</i>	ASTM F3186-17	<i>Standard Specification for Adult Portable Bed Rails and Related Products</i>
<i>Relevant Rulemaking</i>	13-1 <i>Petition on Adult Portable Bedrails</i> docketed in June 2013.	
<i>Standard(s) Update</i>	The voluntary standard and the petition listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM to revise the voluntary standard, as needed, to address hazards associated with adult portable bed rails.	
<i>Activities</i>	In January 2021, staff supplied ASTM with incident data pertaining to adult portable bed rails. On March 26, 2021, staff followed up with a letter to the ASTM subcommittee chair requesting that a subcommittee meeting be scheduled to review the data.	
<i>Next Action</i>	Staff will participate in the next ASTM subcommittee meeting, scheduled for May 2021. Staff will also begin testing and analysis in support of a FY 2022 briefing package for Commission consideration regarding the petition.	

All-Terrain Vehicles (ATVs)

<i>Staff Contact</i>	Paul, Caroleene	
<i>Voluntary Standard(s)</i>	ANSI/SVIA 1-2017	<i>Four Wheel All-Terrain Vehicles</i>
<i>Relevant Rulemaking</i>	16 CFR part 1420, <i>Standard for All-Terrain Vehicles</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with SVIA to revise the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels to reduce fire,	

stability, and occupant protection hazards associated with ATVs.

Activities

Fire Hazards: At the end of FY 2020, staff attended a meeting with SVIA and OPEI, where rollover containment, fuel hose tensile test, fuel system ventilation, and fuel tank structural integrity were discussed. OPEI staff informed staff that some SDO members may present proposals to revise the standard in FY 2021. On March 23, 2021, SVIA informed CPSC that ANSI/SVIA 1-2017 is open for revision.

Stability Hazards: Staff conducted research on ATVs equipped with antilock brake systems, and intend to share the initial test data with SVIA.

Occupant Protection Hazards: Staff reviewed and provided comments to a contractor report on proof-of-concepts of occupant protection devices, dynamically tested and evaluated with a rollover sled device. This report will be shared with the SDOs.

Next Action

The Occupant Protection Hazards contractor report is expected to be published in third quarter FY 2021. In addition, staff will submit an ANPR briefing package on fire and debris penetration to the Commission on April 28, 2021, in accordance with the FY 2021 Op Plan. The ANPR briefing package includes fire issues for ATVs. Staff will review comments received on the ANPR and any proposed requirements from SVIA to address fire hazards. Staff will also share information on ATV stability and occupant protection with SVIA and plan a meeting to discuss.

Amusement Rides, Trampoline Parks, and Adventure Attractions

Staff Contact Taxier, Daniel

<i>Voluntary Standard(s)</i>	ASTM F770-19	<i>Standard Practice for Ownership, Operation, Maintenance, and Inspection of Amusement Rides and Devices</i>
	ASTM F1193-18a	<i>Standard Practice for Quality, Manufacture, and Construction of Amusement Rides and Devices</i>
	ASTM F2137-19	<i>Practice for Measuring the Dynamic Characteristics of Amusement Rides</i>
	ASTM F2974-20	<i>Standard Practice for Auditing Amusement Rides and Devices</i>

ASTM F2291-20 *Standard Practice for Design of Amusement Rides and Devices*

***Relevant
Rulemaking***

N/A

***Standard(s)
Update***

The voluntary standards listed above were not updated during the reporting period.

Purpose

To work with ASTM to revise their voluntary standards to strengthen safety provisions addressing hazards associated with amusement rides.

Activities

Staff participated in the October 12-16, 2020 general meetings of ASTM Committee F24 on Amusement Park Rides and Devices. The related subcommittees and task groups met to discuss ongoing standards development and other factors pertaining to the safety of amusement park rides. Staff attended the following meetings:

F24.70 Strategy Session
F24.20 Specifications and Terminology
F24.24 Task Group on Patron Clearance Envelope
F24.24 Task Group on F1193 - Standard Practice for Quality, Manufacture, and Construction of Amusement Rides and Devices
F24.24 Task Group on F2291 Acceleration
F24.24 Task Group on Orphan Rides
F24.24 Task Group on Loads & Strengths
F24.24 Task Group on Ride Modifications
F24.24 Task Group on AR/VR
F24.80 Global Standard Harmonization
F24.24 Task Group on Restraints
F24.90 Task Group on Ride Analysis (Risk Assessment)
F24.90 Evolution (EVO) Group #1 – Design/Engineering Corrosion Issues
F24.90 EVO Group #2 – Maintenance Corrosion Issues

During the F24.24 task group meetings on F2291 Acceleration, staff expressed interest in reviewing a proposal from MLIT Japan limit lateral acceleration. The review has not yet taken place. Staff also suggested potential changes to non-mandatory language in the F2291 standard during the F24.24 Loads and Strengths meeting.

Staff participated in the February 2021 general meeting of ASTM Committee F24 on Amusement Park Rides and Devices. The related subcommittees and task groups met to discuss ongoing standards development and other factors pertaining to the safety of amusement park rides. Staff attended the following meetings:
F24.24 Station Guarding

F24.70 Task Group on Water Slides – F2376 Reorganization Process
 F24.70 Task Group on Water Slide Patron Clearance Envelope
 F24.70 Task Group on Water Slides – Rider Eligibility Requirements
 F24.24 Task Group on F2291 Acceleration
 F24.24 Life Cycle (Orphan Ride) Task Group
 F24.24 Task Group on Loads and Strengths
 F24.24 Task Group on Ride Modification
 F24.24 VR/AR Task Group
 F24.30 Maintenance and Inspection Subcommittee Meeting
 F24.40 Subcommittee on Operations
 F24.24 Restraints
 F24.90 Risk Assessment
 F24.90 EVO Group #1 – Design/Engineering Corrosion Issues
 F24.90 EVO Task Group #2 – Maintenance Corrosion Issues

During the F24.90 EVO Task Group #1 meeting in February 2021, staff suggested a potential change to balloted language to resolve a negative vote. This discussion resumed during the March 24, 2021 meeting.

On March 24, 2021, staff participated in an EVO Task Group #1. This task group has been working since 2017, to address corrosion issues related to the Design/Engineering of amusement rides and devices in response to a letter from staff.

Next Action Staff will continue to participate on F24 subcommittees, including attending the next committee meetings scheduled for October 2021.

Artificial Intelligence (AI)

Staff Contact Taylor, Nevin

Voluntary Standard(s) UL 3300 Potential new voluntary standard for safety of service, communication, information, education, and entertainment (SCIEE) robots

Relevant Rulemaking NA

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with applicable SDOs to develop standards to address the safety hazards associated with artificial intelligence in consumer products.

Activities

In October 2020, staff held meetings with ASTM staff and with ANSI staff, to introduce CPSC's new Chief Technologist, Nevin Taylor, and to discuss staff's plan on artificial intelligence as it pertains to the safety of consumer products.

On February 2, 2021, staff attended a UL STP kickoff meeting for stakeholders interested in developing a new consensus standard - UL 3300, for SCIEE robots. The STP reviewed a summary of the Outline of Investigation - UL 3300, which serves as the new voluntary standard's seed document. Members will have access to the complete Outline of Investigation after the meeting, and when the open comment period begins.

On March 2, 2021, staff hosted a forum on AI and Machine Learning (ML) technology and consumer product safety. The objective of the event was to exchange information with stakeholders about the safety of consumer products that use AI and ML technology. The forum participants discussed AI and ML policy, voluntary standards, application, assessments, and safety.

Next Action

Staff will continue to work with SDOs to identify other potential voluntary standards for development and will participate in the next UL STP 3300 meeting, following the open comment period.

Bassinets/Cradles

Staff Contact

Kish, Celestine

Voluntary Standard(s)

ASTM F2194-16e¹

Standard Consumer Safety Specification for Bassinets and Cradles

Relevant Rulemaking

16 CFR part 1218, *Safety Standard for Bassinets and Cradles*

Standard(s) Update

The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose

To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with bassinets and cradles.

Activities

At the end of FY 2020, ASTM issued a ballot containing three items pertaining to bassinets: stability, scope/terminology, and side height. In October 2020, staff cast negative votes for those ballot items, reasoning that the proposals to reduce side-height and the 20°inclined surface stability test for compact bassinets are less stringent than the existing requirements for

traditional bassinets. Staff's negative vote on the stability requirement was deemed to be non-persuasive. Meanwhile, negative votes cast by other subcommittee members on the scope/terminology and side height were found to be persuasive, and these ballot items were subsequently re-balloted in December 2020. Staff again voted negative on these two items, referring to the same rationale from the October 2020 letter.

In February 2021, ASTM issued another ballot containing two items on bassinets: (1) requirements for baby box-style bassinet lids, and (2) cardboard water repellency requirements for baby boxes. Staff voted affirmative on these items.

In addition to balloting activity, staff participated at the ASTM subcommittee meeting on November 10, 2020. During the meeting, ballot results were discussed, and two new task groups were formed to: (1) clarify Section 6.8 Fabric-Sided Enclosed Openings, and whether it is an entrapment or fall hazard; and (2) clarify pad vs. sleeping pad vs. mattress and Section 6.10. Staff will participate in each task group.

Task group meetings were held on December 17, 2020 for Baby Box products, on January 22, 2021 for Ad Hoc Language and Sleeping Pads, and on February 23, 2021 for Ad Hoc Language. Staff participated in each of these task group meetings.

Next Action Staff will participate in upcoming meetings, including the next ASTM subcommittee meeting scheduled in May 2021.

Bath Tubs (Adult)

Staff Contact Bowley, Susan

Voluntary Standard(s) ASTM F462 - *Consumer Safety Specification for Slip-Resistant Bathing Facilities*
79(2007)
(Withdrawn in 2016)

Relevant Rulemaking N/A

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with ASTM to re-establish F462, or develop a new voluntary standard to address fall hazards associated with adult bath tubs and shower facilities.

Activities

On March 19, 2021, staff participated in an ASTM F15.03 subcommittee meeting. This meeting was held to revisit and discuss the withdrawn standard, ASTM F462, and the obstacles to creating a new standard to address slip/fall hazards in bath tubs. The ASTM F462 standard was not based on human slip research, and it focused on using only one slip-resistance tester to determine coefficient of friction. The members want to focus on developing a new standard that uses reference surfaces and human subject testing. To date, members have not created any reference surfaces for testing. Staff discussed addressing vulnerable populations, such as the elderly, in the standard. Discussion also involved: including plastic bath tub manufacturers in the group; including friction strips, mats, and handholds in the new standard; characterizing wear on the surface over use time; ASME A112.19.1 (plumbing standard); ASTM F446 and Americans with Disabilities Act provisions in ICC A117.1.

During the meeting, many tasks were assigned for next steps, including reviewing the CPSC bid process used last year for a contract regarding bath tub test method development, to notify a larger audience (no bids were received). Staff also agreed to provide incident data on an ongoing basis regarding elderly slip/fall incidents and bath tubs.

Next Action

Staff will participate in the next ASTM subcommittee meeting, when scheduled, and provide support to the task groups.

Batteries, Fire (High-Energy Density)

Staff Contact Kadiwala, Jay

Voluntary Standard(s)

UL 1642, 6th Edition *Standard for Safety for Lithium Batteries*

UL 2743, 2nd Edition *Standard for Portable Power Packs*

UL 1310, 7th Edition *Standard for Safety for Class 2 Power Units*

UL 62133, 2nd Edition *Standard for Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications*

ANSI C18.2M Part *American National Standard for Portable*

2-2014 *Rechargeable Cells and Batteries—Safety Standard*

ANSI C18.3M Part 2-2021 ***American National Standard for Portable Lithium Primary Cells and Batteries - Safety Standard***

ANSI C18.4M-2017 *American National Standard for Portable Cells and Batteries – Environmental*

Relevant Rulemaking

N/A

Standard(s) Update

In March 2021, NEMA published ANSI C18.3M Part 2-2021, the latest revision to the *American National Standard for Portable Lithium Primary Cells and Batteries - Safety Standard*. This revision harmonizes with IEC 60086-4:2019, *Primary batteries – Part 4: Safety of lithium batteries*, and primarily addresses ingestion hazards (see next entry).

Purpose

To work with the various SDOs on revising battery, battery charger, and battery-powered product safety voluntary standards and support developing certification programs for batteries to address fire-related hazards, including overheating, thermal burns, fire, and explosions.

Activities

Staff participated in two NEMA/ANSI C18 Subcommittee on Portable Cells and Batteries meetings on December 2 and 3, 2020, and on March 24 and 25, 2021. During the December meeting, staff continued to advocate for adding a recommended practices guide (ANSI C18-5, part 2) for designers of lithium-ion battery products, to address the overheating and fires of lithium-ion battery products. The subcommittee also decided to change ANSI C18.5 Part 2 from an ANSI standard to a technical report (TR) and will continue drafting a report in working group meetings.

During the March meeting, staff initiated a discussion on recalled lithium batteries and their inclusion in ANSI C18.4. Staff is coordinating with the Department of Transportation and the Environmental Protection Agency to improve guidance for returning, shipping, and recycling recalled lithium battery products. Currently, ANSI C18.4 does not have any specific requirements for recalled lithium batteries.

Next Action

Staff will continue to participate in NEMA, UL, IEEE, ASTM, and other pertinent meetings, to draft, revise, and harmonize requirements to eliminate or reduce overheating and fire hazards in high-energy density batteries. Staff will participate in a meeting on April 8, 2021, to continue developing the ANSI Technical Report, Recommended Practices Guide for Designers of Lithium-Ion Battery Products.

Batteries, Ingestion (Button)

Staff Contact Le, Huy

Voluntary Standard(s)	UL 1642, 5 th Edition	<i>Standard for Safety for Lithium Batteries</i>
	UL 4200A, 1 st Edition	<i>Standard for Safety for Products Incorporating Button or Coin Cell Batteries of Lithium Technologies</i>
	UL 60065, 8 th Edition	<i>Standard for Audio, Video, and Similar Electronic Apparatus—Safety Requirements</i>
	ANSI C18.1M Part 2-2017	<i>American National Standard for Portable Primary Cells and Batteries with Aqueous Electrolyte - Safety Standard</i>
	ANSI C18.2M Part 2-2014	<i>American National Standard for Portable Rechargeable Cells and Batteries—Safety Standard</i>
	ANSI C18.3M Part 2-2021	<i>American National Standard for Portable Lithium Primary Cells and Batteries - Safety Standard</i>
	ANSI C18.4M-2017	<i>American National Standard for Portable Cells and Batteries</i>

Relevant Rulemaking N/A

Standard(s) Update In March 2021, NEMA published ANSI C18.3M Part 2-2021, the latest revision to the *American National Standard for Portable Lithium Primary Cells and Batteries - Safety Standard*. This revision harmonizes with IEC 60086-4:2019, *Primary batteries – Part 4: Safety of lithium batteries*, and to add a “Keep out of reach” icon and warnings text to address battery ingestion hazards. The new revision includes requirements for the IEC pictogram, child-resistant packaging, and warning text for button cell packaging.

