



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

This document has been electronically
approved and signed.

DATE: June 6, 2018

BALLOT VOTE SHEET

TO: The Commission
Alberta E. Mills, Secretary

THROUGH: Patricia M. Hanz, General Counsel
Patricia H. Adkins, Executive Director

FROM: Patricia M. Pollitzer, Assistant General Counsel
Barbara E. Little, Attorney, OGC

SUBJECT: Proposed Rule: Safety Standard for Stationary Activity Centers

BALLOT VOTE DUE Tuesday, June 12, 2018

Staff is forwarding to the Commission a briefing package recommending that the Commission issue a proposed rule under section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA), to incorporate by reference the voluntary standard, ASTM F2012-18^{e1}, *Standard Consumer Safety Specification for Stationary Activity Centers*, as the mandatory federal safety standard for stationary activity centers. The Office of General Counsel is providing for Commission consideration the attached draft proposed rule.

Please indicate your vote on the following options:

- I. Approve publication of the attached document in the *Federal Register*, as drafted.

(Signature)

(Date)

II. Approve publication of the attached document in the *Federal Register*, with the specified changes.

(Signature)

(Date)

III. Do not approve publication of the attached document in the *Federal Register*.

(Signature)

(Date)

IV. Take other action specified below.

(Signature)

(Date)

Attachment: Draft *Federal Register* Notice: Proposed Rule to Establish a Safety Standard for Stationary Activity Centers

Billing Code 6355-01-P

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Parts 1112 and 1238

[Docket No. CPSC-2018-XXXX]

Safety Standard for Stationary Activity Centers

AGENCY: Consumer Product Safety Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Danny Keysar Child Product Safety Notification Act, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA), requires the United States Consumer Product Safety Commission (Commission, or CPSC) to promulgate consumer product safety standards for durable infant or toddler products. These standards are to be “substantially the same as” applicable voluntary standards or more stringent than the voluntary standard if the Commission concludes that more stringent requirements would further reduce the risk of injury associated with the product. The Commission is proposing a safety standard for stationary activity centers in response to the direction under Section 104(b) of the CPSIA.

DATES: Submit comments by [INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Comments related to the Paperwork Reduction Act aspects of the marking, labeling, and instructional literature of the proposed rule should be directed to the Office of Information and Regulatory Affairs, OMB, Attn: CPSC Desk Officer, FAX: 202-395-6974, or e-mailed to oir_submission@omb.eop.gov.

Other comments, identified by Docket No. CPSC-2018-XXXX, may be submitted electronically or in writing:

Electronic Submissions: Submit electronic comments to the Federal eRulemaking Portal at: <http://www.regulations.gov>. Follow the instructions for submitting comments. The Commission does not accept comments submitted by electronic mail (e-mail), except through www.regulations.gov. The Commission encourages you to submit electronic comments by using the Federal eRulemaking Portal, as described above.

Written Submissions: Submit written submissions in the following way: Mail/Hand delivery/Courier (for paper, disk, or CD-ROM submissions), preferably in five copies, to: Office of the Secretary, Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-7923.

Instructions: All submissions received must include the agency name and docket number for this proposed rulemaking. All comments received may be posted without change, including any personal identifiers, contact information, or other personal information provided, to: <http://www.regulations.gov>. Do not submit confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. If furnished at all, such information should be submitted in writing.

Docket: For access to the docket to read background documents or comments received, go to: <http://www.regulations.gov>, and insert the docket number, CPSC-2018-XXXX, into the “Search” box, and follow the prompts.

FOR FURTHER INFORMATION CONTACT: Kevin Lee, Project Manager, Mechanical Engineer, Directorate for Engineering Sciences, Consumer Product Safety Commission, 5 Research Place, Rockville, MD 20850; telephone: 301-987-2486; e-mail: klee@cpsc.gov.

SUPPLEMENTARY INFORMATION:

I. Background and Statutory Authority

The Consumer Product Safety Improvement Act of 2008 (CPSIA, Pub. L. No. 110-314) was enacted on August 14, 2008. Section 104(b) of the CPSIA, part of the Danny Keysar Child Product Safety Notification Act, requires the Commission to: (1) examine and assess the effectiveness of voluntary consumer product safety standards for durable infant or toddler products, in consultation with representatives of consumer groups, juvenile product manufacturers, and independent child product engineers and experts; and (2) promulgate consumer product safety standards for durable infant and toddler products. These standards are to be “substantially the same as” applicable voluntary standards or more stringent than the voluntary standard if the Commission concludes that more stringent requirements would further reduce the risk of injury associated