Purpose To work with the various SDOs to revise button and coin cell battery safety voluntary standards and end-product voluntary standards for products that use these button and coin cell batteries, to address accidental battery ingestions that can cause severe injury and death.

Activities

Staff participated in two NEMA/ANSI C18 Subcommittee on Portable Cells and Batteries meetings on December 2 and 3, 2020, and on March 24 and 25, 2021. The main C18 committee is waiting to see the balloted results of an IEC 60086-5:2016, *Primary Batteries – Part 5: Safety of batteries with aqueous electrolyte*, proposed draft on button cell packaging and warning labels for non-lithium button cells. Also, staff continues to support the ANSI recommendation to use “WARNING” when serious injury or death can be the outcome. “CAUTION” is used when minor or moderate injury is a likely outcome.

Staff participated in a button battery task force meeting on December 9, 2020. The task force’s mission statement is: “a collaborative effort of representatives from relevant organizations in industry, medicine, public health and government to develop, coordinate and implement strategies to reduce the incidence of button battery injuries in children.” During the meeting, staff updated members on recent ANSI C18 voluntary standards efforts. Staff also continued to advocate for the same labeling for non-lithium button cells, as used for lithium coin cells, which includes “WARNING serious injury or death” may occur. There have been deaths associated with ingestion of non-lithium button cell batteries and serious life-long injuries are also a possible outcome if non-lithium cells are placed and lodge in other openings of the body.

Next Action

Staff will continue to participate in NEMA, UL, ASTM, and other related meetings, to draft, revise, and harmonize requirements to eliminate or reduce battery-ingestion hazards.

Bedside Sleepers

Staff Contact

Nesteruk, Hope

Voluntary Standard(s)

ASTM F2906-13(2019)

Standard Consumer Safety Specification for Bedside Sleepers

Relevant Rulemaking

16 CFR part 1222, *Safety Standard for Bedside Sleepers*

Standard(s) Update

The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose

To work with ASTM to ensure that the voluntary standard and the

corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with bedside sleepers.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

Next Action Staff will participate in the next ASTM subcommittee meeting, when scheduled, and also will review incident data to ensure the continued adequacy of the voluntary standard.

Bicycles

Staff Contact Mella, Lawrence

Voluntary Standard(s) ASTM F2793-14 *Standard Specification for Bicycle Grips*

Relevant Rulemaking 16 CFR part 1512, *Requirement for Bicycles*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To develop new or revised ASTM voluntary standards to reduce or eliminate hazards associated with bicycles and bicycle components.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

Next Action Staff will attend the next ASTM F08.10 and ASTM F08.96 meetings scheduled for May 4, 2021.

Booster Seats

Staff Contact Kish, Celestine

Voluntary Standard(s) ASTM F2640-18 *Standard Consumer Safety Specification for Booster Seats*

Relevant Rulemaking	16 CFR part 1237, <i>Safety Standard for Booster Seats</i>
Standard(s) Update	The voluntary and mandatory standards listed above were not updated during the reporting period.
Purpose	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with booster seats.
Activities	To monitor the adequacy of the mandatory standard and its referenced voluntary standard, staff conducted the annual review of incident data associated with booster seats in March 2021. Staff did not identify any new hazard patterns since the last review.
Next Action	Staff will report the results of the incident data review to ASTM, and staff will participate in the next ASTM subcommittee meeting when it is scheduled.

Candles and Candle Accessories

Staff Contact	Ayers, Scott	
Voluntary Standard(s)	ASTM F2326-04(2021)	<i>Standard Test Method for Collection and Analysis of Visible Emissions from Candles as They Burn</i>
	ASTM F2058-07(2021)	<i>Standard Specification for Candle Fire Safety Labeling</i>
	ASTM F2417-17	<i>Standard Specification for Fire Safety for Candles</i>
	ASTM F2601-18	<i>Standard Specification for Fire Safety for Candle Accessories</i>
	ASTM F2179-20	<i>Standard Specification for Annealed Soda-Lime-Silicate Glass Containers that Are Produced for Use as Candle Containers</i>
	ASTM F1972-19	<i>Standard Guide for Terminology Related to Candles and Associated Accessory Items</i>

Relevant Rulemaking	Petition CP 04-1 and HP 04-01, denied September 2014. Commission directed staff to continue to work with ASTM.
Standard(s) Update	In February 2021, ASTM reapproved, without change, ASTM F2326-04, <i>Standard Test Method for Collection and Analysis of Visible Emissions from Candles as they Burn</i> and ASTM F2058-07, <i>Standard Specification for Candle Fire Safety Labeling</i> .
Purpose	To work with ASTM on revising the voluntary standard to strengthen its safety provisions addressing hazards associated with candles and candle accessories.
Activities	<p>On December 2, 2020 staff provided the ASTM F15.45 subcommittee candle incident data. Staff participated in four task group meetings on December 15, 2020, January 22, 2021, February 12, 2021, and March 12, 2021, in which the task group analyzed candle incident data. The first task group meeting categorized the data based on the narratives, and during the later meetings, the task group additionally analyzed the data.</p> <p>Staff also participated in the quarterly subcommittee meeting January 26, 2021, during which the members reviewed recent recalls and reports on SaferProducts.gov and from other sources. The subcommittee meets four times a year to review recent recalls and reports in an effort to determine if the ASTM standards address the identified issue and to discuss gaps in the requirements that may need to be addressed.</p>
Next Action	Staff will participate in a quarterly review of recent candle related recalls and reports meeting on April 20, 2021, a data task group meeting on June 4, 2021, and a fire safety task group meeting in September 2021, to discuss possible requirement changes or additions to the ASTM standards.

Carbon Monoxide (CO) Alarms

Staff Contact	Brookman, Matthew
Voluntary Standard(s)	UL 2034, 4 th Edition <i>Single and Multiple Station Carbon Monoxide Alarms</i> NFPA 72, 2019 Edition <i>National Fire Alarm and Signaling Code</i>
Relevant Rulemaking	N/A

<i>Standard(s) Update</i>	The voluntary standards listed above were not updated during the reporting period.
<i>Purpose</i>	To work with UL, NFPA, and other stakeholders on potential revisions to voluntary standards and codes to strengthen safety provisions addressing hazards mitigated by carbon monoxide alarms.
<i>Activities</i>	Staff continues to work with the contractor on the Smoke and CO Alarm Survey. Biweekly meetings are held among the contractor, staff, and the main sponsors of the survey (NFPA and NIST), to discuss various strategies to restart the survey in 2021, and to track the progress of the survey.
<i>Next Action</i>	Staff will continue working with the contractor to complete the Smoke and CO alarms survey and provide the survey to interested stakeholders, when available. Staff will continue working with UL, NFPA, and other stakeholders on CO alarms and safety.

Carriages and Strollers

<i>Staff Contact</i>	Talcott, Kristen	
<i>Voluntary Standard(s)</i>	ASTM F833-19	<i>Standard Consumer Safety Specification for Carriages and Strollers</i>
<i>Relevant Rulemaking</i>	16 CFR part 1227, <i>Safety Standard for Carriages and Strollers</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with carriages and strollers.	
<i>Activities</i>	<p>Staff had no voluntary standards activity associated with the product category during the reporting period.</p> <p>On December 17, 2020, ASTM issued an F15 ballot containing an item to revise the parking brake requirements for the carriage and stroller standard. The ballot received no negative votes and one comment. Staff did not comment or vote on the ballot item.</p>	
<i>Next Action</i>	Staff will participate in the next ASTM subcommittee meeting, when scheduled.	

Changing Products

<i>Staff Contact</i>	Nesteruk, Hope	
<i>Voluntary Standard(s)</i>	ASTM F2388-18	<i>Standard Consumer Safety Specification for Baby Changing Products for Domestic Use</i>
<i>Relevant Rulemaking</i>	16 CFR part 1235, <i>Safety Standard for Baby Changing Products</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with baby changing products.	
<i>Activities</i>	In March 2021, staff reviewed and analyzed incident data associated with baby changing products. Staff found five new incidents since the last review and no new hazard patterns. Staff shared this information with ASTM on March 9, 2021.	
<i>Next Action</i>	Staff will participate in the next ASTM subcommittee meeting in May 2021.	

Child-Resistant Packages (CRP)

<i>Staff Contact</i>	Eilbert, Mark	
<i>Voluntary Standard(s)</i>	ASTM D3475-20	<i>Standard Classification of Child-Resistant Packages</i>
	ASTM F17-20	<i>Standard Terminology Relating to Primary Barrier Packaging</i>
	ASTM F3375-19	<i>Standard Test Method for Assessing Non-Metered Restricted Delivery Systems for Liquid Consumer Products</i>
<i>Relevant Rulemaking</i>	16 CFR part 1700, <i>Poison Prevention Packaging</i>	

Standard(s) Update	The voluntary and mandatory standards listed above were not updated during the reporting period.
Purpose	To work with ASTM on package design and development to ensure the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with child-resistant packaging.
Activities	Staff participated in the ASTM F02 subcommittee meetings on October 28, 2020, in which members discussed several standards requiring review, including many in the medical and food industries, that address flexible packaging. A work item was announced for a new standard to address the relationship between primary barrier packaging material attributes and performance.
Next Action	Staff will participate in the next ASTM subcommittee meeting, scheduled for April 2021.

Children's Folding Chairs and Stools

Staff Contact	Lee, Kevin	
Voluntary Standard(s)	ASTM F2613-21	<i>Standard Consumer Safety Specification for Children's Chairs and Stools</i>
Relevant Rulemaking	16 CFR part 1232, <i>Safety Standard for Children's Folding Chairs and Stools</i>	
Standard(s) Update	In February 2021, ASTM published ASTM F2613-21, the latest revision to the <i>Standard Consumer Safety Specification for Children's Chairs and Stools</i> . This revision updates the scope to include children's ottomans and to exclude infant and toddler rockers, which are covered under a different voluntary standard. In addition, this revision contains an editorial change to remove an extraneous test method.	
Purpose	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with children's folding chairs and stools.	
Activities	On September 17, 2020, ASTM issued a ballot containing an item to revise the scope of the voluntary standard to clarify that the scope does not include toddler rockers. In October 2020, the ballot results indicated that this ballot item had a negative vote, but it was subsequently withdrawn.	

On November 10, 2020, staff participated in the ASTM subcommittee meeting, where the attendees discussed the recent ballot results, and a task group on children's ottomans was formed. In addition, staff raised an issue in the current standard in which a test procedure was erroneously duplicated during the last revision. The subcommittee agreed it needed a ballot item to correct the issue.

On December 4, 2020, staff participated in the new ottoman task group meeting, and the task group agreed to add ottomans to the standard's scope.

On December 17, 2020, ASTM issued an F15 ballot containing two items for F2613: the removal of the extraneous test method, and a scope clarification regarding children's ottomans. Both items passed.

In February 2021, ASTM published a revised version of F2613, and pursuant to section 104(b)(4)(B) of the CPSIA, ASTM notified the CPSC of this revision on February 22, 2021.

Next Action Staff will participate in the next ASTM subcommittee meeting, scheduled for May 2021, and will submit a briefing package to the Commission containing staff recommendations regarding the update of F2612 and the direct final rule to update 16 CFR 1232.

Clothes Dryers

Staff Contact Lee, Arthur

Voluntary Standard(s) UL 2158, 5th Edition *Standard for Electric Clothes Dryers*

Relevant Rulemaking N/A

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with UL to revise the voluntary standard to strengthen its safety provisions addressing the hazards associated with clothes dryer fires.

Activities During the reporting period, staff began an evaluation program looking for any gaps in the current fire containment test in the voluntary standard. As of the end of the reporting period, this evaluation is not complete. The COVID-19 pandemic has delayed the testing portion of the evaluation.

Next Action Staff will continue the testing portion of the evaluation. Once completed, staff will summarize the findings of the evaluation and provide the summary to the UL 2158 STP.

Clothing Storage Units Tip Overs

Staff Contact Talcott, Kristen

Voluntary Standard(s) ASTM F2057-19 *Standard Safety Specification for Clothing Storage Units*

ASTM F3096-14 *Standard Performance Specification for Tipover Restraint(s) Used with Clothing Storage Unit(s)*

Relevant Rulemaking The Commission published an advance notice of proposed rulemaking (ANPR) in November 2017 (82 FR 56752, Nov. 30, 2017).

Standard(s) Update The voluntary standards and ANPR were not updated during the reporting period.

Purpose To work with ASTM to revise the voluntary standard to strengthen its safety provisions addressing the hazards associated with furniture tip-over incidents.

Activities On October 5, 2020, ASTM issued an F15 main committee ballot and an F15.42 subcommittee ballot. Between the ballots, there were five items containing revisions to various sections of ASTM F2057-19: warning language, instructional literature, stability testing, test figures, and test weight. All but the latter two had persuasive negative votes and were removed from the ballot. The two items that passed are currently on hold pending future balloting of other revisions.

During the reporting period, staff participated in several ASTM task group meetings that discussed potential revisions to the voluntary standard:

- October 1, 2020: Labeling task group
- October 23, 2020: Loaded and Multiple Drawers task group
- December 2, 2020: Scope task group
- December 9, 2020: Scope task group
- January 26, 2021: Loaded and Multiple Drawers task group
- March 11, 2021: Scope task group

Staff also participated in the subcommittee meeting on November 12, 2020. During the meeting, the October ballot results were reviewed, and various

task groups provided updates. Staff provided an update regarding the contractor work on furniture tip-overs.

On December 17, 2020 ASTM issued another F15 ballot containing an item to reapprove ASTM F3096 without changes. That ballot item received one negative vote that remained unresolved at the close of the reporting period.

In January 2021, staff issued a report entitled, *Product Instability of Tip-Over Injuries and Fatalities Associated with Televisions, Furniture and Appliances: 2020 Report* and notified the subcommittee.

Staff also participated in ISO TC 136 meetings during the reporting period on February 26, 2021, and March 19, 2021. During the meetings, the work group members discussed comments and edits to the draft standard, ISO/DIS 7170 *Furniture – Storage Units – Test methods for the determination of strength, durability, and stability*.

Next Action ASTM issued a ballot on April 1, 2021, which contained two items for ASTM F2057: a revision to the stability test to clarify the most onerous position for doors, and a revision to the scope regarding dresser heights. Staff will review the results of the ballot and attend the next subcommittee meeting scheduled for May 2021.

Commercial Cribs

Staff Contact Nesteruk, Hope

Voluntary Standard(s) ASTM F2710-19 *Standard Consumer Safety Performance Specification for Commercial Cribs*

Relevant Rulemaking 16 CFR part 1219, *Safety Standard for Full-Size Cribs*, and CFR part 1220, *Safety Standard for Non-Full-Size Baby Cribs*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with cribs in commercial settings, such as hotels and child care centers.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

Next Action Staff will conduct an annual review of incident data associated with commercial cribs and communicate the results to the ASTM subcommittee. Staff will also participate in the next subcommittee or task group meeting, when scheduled.

Crib Bumpers (Infant Bedding)

Staff Contact Smith, Tim

Voluntary Standard(s) ASTM F1917-20 *Standard Consumer Safety Performance Specification for Infant Bedding and Related Accessories*

Relevant Rulemaking 16 CFR part 1240, *Safety Standard for Crib Bumpers/Liners* (Proposed Rule)

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM on revising the voluntary standard to: (1) strengthen its safety provisions addressing hazards, and (2) form the basis of a federal standard intended to reduce hazards associated with crib bumpers.

Activities Staff attended a task group meeting on February 17, 2021 where the objective was to focus on possible changes to ASTM F1917 that would bring it and the proposed rule into closer alignment. Staff updated the task group with the current timeframe related to the Final Rule.

On March 31, 2021, staff participated in a meeting where the airflow task group met to discuss the development of an airflow requirement for crib bumpers.

Next Action Staff will participate in the next ASTM subcommittee meeting, scheduled for May 2021. Staff will also deliver a final rule briefing package to the Commission in September 2021.

Crib Mattresses (including Supplemental and Aftermarket Mattresses)

Staff Contact Nesteruk, Hope

<i>Voluntary Standard(s)</i>	ASTM F2933-19 <i>Standard Consumer Safety Performance Specification for Crib Mattresses</i>
<i>Relevant Rulemaking</i>	<p>Petition CP 15-2: <i>Petition Requesting Ban on Supplemental Mattresses for Play Yards with Non-Rigid Sides</i></p> <p>NPR, <i>Safety Standard for Crib Mattresses</i> (85 FR 67906)</p>
<i>Standard(s) Update</i>	The NPR for the <i>Safety Standard for Crib Mattresses</i> was published in the <i>Federal Register</i> (85 FR 67906) on October 26, 2020.
<i>Purpose</i>	To work with ASTM to revise the voluntary standard to: (1) strengthen its safety provisions addressing hazards, and (2) form the basis of a federal standard intended to reduce hazards associated with crib and supplemental mattresses.
<i>Activities</i>	<p>The NPR for crib mattresses was published in the <i>Federal Register</i> on October 26, 2020. Staff has reviewed the submitted comment in preparation for drafting a final rule briefing package.</p> <p>Staff participated in the ASTM subcommittee meeting on November 10, 2020. During the meeting, staff reported on the NPR and provided a link to regulations.gov, reminding the subcommittee that the comment period ends on January 11, 2021. Staff also answered questions from subcommittee members about the NPR content.</p> <p>Staff also participated in the following task group meetings during the reporting period:</p> <ul style="list-style-type: none"> • Corner Gap Task Group on December 3, 2020 and February 25, 2021 • Cyclic Testing Task Group on December 8 and 9, 2020 and March 4, 2021 • Non-Segmented Aftermarket Mattresses on December 18, 2020 • Mattress Firmness on February 10, 2021. <p>Staff participated in another subcommittee meeting held on February 16, 2021, where the task groups all provided updates.</p> <p>On March 12, 2021, ASTM issued an F15 ballot containing two items pertaining to ASTM F2933-19. A member of CPSC's Human Factor's Directorate subsequently received authorization to vote on the ballot items.</p>
<i>Next Action</i>	Staff will cast a vote on the recent ballot items and participate in the next ASTM subcommittee meeting scheduled for April 22, 2021.

Electric Heaters

Staff Contact	Lee, Arthur
Voluntary Standard(s)	UL 1278, 4 th Edition <i>Standard for Movable and Wall-or Ceiling-Hung Electric Room Heaters</i>
Relevant Rulemaking	N/A
Standard(s) Update	The voluntary standard listed above was not updated during the reporting period.
Purpose	To work with UL to address hyperthermia deaths caused by portable and room heaters
Activities	<p>Arthur Lee serves as the UL 1042 STP chair for the hyperthermia task group.</p> <p>Staff chaired and participated in five hyperthermia task group meetings on October 1, 2020, October 29, 2020, December 10, 2020, February 2, 2021, and March 15, 2021. The task group's objective is to develop proposals for portable heaters in UL 1278 to address incidents of hyperthermia from use of portable electric heaters in small rooms. Staff raised this issue to UL in response to the March 2019 staff report, "<i>A Preliminary Analysis of Hyperthermia Deaths Associated with Electric Room/Space Heaters.</i>" The task group is focusing on proposals for labeling and educational campaigns because the task group determined that the number of incidents per year (2 or less) do not warrant any new performance requirements at this time. The task group agreed that heaters rated at 850 W or more require hyperthermia labeling. This number is based on staff testing showing that an 868 W heater can raise the temperature from 70 F to 100 F in a 490 FT³ room.</p> <p>Staff also participated in a labeling sub-task group meeting on October 22, 2020 where possible labeling requirements were discussed.</p>
Next Action	Staff will continue to lead the task group and actively participate in developing proposals to UL 1278 to address the risk of hyperthermia. The next task group meeting is planned for May 2021.

Fire Safety of Portable Fuel Containers and Gasoline Cans

Staff Contact Ayers, Scott

<i>Voluntary Standard(s)</i>	ASTM F3429/ASTM F3429M-20	<i>Standard Specification for Performance of Flame Mitigation Devices Installed in Disposable and Pre-Filled Flammable Liquid Containers</i>
	ASTM F852/ASTM F852M-20	<i>Standard Specification for Portable Gasoline Kerosene, and Diesel Containers for Consumer Use</i>
	ASTM F3326-19a	<i>Standard Specification for Flame Mitigation Devices on Portable Fuel Containers</i>
	ASTM F839-15	<i>Standard Specification for Cautionary Labeling of Portable Gasoline, Kerosene, and Diesel Containers for Consumer Use</i>
	UL30, 9 th Edition	<i>Standard for Metal Safety Cans</i>
<i>Relevant Rulemaking</i>	Portable Fuel Container Safety Act of 2020 (Pending Commission Decision)	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM and UL to improve or develop fire safety requirements for flame mitigation devices in various type of portable fuel containers, such as gasoline containers.	
<i>Activities</i>	Staff participated in two ASTM F15.10 task group meetings on possible revisions to gasoline container labeling requirements in ASTM F839, one on October 8, 2020, and the other on October 29, 2020. The task group is interested in updating the labeling on gasoline containers and harmonizing labeling requirements with Canada. Staff provided comments to the task group on the proposed changes.	
	Staff participated in four UL 30 STP meetings on November 17, 2020, December 7, 2020, February 4, 2021, and February 23, 2021. The UL 30 STP is preparing a new draft UL 30 joint standard, which incorporates requirements from the current UL 30, UL 1313, and ULC ORD-30 voluntary standards addressing safety cans, a type of portable flammable liquid container. The new draft of the UL 30 joint standard will include requirements for flame mitigation devices. Staff also participated in five UL 30 task group meetings on February 11, 2021, March 4, 2021, March 11, 2021, March 19, 2021, and March 26, 2021. This task group is developing the proposed requirements for flame mitigation devices. Staff proposed developing a test protocol for safety cans, based on ASTM F3429, with pre-conditioning samples before testing, similar to ASTM F3326.	

In September 2020, CPSC executed a contract to perform a modified round-robin study of the test protocol in ASTM F3429. The contractor is conducting the work in FY 2021 and subcontracting with two other laboratories to perform the testing specified in F3429 on the same samples and to compare results.

ASTM appointed a new F15.72 subcommittee chair in December 2020. Staff participated in two ASTM F15.72 subcommittee meetings on December 17, 2020, and February 17, 2021. The subcommittee discussed the scope of the subcommittee, the current standards, and the draft standard. The subcommittee was initially formed to develop requirements related to the ingestion of torch fuel and lamp oil. Over time, portable fireplaces and flame-mitigation devices were added to the subcommittee activities. The subcommittee members in the meeting discussed broadening the scope of the subcommittee, but not changing the scope of the current standards and draft standard. On March 11, 2021, ASTM balloted a name change for the subcommittee to “Prefilled Flammable and Combustible Liquid Containers.”

In December 2020, the Portable Fuel Container Safety Act of 2020 was enacted, requiring the CPSC to promulgate a final rule, mandating flame mitigation devices, in portable fuel containers. The Act requires that the rule be published no later than 30 months after the date of enactment of this Act, unless the Commission determines that a voluntary standard for a class of portable fuel container exists and is in effect 18 months after the date of enactment of this Act (June 2022).

Next Action Staff will continue to work with ASTM F15.10 on possible revisions to F839; staff will also work with ASTM F15.10 on possible revisions to for flame mitigation requirements or other fire safety requirements in ASTM F852 and ASTM F3326. Staff will continue to work with UL 30 in developing flame mitigation requirements for the next edition of UL 30. Staff will provide the results of the modified round-robin testing to ASTM after the work is completed. Staff intends to seek to renew internal permission to chair the F3429 task group and to secure voting rights on applicable gasoline container standards.

Fireworks

Staff Contact Valliere, Rodney

<i>Voluntary Standard(s)</i>	APA 87-1A, 2018 Version	<i>Standard for Construction, Classification, Approval, and Transportation of Consumer Fireworks</i>
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Relevant Rulemaking	16 CFR § 1500.17, <i>Banned Hazardous Substances</i> and 16 CFR part 1507, <i>Firework Devices</i>
Standard(s) Update	On December 28, 2020, APA finalized APA 87-1A, the new <i>Standard for Construction, Classification, Approval, and Transportation of Consumer Fireworks</i> , following action by the U.S. DOT. Previously, all fireworks requirements were contained in APA 87-1, 2001. Now APA has three separate standards covering consumer fireworks (APA 87-1A): (1) display fireworks (APA 87-1B), (2) entertainment, and (3) technical pyrotechnics (APA 87-1C).
Purpose	To work with AFSL and APA on revising the voluntary standards to strengthen safety provisions addressing hazards associated with consumer fireworks.
Activities	<p>Staff had no voluntary standards activity associated with the product category during the reporting period.</p> <p>The U.S. DOT published a final rule in November 2020 (85 Fed. Reg. 75680 (Nov. 25, 2020)), incorporating by reference APA 87-1A (Jan. 1, 2018 edition), but excluding Appendices II through VI, to replace the previous incorporation by reference of APA 87-1 (2001). The same rule incorporated by reference APA 87-1B and C, as well. APA 87-1A contains requirements for consumer fireworks, the other two standards (B and C) pertain to other types of fireworks.</p>
Next Action	Staff will participate in the AFSL virtual meeting on April 15, 2021. Staff will continue to participate in APA.

Flammable Refrigerants

Staff Contact	Ayers, Scott
Voluntary Standard(s)	UL/CSA 60335-2-24, 2 nd Edition <i>Safety Requirements for Household and Similar Electrical Appliances, Part 2: Particular Requirements for Refrigerating Appliances, Ice-Cream Appliances, and Ice-Makers</i>

UL/CSA 60335-2-40, 3 rd Edition	<i>Household and Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers</i>
UL/CSA 60335-2-89, 1 st Edition	<i>Standard for Safety for Household and Similar Electrical Appliances, Part 2: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor</i>
ASHRAE 15	<i>Safety Standard for Refrigeration Systems</i>
ASHRAE 15.2P	Potential new voluntary standard for refrigeration systems in residential applications

Relevant Rulemaking

N/A

Standard(s) Update

The voluntary standards listed above were not updated during the reporting period.

Purpose

To work with SDOs to revise the voluntary standards to strengthen the safety provisions addressing hazards associated with flammable refrigerants (also known/marketed as “low global warming potential refrigerants” and “natural refrigerants”) used in household refrigerators, freezers, and air conditioners.

Activities

Staff participated in three meetings on October 2, 2020, October 21, 2020, and November 11, 2020, looking at gaps and inconsistencies among three flammable refrigerant standards, ASHRAE Standard 15, the draft new ASHRAE Standard 15.2P, and UL/CSA 60335-2-40.

Staff participated in one meeting on the draft new ASHRAE Standard 15.2P on January 26, 2021. The committee updated the participants on the status of the draft standard, sharing that the third Publication Public Review (PPR) would be sent out within a month. On February 23, 2021 ASHRAE released the third PPR for the draft ASHRAE Standard 15.2P.

Staff participated in nine meetings focused on revising the current edition of UL/CSA 60335-2-40 on October 12, 2020, October 19, 2020, November 2, 2020, November 16, 2020, November 30, 2020, January 11, 2021, February 1, 2021, February 22, 2021, and March 8, 2021. UL received more than 180 proposed changes to the current edition. The group aims to complete the revision in time for the next mechanical code cycle. To meet this timeline, the first preliminary public review needs to occur by September 2021. Staff supports a proposal by groups representing fire fighters and similar fire services to change the safety symbols.

Staff participated in two meetings focused on revising the current edition of UL/CSA 60335-2-24, on February 22, 2021, and March 23, 2021. The fire service made similar proposals to this group on the required safety symbols as with UL/CSA 60335-2-40. Staff also supports this change in this standard.

Staff participated in one Safe Refrigerant Transition Task Force (SRTTF) meeting on December 11, 2020. This group was originally formed to educate stakeholders on the transition to flammable refrigerants through a variety of methods, but it has evolved to a group focused on outreach to the fire service.

Staff participated in a meeting with ASHRAE, held over 3 days regarding possible odorants in flammable refrigerants. The meetings were held on January 25, 2021, January 26, 2021, and February 1, 2021. During the meetings, staff informed ASHRAE of the CPSC contract to research possible odorants in flammable refrigerants. The CPSC contract is intended to complement other research ASHRAE is conducting on possible odorants in flammable refrigerants.

Next Action Staff continues to participate in developing codes and voluntary standards intended to allow greater quantities of flammable refrigerants in refrigeration and HVAC equipment. Staff intends to continue participating in industry meetings related to revising UL/CSA 60335-2-24, UL/CSA 60335-2-40, UL/CSA 60335-2-89, and ASHRAE Standard 15.2P. Staff intends to comment on the Publication Public Review of ASHRAE Standard 15.2P. Staff will work with the contractor to study the compatibility of possible flammable refrigerants with various odorants, lubricants, and metal hardware.

Flooring (Slips, Trips, and Falls)

Staff Contact Bowley, Susan

Voluntary Standard(s) ASTM F2508-16e¹ *Standard Practice for Validation, Calibration, and Certification of Walkway Tribometers Using Reference Surfaces*

ASTM WK60578 Potential new voluntary standard test method for walkway friction testing

Relevant Rulemaking Petition CP 16-1, Labeling Requirements Regarding Slip Resistance of Floor Coverings (Denied) and Petition CP 18-2 Floor Coverings (Denied)

<i>Standard(s) Update</i>	The voluntary standards and the petitions listed above were not updated during the reporting period.
<i>Purpose</i>	To work with ASTM and NFSI on developing a new voluntary standard or revising the existing voluntary standard to reduce or prevent consumer slips, trips, and falls.
<i>Activities</i>	<p>The NFSI B101 committee develops multiple standards related to flooring safety. As part of the continued efforts derived from the floor surface labeling petition, to develop our understanding of floor safety, staff participated in a floor surface standard development meeting on January 29, 2021. This was the first time CPSC staff participated with the NFSI B101 committee. The committee discussed the status and updates on their existing standards. Various materials were mentioned during the meeting, such as the human ambulation study, as well as a NIOSH publication referencing the B101.1 standard. Staff will review these materials to increase our understanding of floor surface safety.</p> <p>On February 2, 2021, staff participated in an ASTM F13 meeting, in which updates on the development of subcommittee standards were discussed. The subcommittee is actively researching tile testing and writing and reviewing human subject data research for future publication in an ASTM journal. The subcommittee also discussed how various tribometers provide different output values and how the value of a specific device is unique to that device and setup.</p>
<i>Next Action</i>	Staff will participate in the next NFSI B101 and ASTM F13 committee meetings, when scheduled.

Frame Child Carriers

<i>Staff Contact</i>	Lee, Kevin	
<i>Voluntary Standard(s)</i>	ASTM F2549-14a	<i>Standard Consumer Safety Specification for Frame Child Carriers</i>
<i>Relevant Rulemaking</i>	16 CFR part 1230, <i>Safety Standard for Frame Child Carriers</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels	

addressing hazards associated with frame child carriers.

Activities Staff participated in two ASTM task group meetings on October 6, 2020, and November 2, 2020, as well as the semi-annual ASTM subcommittee meeting held on November 9, 2020. During the meetings, incident data supplied by staff, were reviewed. In addition, the members of tasks groups working on ad hoc warnings language and stability, discussed and reviewed proposals for new ballot items. At the close of the reporting period, no ballot items for frame child carriers had been issued.

Next Action Staff will participate at the subcommittee meeting scheduled for May 2021.

Full-Size Cribs

Staff Contact Nesteruk, Hope

Voluntary Standard(s) ASTM F1169-19 *Standard Consumer Safety Specification for Full-Size Cribs*

Relevant Rulemaking 16 CFR part 1219, *Safety Standard for Full-Size Cribs*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM on revising the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with full-size cribs.

Activities Staff participated in the ASTM subcommittee meeting on November 10, 2020. A subcommittee member raised a question about a certain type of toe hold on ornamental pieces outside the crib bars that could form a non-horizontal toe hold. A task group was formed to look at the issue, and staff joined the task group.

The toe hold task group meet on January 6, 2021. The purpose of the meeting was to discuss the use of the word “horizontal” with respect to toe holds. The goal was to consider deleting “horizontal,” which is viewed to be subjective and may not address all toe holds. The task group chair discussed international standards, none of which use “horizontal.” Staff reviewed pictures of various crib designs with non-horizontal toe holds and agreed to talk with staff test engineers for input.

Next Action Staff will participate in the next ASTM subcommittee meeting, scheduled for May 2021. Staff will also provide input from test engineers for the toe hold task group.

Gas Appliances, CO Sensors

Staff Contact Jordan, Ronald

Voluntary Standard(s) ANSI Z21.47-2016/ *Gas-Fired Central Furnaces*
CSA 2.3-2016)

ANSI Z21.13-2017/ *Gas-Fired Low Pressure Steam and Hot Water Boilers*
CSA 4.9-2017

ANSI Z21.86-2016/ *Vented Gas-Fired Space Heating Appliances*
CSA2.32-2016

Relevant Rulemaking The Commission published an ANPR for Performance Requirements for Residential Gas Furnaces and Boilers, in the *Federal Register* on August 19, 2019 (84 FR 42847).

Standard(s) Update The voluntary standards and the ANPR listed above were not updated during the reporting period.

Purpose To work with technical committees on revising the voluntary standards to strengthen safety provisions addressing hazards associated with carbon monoxide risks due to failure modes, such as disconnected vents and partially blocked vents.

Activities Staff continued to monitor the relevant voluntary standards for any revisions that would strengthen or weaken protection from CO exposure risks. Staff continued to develop briefing package materials for the NPR for Performance Requirements for Residential Gas Furnaces and Boilers and to manage two contracts that support that effort.

Next Action Staff will update the voluntary standard bodies, if appropriate, on the status of the NPR and related CPSC activities later in the fiscal year. Staff will continue to monitor or participate with CSA and any other SDOs interested in gas appliance safety and CO sensors.

Gas Ranges

<i>Staff Contact</i>	Ayers, Scott	
<i>Voluntary Standard(s)</i>	ANSI Z21.1-2016/ CSA 1.1-2016	<i>Household Cooking Gas Appliances</i>
<i>Relevant Rulemaking</i>	N/A	
<i>Standard(s) Update</i>	The voluntary standard listed above was not updated during the reporting period.	
<i>Purpose</i>	To work with CSA to revise the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard addresses hazards associated with gas ranges.	
<i>Activities</i>	<p>Scott Ayers continues to serve as the CSA TSC chair for domestic gas ranges.</p> <p>Staff chaired and participated in a CSA TSC meeting on December 10, 2021. During this meeting, staff informed the TSC that gas range incident data for the TSC to review should be available in 2021. The chair of the CSA Manual Valve TSC, who is also a member of the Gas Range TSC, requested that the data be shared with the Manual Valve TSC.</p> <p>On January 8, 2021, staff provided the CSA TSC with the gas range incident data, covering incidents from November 1, 2015 through October 31, 2019.</p>	
<i>Next Action</i>	Staff will continue to chair and participate in the TSC meetings. Staff will work with the TSC to establish a task group to categorize and possibly analyze the incident data. Staff will seek to renew internal permission to continue to serve as TSC chair.	

Gasoline Containers, Child Resistance

<i>Staff Contact</i>	Ayers, Scott	
<i>Voluntary Standard(s)</i>	ASTM F2517-17	<i>Standard Specification for Determination of Child Resistance of Portable Fuel Containers for Consumer Use</i>

ASTM F852/ *Standard Specification for Portable Gasoline*
ASTM F852M-20 *Kerosene, and Diesel Containers for Consumer Use*

Relevant Rulemaking 16 CFR part 1460, *Children's Gasoline Burn Prevention Act Regulation*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM to revise the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with the poisoning of children from gasoline from portable fuel containers.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

Next Action Staff will participate in a subcommittee meeting expected to occur in summer 2021. Staff will participate in a task group empaneled to work on revising the adult testing requirements of F2517, when scheduled. Currently, this adult testing task group activity is not expected to begin before October 2021, when task group members are able to travel.

Gates and Expandable Enclosures

Staff Contact Nesteruk, Hope

Voluntary Standard(s) ASTM F1004-19 *Standard Consumer Safety Specification for Expansion Gates and Expandable Enclosures*

Relevant Rulemaking 16 CFR part 1239, *Safety Standard for Gates and Enclosures*

Standard(s) Update The final rule, *Safety Standard for Gates and Enclosures*, 16 CFR part 1239 will be effective on July 6, 2021. ASTM did not update the voluntary standard during the reporting period.

Purpose To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with expansion gates and expandable enclosures.

Activities Staff had no voluntary standards activity associated with the product

category during the reporting period.

Next Action Staff will participate in the next ASTM subcommittee meeting scheduled for May 2021.

Hand-Held Infant Carriers

Staff Contact Nesteruk, Hope

Voluntary Standard(s) ASTM F2050-19 *Standard Consumer Safety Performance Specification for Hand-Held Infant Carriers*

Relevant Rulemaking 16 CFR part 1225, *Safety Standard for Hand-Held Infant Carriers*

Standard(s) Update The direct final rule to update the corresponding federal regulation, 16 CFR part 1225, *Safety Standard for Hand-Held Infant Carriers*, to incorporate by reference ASTM F2050-19, became effective on January 1, 2021.

Purpose To work with ASTM on revising the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with hand-held infant carriers.

Activities On December 23, 2020, staff participated in a task group meeting dealing with the slip-resistance test procedure. The chair began the meeting by stating that one of the test labs brought up the issue that there appear to be some inconsistencies in the slip-resistance testing. The group agreed to create a questionnaire on the test procedure for the labs to answer regarding surfaces and cleaning. Staff will participate in the questionnaire. Once the chair has information from the test labs, the group will review the results and identify factors that need to be addressed for consistency.

Next Action Staff will participate in the task group and also in the next ASTM subcommittee meeting, when scheduled.

High Chairs

Staff Contact Marques, Stefanie

<i>Voluntary Standard(s)</i>	ASTM F404-20 <i>Standard Consumer Safety Specification for High Chairs</i>
<i>Relevant Rulemaking</i>	16 CFR part 1231, <i>Safety Standard for High Chairs</i>
<i>Standard(s) Update</i>	In December 2020, ASTM published ASTM F404-20, the latest revision to the <i>Standard Consumer Safety Specification for High Chairs</i> . This revision includes revisions to the stability requirement for reclining high chairs.
<i>Purpose</i>	To work with ASTM on revising the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing high chair hazards.
<i>Activities</i>	<p>Staff participated in the ASTM subcommittee for high chairs on November 9, 2020. During the meeting, the subcommittee chair announced that the negatives on previous ballot items pertaining to reclining high chairs have been resolved and that the revised standard would be published in December 2020. In addition, a number of new business items were discussed during the subcommittee meeting, including new figures for the reclined seat high chair stability testing procedure. Staff and the group agreed that the revisions added clarity to the new test methods, but they could be further improved. Therefore, a task group was formed to revise the figures, and staff will participate. The task group will also look at the terminology for restraint systems. The subcommittee also discussed a test method for placement of test weights for forward and rearward stability in high chairs that have different seat designs. A task group was formed to address this issue, and staff will participate.</p> <p>In December 2020, ASTM approved a revised version of F404, which was published in January 2021. Pursuant to section 104(b)(4)(B) of the CPSIA, on January 4, 2021, ASTM notified CPSC of this revision.</p> <p>On March 17, 2021, staff sent to the Commission a briefing package, recommending that the Commission accept the revised voluntary standard, and issue a direct final rule updating the reference to the ASTM voluntary standard cited in the high chair standard 16 CFR part 1231. On March 23, 2021, the Commission voted unanimously (4-0) to approve publication of a <i>Federal Register</i> notice to issue a direct final rule to update the ASTM standard incorporated by reference in the Safety Standard for High Chairs, codified at 16 CFR part 1231.</p>
<i>Next Action</i>	The <i>Federal Register</i> notice for the direct final rule was published on April 2, 2021. The rule is effective on July 3, 2021, unless CPSC receives a significant adverse comment. Staff will participate in the next ASTM high

chair subcommittee meeting, scheduled for May 2021.

Infant Bath Seats

<i>Staff Contact</i>	Kish, Celestine	
<i>Voluntary Standard(s)</i>	ASTM F1967-19	<i>Standard Consumer Safety Specification for Infant Bath Seats</i>
<i>Relevant Rulemaking</i>	16 CFR part 1215, <i>Safety Standard for Infant Bath Seats</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM on revising the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with infant bath seats.	
<i>Activities</i>	To monitor the adequacy of the mandatory standard and its referenced voluntary standard, staff conducted the annual review of incident data associated with bath seats in March 2021, and communicated the results to ASTM. Staff did not identify any new hazard patterns for this product since the last review.	
<i>Next Action</i>	Staff will supply incident data on infant bath seats to the ASTM subcommittee and will participate in the next subcommittee or task group meeting, when scheduled.	

Infant Bath Tubs

<i>Staff Contact</i>	Kish, Celestine	
<i>Voluntary Standard(s)</i>	ASTM F2670-18	<i>Standard Consumer Safety Specification for Infant Bath Tubs</i>
<i>Relevant Rulemaking</i>	16 CFR part 1234, <i>Safety Standard for Infant Bath Tubs</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	

Purpose	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with infant tubs.
Activities	To monitor the adequacy of the mandatory standard and its referenced voluntary standard, staff conducted the annual review of incident data associated with infant bath tubs in March 2021, and staff communicated the results to ASTM. Staff did not identify any new hazard patterns for this product since the last review.
Next Action	Staff will provide incident data on infant bath tubs to the ASTM subcommittee and will participate in the next ASTM subcommittee meeting, when scheduled.

Infant Bouncer Seats

Staff Contact	Wanna-Nakamura, Suad	
Voluntary Standard(s)	ASTM F2167-19	<i>Standard Consumer Safety Specification for Infant Bouncer Seats</i>
Relevant Rulemaking	16 CFR part 1229, <i>Safety Standard for Infant Bouncer Seats</i>	
Standard(s) Update	The voluntary and mandatory standards listed above were not updated during the reporting period.	
Purpose	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with infant bouncer seats.	
Activities	Staff had no voluntary standards activity associated with the product category during the reporting period.	
Next Action	Staff will review incident data associated with infant bouncers and attend the next subcommittee meeting, when scheduled.	

Infant Inclined Sleep Products

Staff Contact	Kish, Celestine
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<i>Voluntary Standard(s)</i>	ASTM F3118-17a <i>Standard Consumer Safety Specification for Infant Inclined Sleep Products</i>
<i>Relevant Rulemaking</i>	Supplemental NPR <i>Safety Standard for Infant Sleep Products</i> (84 FR 60949)
<i>Standard(s) Update</i>	The voluntary standard and the SNPR listed above were not updated during the reporting period.
<i>Purpose</i>	To work with ASTM on revising the voluntary standard to strengthen its safety provisions addressing hazards to form the basis of a federal standard intended to reduce hazards associated with infant sleep products.
<i>Activities</i>	<p>Staff participated in the ASTM subcommittee meeting held on November 10, 2020. During the meeting, staff provided an update on the SNPR. Also, during the meeting, the Title/Scope, Labeling and Other Juvenile Products task group provided updates.</p> <p>In December 2020, ASTM issued an F15.18 Subcommittee ballot containing one item to revise the introduction, scope, and title of ASTM F3117, removing the word “inclined.” The ballot item received many negative votes.</p> <p>On January 27, 2021 staff participated in an ASTM subcommittee meeting where the previous ballot results were reviewed. The subcommittee found that many of the negative votes were persuasive, and the item was removed from ballot and sent back to the task group for additional work.</p>
<i>Next Action</i>	Staff will participate in the next ASTM subcommittee meeting, scheduled for May 2021. Staff will also submit a final rule package to the Commission in 2021, and staff will notify the subcommittee of the package’s availability.

Infant Swings

<i>Staff Contact</i>	Torres, Carlos
<i>Voluntary Standard(s)</i>	ASTM F2088-20 <i>Standard Consumer Safety Specification for Infant and Cradle Swings</i>
<i>Relevant Rulemaking</i>	16 CFR part 1223, <i>Safety Standard for Infant Swings</i>
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose

To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with infant swings.

Activities

In October, pursuant to section 104(b)(4)(B) of the CPSIA, ASTM notified the CPSC of the 2020 revision to ASTM F2088. In response to the notification, staff prepared a briefing memo to update 16 CFR part 1223, in accordance with Pub. L. No. 112-28. On March 5, 2021, staff sent a letter to inform ASTM that the Commission had accepted the revised voluntary standard and has published a direct final rule in the *Federal Register*, to update the Safety Standard for Infant Swings, 16 CFR part 1223, to incorporate by reference ASTM F2088-20 (86 Fed. Reg. 4961 (Jan. 19, 2021)).

Staff also participated in the ASTM subcommittee meeting held on November 10, 2020. Staff provided a brief overview about the update to the mandatory rule for infant swings (the Public Law No. 112-28 update). In addition, the following task groups provided reports:

- Strangulation – Staff reviewed the letter sent to ASTM about a strangulation issue. The Task Group was re-formed and staff will participate.
- Proposed age-grading change for cradle swings – A member proposed a change to the age grading to stop use when child begins to roll over. A task group will consider this issue, and staff will participate.
- Scope clarification – A task group was formed, and staff will participate.
- Stability test – A subcommittee member suggested a clarification to the test. A task group was formed, and staff is on the task group.

On March 12, 2021, ASTM issued an F15 ballot containing three revision items for the swing standard: (1) stability testing, (2) ad hoc battery language, and (3) age/developmental information. The ballot results were not known at the end of the reporting period.

Next Action

The effective date for the direct final rule, 16 CFR part 1223, is April 3, 2021, after the reporting period. Staff will review incident data and report the results to ASTM and will also participate in the next ASTM subcommittee meeting, scheduled for May 2021.

Infant Walkers

Staff Contact Mordecai, Benjamin

Voluntary Standard(s) ASTM F977-18 *ASTM Standard Consumer Safety Performance Specification for Infant Walkers*

Relevant Rulemaking 16 CFR part, 1216 *Safety Standard for Infant Walkers*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with infant walkers.

Activities On February 26, 2021, staff participated in a task group meeting to discuss potential new ballot items for the standard. Before the meeting, staff had communicated with the subcommittee chair regarding some of the potential new revisions. Five major sections from the standard were discussed for balloting:

- Occupant Leaning Outward Over Edge of Walker Test;
- Walker and Dummy Positioning for Step Tests;
- Forward Tip Resistance;
- A new section in the annex detailing the stair test procedure; and
- An update on the specified weight for the Mark II CAMI dummy used for testing.

The task group reviewed the draft ballot prepared by the subcommittee chair and discussed the provisions. Staff raised questions on the origins of the stability index as it is currently defined; it was explained it was developed many years ago, based on test data that identifies potentially hazardous walkers.

On March 12, 2021, ASTM issued an F15 ballot with five items relating to the infant walker standard. These ballot items pertain to the five sections discussed at the last task group meeting. The ballot results were not known as of the end of the reporting period.

Next Action Staff will review the ballot items and participate in the next ASTM subcommittee meeting scheduled for May 2021.

Internet of Things (IoT)/Connected Products

Staff Contact Lee, Simon

Voluntary Standard(s) UL 5500, 1st Edition *Remote Software Updates*
UL 2900-1, 1st Edition *Software Cybersecurity for Network-Connectable Devices*
ASTM F3463-20 *Standard Guide for Ensuring the Safety of Connected Consumer Products*

Relevant Rulemaking N/A

Standard(s) Update In October 2020, ASTM published ASTM F3463-20, the new *Standard Guide for Ensuring the Safety of Connected Consumer Products*.

Purpose To work with UL, ASTM, and other stakeholders to revise existing voluntary standards and develop new voluntary standards to address hazards associated with connected consumer products.

Activities Staff participated in two subcommittee meetings on January 22, 2021, and on March 5, 2021. The subcommittee reviewed previous comments and discussed potential future revisions to F3463. Staff proposed that F3463 should reference ANSI/CTA-2088, *Baseline Cybersecurity Standard for Devices and Device Systems*; and the subcommittee agreed to list the ANSI/CTA-2088 in the appendix. The subcommittee, with staff input, also agreed to: change the definition of a “consumer product” to align with the Consumer Product Safety Act (CPSA); clarify that the voluntary standard is a guide, thus conformity assessment is not applicable; and include other or updated cybersecurity references in the document’s appendix.

On February 2, 2021, staff participated in a meeting with AHAM, reviewing a variety of topics of interest to AHAM and its members. During the meeting, AHAM indicated that UL 5500 will gradually get integrated into specific, end-product voluntary standards, but UL 2900 will not be referenced in individual, end-product voluntary standards.

Next Action Staff will continue to work with the ASTM F15.75 subcommittee to monitor ASTM F3463-20 and update the standard, as needed. Staff will participate in the next subcommittee meeting, scheduled for April 9, 2021.

Liquid Laundry Packets

Staff Contact Hurley, Jill

Voluntary Standard(s) ASTM F3159-15 *Standard Safety Specification for Liquid Laundry Packets*

Relevant Rulemaking N/A

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with ASTM on revising the voluntary standard to strengthen its safety provisions addressing hazards associated with liquid laundry detergent packets.

Activities Staff attended a scope task group meeting on October 5, 2020, with the goal of determining whether the scope of the ASTM voluntary standard should be expanded to include other populations, mainly seniors. The American Cleaning Institute reviewed data for populations 50 years or older. Staff was asked to provide comparable NEISS data for the next task group meeting.

On October 6, 2020, the subcommittee members met to review laundry packet exposures for the year 2019, involving children under the age of 6 years. Data were presented by the Rocky Mountain Poison and Drug Center on behalf of the American Cleaning Institute, and by Epidemiology staff from CPSC. Incidents were compared to the baseline year of 2012, and to post-implementation periods of 2017 through 2019. Next, the Scope Task Chair summarized the task group's last meeting, and the incident data regarding unintentional liquid laundry packet exposures in populations 50 years and older were reviewed. Review of CPSC data for this adult population is pending submission. The Subcommittee task chair requested all task groups meet to discuss the data presented at this meeting to determine if proposals should be put forward to ballot revisions to the ASTM F3159 standard.

On December 3, 2020, the scope task group met again and the NEISS data results for senior exposures were reviewed.

On January 5, 2021, staff sent a letter and attached report to ASTM, the fifth in a series of reports, regarding ER visits associated with liquid laundry packets in the post-implementation phase of the standard.

On January 19, 2021, and March 8, 2021, staff participated in the Additional Measures task group meetings to determine the “how and why” child exposures are continuing to happen.

Next Action Staff will participate in the next scope task group meeting and at the next subcommittee meeting, both scheduled for April 21, 2021.

LP Gas Appliances

Staff Contact Kim, Yeon Souk

Voluntary Standard(s) ANSI Z21.97-2017/ *Outdoor Decorative Gas Appliances*
CSA 2.41-2017

ANSI Z21.58b-2018 *Outdoor Cooking Gas Appliances*
/CSA 1.6-2018

NFPA 58, 2020 Edition *Liquefied Petroleum Gas Code*

Relevant Rulemaking N/A

Standard(s) Update The voluntary standards listed above were not updated during the reporting period.

Purpose To work with CSA, NFPA, and other stakeholders to revise the voluntary standards to strengthen safety provisions and to ensure that the voluntary standards address hazards associated with LP-gas appliances, such as gas grills and fire pits.

Activities On February 25, 2021, staff participated in a task force meeting to discuss adding a requirement to ANSI Z21.97 to prevent debris from clogging the venturi in outdoor gas appliances. Staff supported adding a requirement to use a screen. However, other task force members suggested the screen could lead to inconsistent fuel and air flows adding that this is inconsistent with other international standards. The task force agreed to propose adding labeling and consumer instructions to check the venturi for debris. The task force prepared a draft proposal incorporating staff comments. The task force chair will submit the draft proposal and the rationale to the TSC.

Next Action Staff will participate in the next TSC meeting scheduled for October 2021, and staff will support venturi requirements. Staff will continue to monitor NFPA 58.

Magnet Sets

Staff Contact Harsanyi, Steve

Voluntary Standard(s) ASTM F3458-21 *Standard Specification for Marking, Packaging and Labeling Adult Magnet Sets Containing Small, Loose, Powerful Magnets (with a Flux Index $\geq 50 \text{ kG}^2 \text{ mm}^2$)*

Relevant Rulemaking Petition CP 17-1 Requesting Rulemaking for Magnet Sets (withdrawn on April 22, 2020). Note: Despite the withdrawal, in response to petition CP 17-1, staff submitted an informational briefing package on magnet sets to the Commission on June 3, 2020, and staff will submit an NPR briefing package to the Commission before the end of FY 2021.

Standard(s) Update In March 2021, ASTM published ASTM F3458-21, the new *Standard Specification for Marking, Packaging and Labeling Adult Magnet Sets Containing Small, Loose, Powerful Magnets (with a Flux Index $\geq 50 \text{ kG}^2 \text{ mm}^2$)*

Purpose To work with ASTM to revise the voluntary standard to adequately address the hazard associated with ingestion of magnets from magnet sets.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

In late FY 2020, ASTM issued an F15 ballot containing four items, all to resolve negative votes from a previous ballot on magnet sets. Staff voted on these four items. In October 2020, ASTM published the ballot results showing that all four negatives were found to be not persuasive.

The new standard, ASTM F3458-21, was approved in February 2021, and it published in March 2021.

Next Action Staff will participate in the next ASTM subcommittee meeting, scheduled for May 25, 2021. Staff is also preparing for Commission consideration, an NPR briefing package in FY 2021 to address the internal interaction hazards associated with hazardous magnets, including “adult” (*i.e.*, general use) magnet sets.

Mowers

Staff Contact Paul, Caroleene

Voluntary Standard(s) ANSI/OPEI B71.1-2017 *Standard for Consumer Turf Care Equipment – Pedestrian-Controlled Mower and Ride-On Mowers – Safety Specification*

ANSI/OPEI 60335-2-107-2020 *Particular Requirements for Robotic Battery Powered Electrical Lawnmowers*

Relevant Rulemaking 16 CFR part 1205, *Safety Standard for Walk-Behind Power Lawn Mowers* and Petition CP 19-1 on *Walk-Behind Power Lawn Mowers* (withdrawn May 2020)

Standard(s) Update In December 2020, OPEI published ANSI/OPEI 60335-2-107-2020, the latest revision to *Particular Requirements for Robotic Battery Powered Electrical Lawnmowers*. This revision includes editorial changes and a technical change to the foot probe diagram.

Purpose To work with OPEI to revise their voluntary standards to address hazards associated with walk-behind power lawn mowers.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

Next Action Staff will meet with OPEI to discuss label issues in the withdrawn petition, CP 19-01. In addition, in late FY 2021, staff intends to engage OPEI to develop their voluntary standard related to back-over hazards associated with riding mowers.

Nanotechnology

Staff Contact Matheson, Joanna

Voluntary Standard(s) ASTM E3025-16 *Standard Guide for Tiered Approach to Detection and Characterization of Manufactured Silver Nanomaterials in Textiles*

ASTM E2525-08 (2013) *Standard Test Method for Evaluation of the Effect of Nanoparticulate Materials on the Formation of Mouse Granulocyte-Macrophage Colonies*

ASTM E2526-08(2013)	<i>Standard Test Method for Evaluation of Cytotoxicity of Nanoparticulate Materials in Porcine Kidney Cells and Human Hepatocarcinoma Cells</i>
ASTM WK48313	Potential new guide for collection and generation of environment, health, and safety information for nanomaterials and nanoenabled products
ASTM WK52417	Potential new standard to determine total silver in textiles by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) or Inductively Coupled Plasma Mass Spectrometry (ICP MS) analysis
ASTM E3238-20	<i>Standard Test Method for Quantitative Measurement of the Chemoattractant Capacity of a Nanoparticulate Material in vitro</i>
ASTM WK60553	Potential new voluntary standard for evaluation of nanoparticulate material internalization by phagocytic cells in vitro
ASTM WK60554	Potential new voluntary standard for detection of nitric oxide production
ISO/TS 13830:2013	<i>Nanotechnologies — Guidance on voluntary labelling for consumer products containing manufactured nano-objects</i>
ISO/DTS 21356-1:2021	<i>Structural characterization of graphene Part 1: Graphene from powders and dispersions</i>
ISO TR 22293	Potential new evaluation method for assessing the release of nanomaterials from commercial, nanomaterial containing polymer composites
ISO/TS 21975:2020	<i>Polymeric nanocomposite films for food packaging with barrier properties - Specification of characteristics and measurement methods</i>

***Relevant
Rulemaking***

N/A

***Standard(s)
Update***

In October 2020, ISO published ISO TS 21975:2020, new international standard for *Polymeric nanocomposite films for food packaging with barrier*

properties - Specification of characteristics and measurement methods. In February 2021, ISO published ISO TS 21356:2021, the new international standard for Structural characterization of graphene Part 1: Graphene from powders and dispersions.

Purpose

To work with ASTM and ISO technical committees to develop and revise voluntary standards to strengthen safety provisions addressing hazards associated with nanotechnology.

Activities

ISO Technical Committee 229 (ISO TC/229) focuses on standardization in the field of nanotechnologies, understanding and control of matter and processes at the nano scale, where the onset of size-dependent phenomena usually enables novel applications, as well as use of nanoscale materials to create improved materials, devices, and systems that exploit these new properties. Specific working groups address the development of standards and guides for terminology and nomenclature; metrology and instrumentation; test methodologies; modelling and simulations; and science-based health, safety, and environmental practices.

On October 14-15, 2020, staff participated in working group meetings of the U.S. TAG to ISO TC/229. The meetings were held to continue developing various ISO TC/229 projects.

On October 27-28, 2020, the ISO TC/229 working group 3 (Health, Safety and Environmental Aspects of Nanotechnologies) met for ballot resolution to resolve comments received regarding various nanotechnology ISO work items. Staff participated in the discussion, and the comments were resolved during the meetings.

The ISO TC/229 working group 3 (Health, Safety and Environmental Aspects of Nanotechnologies) and 5 (Products and Applications) met on November 2-13, 2020, to discuss high-priority projects and new project proposals. Staff participated in both working group discussions of projects and proposals.

On November 30, 2020, and on December 1, 2020, staff participated in the ASTM E56 subcommittee meetings for Physical and Chemical characterization (E56.02), Environmental, Health and Safety (E56.03), Nano-Enabled Consumer Products (E56.06), Workforce Education and Development (E56.07), and Nano-Enabled Medical Products (E56.08). The meeting participants discussed projects focusing on the characterization and quantification of nanomaterials and best analytical methods.

Staff also participated in the December 10, 2020, U.S. TAG to ISO TC/229 meeting, where actions taken during the ISO/TC 229 Plenary and Subgroup Virtual Meetings, held in November, were discussed. In addition, staff

summarized the recommendations provided by TC/229 working group 3 attendees on the CPSC proposed method for characterizing and quantifying nanomaterials released from wood products. Additional U.S. TAG members volunteered to participate in the proposed project.

On February 2, 2021, staff participated in another ISO U.S. TAG meeting for TC/229. Before the new project proposal presentations, it was noted that six working group items were recently published or submitted for publication. These items included the CPSC co-sponsored technical report 22293, "Evaluation of methods for assessing the release of nanomaterials from commercial, nanomaterial containing polymer composites." Additional standards published of interest were "*Structural characterization of graphene Part 1: Graphene from powders and dispersions*," "*Assessment of protein secondary structure during an interaction with nanomaterials using ultraviolet circular dichroism*" and "*Polymeric nanocomposite films for food packaging with barrier properties-Specification of characteristics and measurement methods*."

Next Action Staff will continue to be active in the ASTM E56 subcommittees and will participate in the next ASTM E56 subcommittee meetings, scheduled for May 10-11, 2021, and for ISO TC 229 meetings, scheduled for May 10-21, 2021. Staff will continue to develop a strawman on the CPSC proposed method for characterizing and quantifying nanomaterials released from wood products. At the ISO TC 229 May 2021 meetings, international experts will discuss whether the project should start as a technical report or technical standard.

National Electrical Code

Staff Contact Miller, Einstein

Voluntary Standard(s) NFPA 70, 2020 Edition *National Electrical Code*

Relevant Rulemaking N/A

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with the NFPA to revise the code, to strengthen its safety provisions addressing hazards associated with electrical fires, carbon monoxide poisoning, and shock incidents associated with consumer products, including

appliances, pools and spas, generators, electrical equipment, and wiring products.

Activities

Staff participated in two of the 18 NFPA 70 Code-Making Panels (CMPs). Staff participated in six CMP 2 task group meetings on November 4, 2020, November 10, 2020, November 17, 2020, November 24, 2020, December 15, 2020, and December 16, 2020. The task group focused on public input regarding ground-fault circuit interrupters (GFCIs) to mitigate electrocution and shock hazards. The widespread use of GFCIs has been effective in mitigating shock and electrocution hazards, and staff supports their continued use. Staff also provided updated incident data on burn injuries involving countertop appliances.

Staff participated in the full CMP 2 committee meeting held January 11-16, 2021, to prepare the first draft of the articles it is responsible for in the next edition of NFPA 70. The initial ballots during the meeting favored expansion of GFCI and arc-fault circuit interrupters (AFCIs) to most other remaining branch circuits for new residential construction. Staff supported the use of AFCI and GFCI technologies as effective means to mitigate electrical shock and fire incidents in dwellings.

Staff participated in 11 CMP 17 task group meetings on November 5, 2020, November 10, 2020, November 12, 2020, November 17, 2020, November 19, 2020, November 24, 2020, December 1, 2020, December 3, 2020, December 8, 2020, December 10, 2020, and December 17, 2020. The task group focused on grounding, bonding, and GFCIs, to mitigate electrocution and shock hazards in swimming pools and similar installations. Staff actively supported proposals to add requirements for a GFCI receptacle for equipment rooms, vaults, or pits for spas, hot tubs, fountains, and similar installations.

Staff participated in the full CMP 17 committee meeting held from January 4-8, 2021, to prepare the first draft of the articles it is responsible for in the next edition of NFPA 70. Staff actively participated in discussions on numerous proposals, including removing some of the text in the requirements for immersion protection for handheld hair dryers, which the CMP accepted. Staff also supported proposals to add requirements for a GFCI-protected receptacle for equipment rooms, vaults, or pits for all swimming, wading, therapeutic, and decorative pools, fountains, hot tubs, spas, hydromassage bathtubs, and similar installations, which the CMP accepted.

Next Action

The full first draft of the next edition of NFPA 70 will be available on July 2, 2021. Staff will continue to participate in developing the next edition of NFPA 70, including participating in the second draft meeting, which will be scheduled after public comments on the first draft close on August 19, 2021.

Non-Full-Sized Cribs and Play Yards

Staff Contact Nesteruk, Hope

Voluntary Standard(s) ASTM F406-19 *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*

ASTM F2933-19 *Standard Consumer Safety Specification for Crib Mattresses*

Relevant Rulemaking 16 CFR part 1220, Safety Standard for Non-Full-Size Baby Cribs and 16 CFR part 1221, Safety Standard for Play Yards

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM to revise the voluntary standards to strengthen safety provisions and to ensure that the voluntary standards and the corresponding federal mandatory standards maintain adequate safety levels addressing hazards associated with non-full-size cribs and play yards.

Activities In September 2020, ASTM issued a ballot with four items pertaining to the non-full-size crib and play yard voluntary standard. The ballot items were for revisions to the instructions, the accessories requirement, a figure in the stability requirement, and ad hoc language. All of the balloted items received negatives and/or comments. Two other ballots were issued by ASTM F15 during the reporting period, containing a total of three items for this standard. In December 2020, there were two ballot items issued: revision to the definition for an “accessory,” and a change to the stability test fixture diagram. In March 2021, the ad hoc warnings language was re-balloted, after considering the negative votes and comments from the September 2020 ballot.

On November 9, 2020, staff participated in the ASTM subcommittee meeting during which the ballot results were reviewed. In addition, task groups provided reports. The stability task group discussed inconsistencies between test laboratories test devices that might lead to discrepancies in testing results. The task group proposed changes to the test fixture diagram in the standard. The subcommittee voted to send this out to ballot. The mattress fit and thickness task group, led by staff, provided an update report and advised members that the NPR for crib mattresses was still open for comments.

Staff participated in several task group meetings during the reporting period:

December 17, 2020 – Mattress Fit and Thickness Task Group. The task group met to discuss proposals for measuring the gap between the mattress and the play yard side wall.

January 6, 2021 – Play Yard Ad Hoc Task Group. The task group met to resolve the negatives from the September 2020 ballot.

January 21, 2021 – Mattress Fit and Thickness Task Group. Staff stepped down as task group chair, and the new chair reviewed the proposed test method that had been developed.

February 15, 2021 – Mattress Floor Definition Task Group. The task group discussed the product that has a mattress pad sewn into the floor, leaving no possible gaps on the side. The task group agreed that the definition of a “mattress” (or “mattress pad”) should specify that it is removable from the unit. The task group chair will draft language for balloting.

Next Action Staff will participate in the next ASTM subcommittee meeting, scheduled for May 2021.

Playground Equipment (Home)

Staff Contact Lee, Kevin

Voluntary Standard(s) ASTM F1148-20 *Standard Consumer Safety Performance Specification for Home Playground Equipment*

Relevant Rulemaking N/A

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with ASTM to revise the voluntary standard to strengthen its safety provisions addressing hazards associated with home playground equipment.

Activities Staff participated in the subcommittee meeting held on November 16, 2020. During this meeting, incident data, supplied by staff pertaining to entrapments and lateral slide ejections, were discussed. The subcommittee formed a task group to review the data in more detail. The task group met on December 9, 2020, and staff participated in the meeting. The task group agreed to categorize the home slide incident data for further review at the next meeting. On January 6, 2021, the task group met again; and after a review of the data, the task group concluded that the standard adequately addresses slide fall hazards. The task group suggested future work to strengthen the warning language to help address the strangulation deaths on home slides.

In December 2020, ASTM issued an F15 main committee ballot containing one item for F1148 regarding slide surfacing. Three negative votes were cast on the ballot item that were subsequently found to be not persuasive. As of the close of the reporting period, the revision to the standard had not been published.

Next Action Staff will participate in the next ASTM subcommittee meeting, scheduled for November 2021.

Playground Equipment (Public)

Staff Contact Lee, Kevin

Voluntary Standard(s) ASTM F1487-17 *Standard Consumer Safety Performance Specification for Public Playground Equipment*

Relevant Rulemaking N/A

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with ASTM to revise the voluntary standard to strengthen its safety provisions addressing hazards associated with public playground equipment.

Activities During the reporting period, ASTM issued four F15 main committee ballots containing 16 different revision items for the standard and 13 items to resolve previous negative votes. In November and December 2020, staff cast negative votes and commented on two of the ballot items pertaining to bannister rails/gliders. Staff voted negative for various reasons, including concerns that the requirements outlined in the standard and ballot items would allow for glider designs similar to ones recalled in the past, to comply with the standard. Both negative votes were subsequently found to be non-persuasive. Other ballot items pertained to trolley rides, seesaws, horizontal rotating equipment, and other issues.

On February 16, 2021, ASTM issued an F15.29 subcommittee ballot containing an administrative ballot item dealing with harmonizing the CPSC Public Playground Handbook and the ASTM standard. The ballot asked the subcommittee to approve sending a letter to CPSC with recommendations to update the CPSC Public Playground Handbook. That ballot item passed. As of the end of the closing period, many of the ballot items were still being resolved. A revision to the standard, reflecting the approved ballot items, is expected to be published in May.

Staff participated in the subcommittee meetings held on November 17, 2020, January 28, 2021, and March 1, 2021. During the November 2020 meeting, staff provided the subcommittee with incident data pertaining to gliders. Ballot results were discussed during the subcommittee meetings on January 28 and March 1, 2021.

Staff also participated in various task group meetings during the reporting period, including an ASTM F14.10 fencing meeting on December 17, 2020, fully enclosed play structures on February 10 and 25, 2021, and the handbook harmonization task group meeting on November 10, 2020. The purpose of the November meeting was to continue to review the handbook for changes that could improve harmonization of the Handbook with ASTM F1487.

Next Action Staff will participate in next subcommittee meeting, which has been scheduled for November 2021.

Playground Surfacing

Staff Contact Lee, Kevin

Voluntary Standard(s)	ASTM F1292-18e ¹	<i>Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment</i>
	ASTM F1951-14	<i>Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment</i>
	ASTM F3012-14	<i>Standard Specification for Loose-Fill Rubber for Use as a Playground Safety Surface Under and Around Playground Equipment</i>
	ASTM F2223-19a	<i>Standard Guide for ASTM Standards on Playground Surfacing</i>
	ASTM F3313-20	<i>Standard Test Method for Determining Impact Attenuation of Playground Surfaces Within the Use Zone of Playground Equipment as Tested in the Field</i>
	ASTM F3351-19	<i>Standard Test Method for Playground Surface Impact Testing in Laboratory at Specified Test Heights</i>

Relevant Rulemaking	N/A
Standard(s) Update	In November 2020, ASTM published ASTM F3313-20, the latest revision of the <i>Standard Test Method for Determining Attenuation of Playground Surfaces</i> . The revision includes minor changes to the reporting requirement section of the standard.
Purpose	To work with ASTM to revise the voluntary standards to address the hazard patterns associated with playground surfacing.
Activities	<p>Staff participated at the ASTM F08.63 subcommittee meeting on playground surfacing held on November 19, 2019, during which staff discussed sharp surface and fall incident data supplied by staff to ASTM earlier that month.</p> <p>During the reporting period, ASTM issued F08 main committee ballots containing four items for the playground surfacing standards. In October 2020, ASTM balloted F3012-14 for reapproval (without changes) and balloted a revision to the instrumentational check section of F3313-20. Both of these ballot items received negative votes; thus, they were not approved. In December, ASTM F08 issued two other ballot items: another revision to the instrumentation check section of F3313-20, and an update with revisions to F1951-14. Both of these ballot items also received negative votes; and thus, they were not approved.</p>
Next Action	Staff will participate in the next ASTM subcommittee meeting, scheduled for May 20, 2021.

Pools, Portable Unprotected (Child Drowning)

Staff Contact	Bathalon, Susan	
Voluntary Standard(s)	ASTM F2666-16	<i>Standard Specification for Aboveground Portable Pools for Residential Use</i>
	ANSI/APSP/ICC-4a-2013	<i>American National Standard for Above-Ground/On-Ground Residential Pools</i>
	ANSI/APSP/ICC-8 2005 (R2013)	<i>American National Standard Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs</i>
Relevant Rulemaking	N/A	

<i>Standard(s) Update</i>	The voluntary standards listed above were not updated during the reporting period.
<i>Purpose</i>	To work with ASTM and PHTA (formerly APSP) to revise the voluntary standard to strengthen its safety provisions addressing hazards associated with residential drowning in portable pool products.
<i>Activities</i>	<p>Between October 13, 2020, and March 22, 2021, staff participated in seven separate ASTM task group meetings to review and discuss proposed requirements for computer-based pool drowning detection systems. The task group commenced in FY 2020, and it is in the process of drafting proposed requirements for new safety technology, such as an electronic computer vision that can add notification features to alert caregivers that a drowning event is occurring.</p> <p>At the last task group meeting on March 22, 2021, staff participated in group discussions on the functionality benefits and limitations of several computer vision technologies, including underwater computer vision camera technology and pressure sensors. Much of the pressure sensor information originated from pool alarm technologies, which, without adaptations, may not be suited for the computer vision draft standard. Staff and the task group chair will research the market for pressure sensor advancements in computer vision.</p>
<i>Next Action</i>	Staff will participate in the next ASTM task group meeting on pool drowning detection systems, which has not been scheduled.

Portable Bed Rails (Children's)

<i>Staff Contact</i>	Nesteruk, Hope	
<i>Voluntary Standard(s)</i>	ASTM F2085-19	<i>Standard Consumer Safety Specification for Portable Bed Rails</i>
<i>Relevant Rulemaking</i>	16 CFR part 1224, <i>Safety Standard for Portable Bed Rails</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with portable bed rails for children.	

<i>Activities</i>	Staff had no voluntary standards activity associated with the product category during the reporting period.
<i>Next Action</i>	Staff will conduct the annual review of incident data and will participate in the next subcommittee or task group meeting, when scheduled.

Portable Generators

<i>Staff Contact</i>	Buyer, Janet
<i>Voluntary Standard(s)</i>	ANSI/PGMA G300-2018 (Errata Update) <i>Safety and Performance of Portable Generators</i> UL 2201, 2 nd Edition <i>Carbon Monoxide (CO) Emission Rate of Portable Generators</i>
<i>Relevant Rulemaking</i>	NPR published on November 21, 2016 (81 FR 83556)
<i>Standard(s) Update</i>	The voluntary standards and the NPR listed above were not updated during the reporting period.
<i>Purpose</i>	To work with UL and PGMA to revise the voluntary standards to strengthen safety provisions addressing hazards associated with portable generator carbon monoxide (CO) deaths and injuries.
<i>Activities</i>	Staff continues to work with NIST staff to execute the simulation plan, as proposed in NIST Technical Note 2048, and revised in staff's memorandum dated August 12, 2020. This will allow staff to evaluate the effectiveness of the CO hazard mitigation requirements for portable generators in two voluntary standards, PGMA G300 and UL 2201.
<i>Next Action</i>	Staff will continue to participate in PGMA G300 and UL 2201 voluntary standards meetings related to portable generators. Staff will notify the SDOs when the effectiveness analysis is completed and the report is published.

Portable Hook-On Chairs

<i>Staff Contact</i>	Nesteruk, Hope
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<i>Voluntary Standard(s)</i>	ASTM F1235-18 <i>Standard Consumer Safety Specification for Portable Hook-On Chairs</i>
<i>Relevant Rulemaking</i>	16 CFR part 1233, <i>Safety Standard for Hook-On Chairs</i>
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.
<i>Purpose</i>	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with hook-on chairs.
<i>Activities</i>	To monitor the adequacy of the mandatory standard and its referenced voluntary standard, staff conducted the annual review of incident data associated with hook-on chairs in November 2020, and shared the results with ASTM. Staff did not identify any new incidents or hazard patterns for this product since the last review.
<i>Next Action</i>	Staff will participate in the next subcommittee meeting, when scheduled.

Pressure Cookers

<i>Staff Contact</i>	Snyder, Duncan Scott
<i>Voluntary Standard(s)</i>	UL 136, 8 th Edition <i>Pressure Cookers</i>
<i>Relevant Rulemaking</i>	N/A
<i>Standard(s) Update</i>	The voluntary standard listed above was not updated during the reporting period.
<i>Purpose</i>	To work with UL to revise the voluntary standard to strengthen its safety provisions addressing hazards associated with pressure cookers.
<i>Activities</i>	Staff had no voluntary standards activity associated with the product category during the reporting period.
<i>Next Action</i>	Staff will provide UL with incident data relating to pressure cooker locking mechanisms and hazards related to premature lid disengagement. Staff will work with UL STP 136 to determine whether the current voluntary standard adequately addresses all potential hazards.

Recreational Off-Highway Vehicles (ROVs)

Staff Contact Paul, Caroleene

Voluntary Standard(s) ANSI/ROHVA 1-2016 *Recreational Off-Highway Vehicles*
ANSI/OPEI B71.9-2016 *American National Standard for Multipurpose Off-Highway Utility Vehicles*

Relevant Rulemaking NPR *Recreational Off-Road Vehicles* (79 FR 68964)

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ROHVA and OPEI to develop requirements to address fire hazards and debris penetration hazards in off-highway vehicles.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

On March 26, 2021, ROHVA informed CPSC that ANSI/ROHVA 1-2016 is open for revision.

Next Action In accordance with the FY 2021 Operating Plan, staff will submit an ANPR briefing package on fire and debris penetration to the Commission on April 28, 2021. Staff will notify the SDOs and encourage comments, and staff will review comments submitted in response to the ANPR. Comments to the ANPR will also be reviewed for potential recommendations to revise the voluntary standards.

Safety Locks and Other Household Child-Inaccessibility Devices

Staff Contact Lee, Kevin

Voluntary Standard(s) ASTM F3492-21 *Standard Consumer Safety Specification for Child Safety Locks and Latches for Use with Cabinet Doors and Drawers*

Relevant Rulemaking	N/A
Standard(s) Update	In February 2021, ASTM published F3492-21, the new <i>Standard Consumer Safety Specification for Child Safety Locks and Latches for Use with Cabinet Doors and Drawers</i>
Purpose	To work with ASTM to address hazards associated with safety locks and child-inaccessibility devices.
Activities	<p>In November 2020, CSPC staff provided the ASTM subcommittee with an incident data summary spreadsheet pertaining to safety locks and latches.</p> <p>In December 2020, ASTM issued a ballot containing the draft standard. Staff participated in a subcommittee meeting on February 2, 2021, during which the ballot results from the December 2020 ballot item were reviewed. The standard was approved, and it includes requirements for small parts, sharp edges, paint and surface coatings, openings from holes and slots, loose magnets, effective strength, and warning labeling. During the subcommittee meeting, staff recommended adding a test procedure to measure the gap from an opening in a drawer/cabinet while the latch/lock is installed. The group formed a new task group to develop this requirement, and staff will participate in the task group.</p>
Next Action	Staff will participate in the next subcommittee and task group meetings, when scheduled.

Self-Balancing Scooters and Light Electric Vehicles

Staff Contact	Mella, Lawrence	
Voluntary Standard(s)	ASTM F2641-15	<i>Recreational Powered Scooters and Pocket Bikes</i>
	ASTM F2642-08 (2015)	<i>Standard Consumer Safety Specification for Safety Instructions and Labeling for Recreational Powered Scooters and Pocket Bikes</i>
	ASTM WK57360	Potential new voluntary standard for self-balancing scooters and hoverboards
	ASTM WK70724	Potential new voluntary standard for commercial electric-powered scooters for adults

***Relevant
Rulemaking***

N/A

***Standard(s)
Update***

The voluntary standards listed above were not updated during the reporting period.

Purpose

To work with ASTM to develop a new voluntary standard or revise the existing standard to strengthen the safety provisions addressing hazards associated with self-balancing scooters and electric-powered scooters for adults.

Activities

During the reporting period, staff participated in three main task group meetings for the potential new standard on commercial eScooters. These meetings took place on October 21 and November 19, 2020, and on January 11, 2021. The task group and subcommittee members discussed the two potential standards being developed in the F15.58 subcommittee and also created sub-task groups to work on specific requirements for the commercial eScooter standard. Staff joined each of the sub-task groups.

Following the creation of the sub-task groups, staff participated in several of the task group meetings on the following dates:

- Electrical: November 4, 2020, November 18, 2020 and December 2, 2020
- Latching: November 4, 2020, November 12, 2020 and December 3, 2020
- Hazardous Substances: November 23, 2020 and December 7, 2020
- Brakes: December 2, 2020, January 29, 2021, February 12, 2021, March 5, 2021 and March 18, 2021
- Turn Signals: March 1, 2021
- Curb Impacts: February 8, 2021

Next Action

Staff will participate in the next ASTM task group meetings, with dates scheduled during April, for brakes, electrical, curb impact and turn signals, and other subcommittee or task group meetings, when scheduled.

Sling Carriers (Infant and Toddlers)

Staff Contact

Nesteruk, Hope

***Voluntary
Standard(s)***

ASTM F2907-19

Consumer Safety Specification for Sling Carriers

Relevant Rulemaking	16 CFR part 1228, <i>Safety Standard for Sling Carriers</i>
Standard(s) Update	The voluntary and mandatory standards listed above were not updated during the reporting period.
Purpose	To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with sling carriers.
Activities	<p>Staff participated in the subcommittee meeting on November 9, 2020, during which staff discussed the annual incident data review and the previously provided incident data spreadsheet. In addition, a test lab representative reported seeing lots of slippage in ring slings during testing. A task group was formed to look into the ring slippage issue and to work on clarifying the test method. Staff is participating in the task group.</p> <p>On January 11, 2021, staff participated in the ring-slippage task group meeting. The group discussed how some failures seem to be inconsistent (e.g., 2 of 3 identical samples pass, one fails). Staff raised the issue of the stringency of the standard and suggested making sure the group focuses on things that will not reduce the safety and ensure that test results are consistent. Group members raised issues with the frequency (2Hz) and the travel distance (4.75 inches) test parameters of the occupant retention test. Staff presented information from a staff-written letter to the previous chair of this subcommittee in 2013, which addressed these points the last time they were raised. At that time, staff referred to scientific literature that supported 2Hz as being consistent with human walking speeds. Staff read this portion of the letter to the task group. Staff forwarded this letter to the current subcommittee chair.</p> <p>On March 3, 2021, staff participated in the Ad Hoc language task group meeting. During the meeting, the chair circulated a draft of the ballot, and the task group reviewed and discussed the draft. Due to the lengthy discussion, the task group did not get through all of the topics up for discussion. Another meeting will be scheduled before the item goes out for ballot.</p>
Next Action	Staff will participate in the next ASTM subcommittee meeting, scheduled for May 2021.

Smoke Alarms

Staff Contact Lee, Arthur

<i>Voluntary Standard(s)</i>	UL 217, 9 th Edition	<i>Standard for Single and Multiple Station Smoke Alarms</i>
	NFPA 72, 2019 Edition	<i>National Fire Alarm and Signaling Code</i>
<i>Relevant Rulemaking</i>	N/A	
<i>Standard(s) Update</i>	The voluntary standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with UL, NFPA, and other stakeholders on potential revisions to voluntary standards and codes to strengthen safety provisions addressing hazards mitigated by smoke alarms.	
<i>Activities</i>	Staff listened in on the final portion of a UL 217 STP meeting on March 2, 2021. During this portion of the meeting, a task group chair reported that the task group's experience, and probably the STP as a whole, do not have the expertise to calculate the reliability of the components in a smoke alarm. The chair suggested consulting with reliability experts to help calculate smoke alarm reliability.	
	Staff continues to work with the contractor on the Smoke and CO Alarm Survey. Biweekly meetings are held with the contractor, staff, and the main sponsors of the survey (NFPA and NIST), to discuss various strategies to restart the survey in 2021, and track the progress of the survey.	
	In March 2021, staff asked UL about the change in the effective date--from June 2021 to June 2022--for the polyurethane foam smoldering and flaming tests and nuisance-resistance test. UL informed staff that, due to the pandemic, manufacturers have had issues getting the needed components to produce their smoke alarms. Currently, there are only a few model smoke alarms listed to the additional tests, but none are available for sale.	
<i>Next Action</i>	Staff will continue to work with the contractor to complete the Smoke and CO Alarms survey and to provide the survey to interested stakeholders, when available. Staff will work with NPFA, UL, and other stakeholders in possibly developing proposals regarding the audible frequency of smoke alarms. Staff will participate in the next UL 217 STP meeting scheduled for fall 2021.	

Soft Infant and Toddler Carriers

Staff Contact Nesteruk, Hope

Voluntary Standard(s) ASTM F2236-16a *Standard Consumer Safety Specification for Soft Infant and Toddler Carriers*

Relevant Rulemaking 16 CFR part 1226, *Safety Standard for Soft Infant and Toddler Carriers*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with soft infant and toddler carriers.

Activities On November 2, 2020, staff participated in a task group meeting regarding fasteners on soft infant and toddler carriers. The task group discussed potential changes to the static and dynamic tests in ASTM F2236.

On November 6, 2020, staff participated in a task group meeting to address hazards with leg openings in the carriers. The group discussed the use of the largest truncated cone to perform certain leg opening tests for older children. The task group also discussed messages in the warning label, including: “*Baby must face towards you until he or she can hold head upright.*”

Currently, this message is required on the product, but it is not allowed on the warning label. Staff expressed a general concern that the discussion may lead to removing warning messages, which could be viewed as a reduction in safety during the rule update process. The final topic of discussion was the possibility of refining the warning message for carriers intended for children older than 4 months. After discussions, staff suggested that because the focus of this group is on leg openings, the warning label discussions should be moved to a task group for warnings, because there may be others who wish to be involved. The chair agreed.

Staff also participated in the subcommittee meeting on November 9, 2020, regarding the standard for soft infant and toddler carriers, ASTM F2236. There are a number of ballot items that have passed, but they are being held administratively. The chair is planning to publish a revised standard by mid-2021, and will notify CPSC afterward. During the meeting, the following task groups provided reports: leg openings, warnings, and dynamic testing. During the warnings task group report, a new labeling task group was

formed, to consider changes to one of the warnings on the product. Staff is participating on the task group.

Next Action Staff will participate in the next ASTM subcommittee meeting, when scheduled.

Sports/Recreational Headgear Sensors/Helmet and Sensors

Staff Contact Dayal, Vineed

Voluntary Standard(s) ASTM F1446-20 *Standard Test Methods for Equipment and Procedures Used in Evaluating the Performance Characteristics of Protective Headgear*

ASTM F1447-18 *Standard Specification for Helmets Used in Recreational Bicycling or Roller Skating*

ASTM F2220-15 *Standard Specification for Headforms*

Relevant Rulemaking N/A

Standard(s) Update In November 2020, ASTM published ASTM F1446-20, the latest revision to the *Standard Test Methods for Equipment and Procedures Used in Evaluating the Performance Characteristics of Protective Headgear*. This revision contains several editorial changes and a minor update to the definition of an “Impact Test Apparatus.”

Purpose To work with ASTM to develop and revise helmet and headgear voluntary standards, and to work with ASTM to develop a new voluntary standard for headgear sensors.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

In February 2021, staff received authorization to serve as the task group chair for the ASTM F08.53 sensors task group.

Next Action Staff will continue to work with the ASTM members to develop the draft voluntary standard for headgear sensors. In addition, staff will chair the sensors task group. Staff intends to participate in the next subcommittee meeting, currently scheduled for November 2021.

Spray Polyurethane Foam (SPF) Insulation

Staff Contact Bevington, Charles

Voluntary Standard(s) ASTM D8142-17e¹ *Standard Test Method for Determining Chemical Emissions from Spray Polyurethane Foam (SPF) Insulation using Micro-Scale Environmental Test Chambers*

ASTM WK58354 Potential new voluntary standard for measuring chemical emissions from SPF insulation in a large-scale ventilated enclosure

ASTM WK58356 Potential new voluntary standard for modeling indoor concentrations of chemical substances from indoor materials

Relevant Rulemaking N/A

Standard(s) Update The voluntary standards listed above were not updated during the reporting period.

Purpose To work with ASTM to develop new voluntary standards to address hazards associated with chemical emissions from spray polyurethane foam insulation.

Activities Staff participated in an ASTM D22 .05 Indoor Air Quality task group meeting on March 25, 2021. During the meeting, WK 58354 and WK 58356 work items were discussed. Staff encouraged the subcommittee to lengthen the sampling timeframe to 3 days and to add end-of-experiment sampling from chamber ceiling and floors in WK 58354. The subcommittee expects WK 58354 to go to ballot later this calendar year, with WK 58356 expected to ballot during the next calendar year.

Next Action Staff will continue to provide technical support to the subcommittee and the task group in preparing both ASTM WK58354 and ASTM WK58356 for ballot. Staff will participate in the next ASTM D22.05 subcommittee meeting, scheduled for April 20, 2021.

Stationary Activity Centers

Staff Contact Lee, Kevin

Voluntary Standard(s) ASTM F2012-18e¹ *Standard Consumer Safety Specification for Stationary Activity Centers*

Relevant Rulemaking 16 CFR part 1238, *Standard Consumer Safety Specification for Stationary Activity Centers*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with stationary activity centers.

Activities On October 14, 2020, staff sent a letter to the subcommittee chair, asking him to set up a meeting to address the strap integrity issues that remain unresolved. On February 8, 2021, ASTM held a strap integrity task group meeting in response to the October letter. The task group last met on August 31, 2020, under the previous subcommittee chair, and the group drafted a set of performance and test requirements to address the failure of suspension straps. The draft proposal requires either a separate redundant suspension strap, or life cycle testing. The task group reviewed the proposed performance and test requirements that were previously drafted.

On March 12, 2021 ASTM issued an F15 ballot with an item containing performance and test requirements to address suspension strap failures in stationary activity centers. Ballot results were not known at the end of the reporting period.

Next Action Staff will participate at the next subcommittee meeting, scheduled for May 2021.

Swimming Pools/Spas, Drain Entrapment

Staff Contact Eilbert, Mark

Voluntary Standard(s) ANSI/APSP/ICC 16-2017 *American National Standard for Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs*

Relevant Rulemaking	16 CFR part 1450, <i>Virginia Graeme Baker Pool and Spa Safety Act</i>
Standard(s) Update	The Commission postponed the effective date for the updated mandatory drain cover standard in section 1404(b) of the <i>Virginia Graeme Baker Pool and Spa Act</i> (VGBA) from November 24, 2020, to May 24, 2021.
Purpose	To work with PHTA (formerly APSP) to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing entrapment hazards in swimming pools, wading pools, spas, and hot tubs available to the general public, as well as products like pool drain covers.
Activities	<p>Staff had no voluntary standards activity associated with the product category during the reporting period.</p> <p>PHTA notified staff on February 21, 2021, of their intent to develop a provisional amendment to ANSI/APSP/ICC 16-2017. The amendment will add requirements for storable pools.</p>
Next Action	Staff continues to work with the committee to monitor the effectiveness of the voluntary standard and make any revisions necessary.

Swimming Pools/Spas Safety, Vacuum Relief System

Staff Contact	Eilbert, Mark	
Voluntary Standard(s)	PHTA-17	Potential new voluntary standard for safety vacuum release systems, automatic pump shut-off systems, shut-off systems, and vacuum limiting systems for swimming pools, spas, wading pools, hot tubs, and catch pools
	ANSI/APSP/ICC-7-2013	<i>Suction Entrapment Avoidance</i>
	ASTM F2387-2004(12)	<i>Manufactured Safety Vacuum Release Systems (SVRS) for Swimming Pools, Spas and Hot Tubs</i>
Relevant Rulemaking	N/A	
Standard(s) Update	The voluntary and mandatory standards listed above were not updated during the reporting period.	

Purpose	To work with PHTA (formally APSP) and ASTM to develop the voluntary standards to strengthen safety provisions and to ensure that the voluntary standard maintains adequate safety levels addressing hazards associated with safety vacuum release systems for swimming pools, spas, wading pools, and hot tubs.
Activities	<p>In late FY 2020, ASTM issued a ballot with an item associated with ASTM F2387. In October 2020, staff reviewed the ballot item and submitted an editorial comment regarding a change to a test criteria requirement. The ballot received a negative vote, which remained unresolved at the end of the reporting period.</p> <p>In December 2020, ASTM balloted another revision to their standard F2387-2004(12) that updates the scope of the standard. The ballot item received a negative vote that was found to be not persuasive in March 2021. The standard is expected to be updated in late spring 2021.</p>
Next Action	Staff will continue to attend PHTA and ASTM meetings, when scheduled, and will participate in the future development of the voluntary standards.

Table Saws

Staff Contact	Paul, Caroleene
Voluntary Standard(s)	UL 62841-3-1, 1 st Edition <i>Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-1: Particular Requirements for Transportable Table Saws</i>
Relevant Rulemaking	NPR <i>Safety Standard Addressing Blade-Contact Injuries on Table Saws</i> (82 FR 22190)
Standard(s) Update	The voluntary standard and NPR listed above were not updated during the reporting period.
Purpose	To work with UL on revising the voluntary standard to strengthen its safety provisions addressing hazards associated with blade-contact injuries from table saws.
Activities	Staff had no voluntary standards activity associated with the product category during the reporting period.
Next Action	Staff will update UL on incident data and CPSC rulemaking actions.

Tents

<i>Staff Contact</i>	Tenney, Allyson	
<i>Voluntary Standard(s)</i>	ASTM F3431-21	<i>Standard Specification for Determining Flammability of Materials for Recreational Camping Tents and Warning Labels for Associated Hazards</i>
<i>Relevant Rulemaking</i>	N/A	
<i>Standard(s) Update</i>	In February 2021, ASTM published ASTM F3431-21, the latest revision to the <i>Standard Specification for Determining Flammability of Materials for Recreational Camping Tents and Warning Labels for Associated Hazards</i> . This revision includes scope exemptions for products that meet the requirements of NFPA and ICC codes.	
<i>Purpose</i>	To work with ASTM on developing a voluntary standard to address the hazards associated with tent flammability.	
<i>Activities</i>	Staff had no voluntary standards activity associated with the product category during the reporting period.	
<i>Next Action</i>	Staff will participate in the subcommittee meeting, tentatively scheduled for August 2021.	

Toddler Beds

<i>Staff Contact</i>	Kish, Celestine	
<i>Voluntary Standard(s)</i>	ASTM F1821-19e ¹	<i>Standard Consumer Safety Specification for Toddler Beds</i>
<i>Relevant Rulemaking</i>	16 CFR part 1217, <i>Safety Standard for Toddler Beds</i>	
<i>Standard(s) Update</i>	The voluntary and mandatory standards listed above were not updated during the reporting period.	
<i>Purpose</i>	To work with ASTM to ensure that the voluntary standard and the	

corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with toddler beds.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

Next Action Staff will conduct the annual review of incident data on toddler beds and will participate in the next subcommittee or task group meeting, when scheduled.

Torch Fuel and Lamp Oil

Staff Contact White, Sharon

Voluntary Standard(s) ASTM WK60454 Potential new voluntary standard for torch fuel and lamp oil packaging

Relevant Rulemaking N/A

Standard(s) Update The potential new voluntary standard listed above was not completed during the reporting period.

Purpose To work with ASTM to develop voluntary standards addressing the hazards associated with the color and design of torch fuel and lamp oil packaging, the color and odor of torch fuel and lamp oil, and the use and design of devices principally intended to house torch fuel and lamp oil.

Activities ASTM appointed a new F15.72 subcommittee chair in December 2020. Staff participated in two ASTM F15.72 subcommittee meetings on December 17, 2020, and on February 17, 2021. During the December meeting, the subcommittee discussed three negative votes on a recent torch and lamp fuel ballot item for WK60454 (ASTM F15-06, item 21). Staff participated in the discussion of the negatives and agreed that changes were needed to the draft WK60454 standard. The subcommittee found the negatives persuasive, and the subcommittee chair will schedule a task group meeting for April 15, 2021, to discuss changes to the draft standard. During the February meeting, the subcommittee discussed the scope of the subcommittee, the current standards, and the draft standard. The subcommittee was initially formed to develop requirements related to the ingestion of torch fuel and lamp oil. However, over time, portable fireplaces and flame mitigation devices were added to the subcommittee activities. The subcommittee members discussed broadening the scope of the subcommittee, but not changing the scope of the

current standards and draft standard. On March 11, 2021, ASTM balloted a name change for the subcommittee to “Prefilled Flammable and Combustible Liquid Containers.”

Staff participated in a task group meeting on January 21, 2021, to discuss the persuasive negatives and comments from the ballot. With staff support, the task group agreed to revise the scope of the draft standard to indicate that it is not intended to address flammable or extremely flammable liquids. Staff also engaged with the task group via email after this meeting, to address the negatives and comments from the ballot.

On March 8, 2021, staff sent a letter to the subcommittee chair, requesting that the ASTM F15.72 subcommittee form a new task to address the hazards associated with the color and odor of torch and lamp fuel.

Next Action Staff will continue to work with ASTM and the task group to publish a new voluntary standard on torch fuel and lamp oil packaging. Staff will also participate in all future meetings, including the task group meeting scheduled for April 15, 2021.

Toys

Staff Contact Mordecai, Benjamin

Voluntary Standard(s) ASTM F963-17 Standard Consumer Safety Specification for Toy Safety

Relevant Rulemaking 16 CFR part 1250, *Safety Standard for Toys*

Standard(s) Update The voluntary and mandatory standards listed above were not updated during the reporting period.

Purpose To work with ASTM on revising the voluntary standard to strengthen its safety provisions and to ensure that the voluntary standard and the corresponding federal mandatory standard maintain adequate safety levels addressing hazards associated with toys.

Activities On October 12, 2020, staff participated in an ISO TAG 191 meeting, during which members discussed changes intended to align ASTM F963, EN-71 and ISO 8124-1. Mechanical requirements, phthalates, and age determinations were the primary topics of the meeting.

On October 23, 2020 ASTM, issued an F15 ballot containing nine items pertaining to the toy standard. The topics balloted for revision were as follows: reference documents; tracking labels; definitions; requirements for water-filled toys; XRF alternatives; toy substrates; phthalates; acoustics; and paper and paperboard.

Staff participated in an ASTM subcommittee meeting on November 30, 2020, during which the ballot results were discussed. Several of the items received negative votes, and therefore, ballot items for acoustics and toy substrates are being revised. Other items had administrative negatives, in effect, tabling them to allow for additional comments to be included. Staff agreed to respond to ASTM on language for phthalate requirements and staff's stance on "paper" and "paperboard" definitions. On February 5, 2021, staff sent a letter to ASTM suggesting non-substantive changes for phthalates and toy substrate materials. Additionally, staff cited no issues pertaining to "paper" and "paperboard."

Next Action Staff will participate in upcoming ASTM task group meetings or subcommittee meetings, when scheduled.

Upholstered Furniture

Staff Contact Lock, Andrew

Voluntary Standard(s) ASTM E1353-16 *Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture*

NFPA 260, 2019 Edition *Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture*

Relevant Rulemaking DFR, *Standard for the Flammability of Furniture* (86 FR 18440) and Proposed FR, *Standard for the Flammability of Furniture* (86 FR 18491)

Standard(s) Update The voluntary standards listed above were not updated during the reporting period.

Purpose To work with ASTM, NFPA, and other stakeholders to revise voluntary standards to strengthen safety provisions addressing hazards associated with fires involving upholstered furniture.

Activities Staff participated in two meetings on upholstered furniture during the

reporting period. Staff participated in an ASTM E05.15 meeting on December 7, 2020, during which the subcommittee discussed minor edits to various standards. Staff commented on the status of work items that had been retired or addressed by other standards developers, such as NFPA.

Staff also participated in NFPA Fire Tests Committee meetings held March 1-8, 2021. The NFPA 260 task group reported on potential changes to the NFPA 260 standard. The committee also discussed the status of NFPA 260 in the context of the upcoming federal adoption of California Technical Bulletin 117-2013 (TB 117-2013). Staff provided the publicly available information on Commission activity regarding TB 117.

In December 2020, Congress enacted the *COVID-19 Regulatory Relief and Work From Home Safety Act*, which among other actions, requires the CPSC to adopt TB 117-2013 as a mandatory standard under the Flammable Fabrics Act. On March 30, 2021 the Commission voted to issue a direct final rule and a proposed final rule to codify TB 117-2013 in the Code of Federal Regulations.

Next Action Staff will continue to participate in ASTM E05.15 subcommittee meetings and NFPA 260 meetings. The 3-year revision cycle for NFPA 260 will begin in FY 2021. Staff will continue to work with ASTM, NFPA, and other stakeholders to address hazards associated with fires involving upholstered furniture.

Washing Machines

Staff Contact Kim, Yeon Souk

Voluntary Standard(s) UL 2157, 4th Edition *Electric Clothes Washing Machines and Extractors*

Relevant Rulemaking N/A

Standard(s) Update The voluntary standard listed above was not updated during the reporting period.

Purpose To work with UL to revise the voluntary standard to strengthen its safety provisions addressing hazards associated with an unbalanced load condition of top-loading washing machines.

<i>Activities</i>	Staff had no voluntary standards activity associated with the product category during the reporting period.	
	AHAM contracted a third-party testing lab to evaluate two proposed test methods to evaluate the unbalanced load conditions of top-loading washers. AHAM expects to share test results with staff later in the fiscal year.	
<i>Next Action</i>	Staff will continue to work with UL and AHAM to improve the safety-related requirements in UL 2157. Staff will provide AHAM with comments on testing results. Staff expects AHAM to host a meeting later in the fiscal year, during which a proposal on UL 2157 will be discussed.	

Wearables

<i>Staff Contact</i>	Thomas, Treye	
<i>Voluntary Standard(s)</i>	UL 8400	Potential new voluntary standard for safety for virtual reality (VR), augmented reality (AR) and mixed reality (MR) technology equipment
<i>Relevant Rulemaking</i>	N/A	
<i>Standard(s) Update</i>	The potential new voluntary standard listed above was not completed during the reporting period.	
<i>Purpose</i>	To work with UL, ASTM, and any other SDOs to develop voluntary standards for wearable technologies to keep consumers safe.	
<i>Activities</i>	<p>Staff participated in six UL 8400 Task Group meetings on October 1, 2020, October 7, 2020, October 15, 2020, October 22, 2020, October 27, 2020, and December 1, 2020. These task group meetings focused on developing recommendations, requirements, or both, pertaining to (1) enhancing the spatial perception afforded by Virtual Reality, Augmented Reality, and Mixed Reality head-mounted devices (HMDs), and (2) Allergic Contact Dermatitis sections of the proposed UL 8400 standard. During these task group meetings, staff actively participated in various discussions, including changing section titles, the scope of the testing, and including requirements focused on the release of chemicals from VR components.</p> <p>Staff also participated in three UL 8400 STP meetings on October 27, 2020, January 6, 2021, and January 12, 2021. Each STP meeting included task group reports. The meeting on October 27, 2020, included debate on the duration of VR games and discussions on the ambient temperature. The</p>	

meeting on January 6, 2021, included a discussion on additional requirements concerning adverse health outcomes, such as motion sickness and eyestrain, which could be included in the draft standard. The meeting on January 12, 2021, included discussions on judder, jitter, and flicker, and other potential concerns, such as seizures.

Next Action Staff will continue to engage with a range of stakeholders to develop voluntary standards for wearable technologies to identify, address, and mitigate consumer hazards. Staff will continue to work with the UL 8400 STP and the task groups to develop a new voluntary standard for virtual reality, augmented reality, and mixed reality technology equipment.

Window Coverings

Staff Contact Balci-Sinha, Rana

Voluntary Standard(s) ANSI/WCMA A100.1-2018 *Standard for Safety of Corded Window Covering Products*

Relevant Rulemaking ANPR published in January 2015 (80 FR 2327)

Standard(s) Update The voluntary standard and ANPR listed above were not updated during the reporting period.

Purpose To work with WCMA to revise the voluntary standard to strengthen its safety provisions addressing hazards associated with window covering cords.

Activities Staff had no voluntary standards activity associated with the product category during the reporting period.

Next Action Staff will participate in upcoming committee meetings as they are scheduled, and will review and comment on any ballots issued by WCMA.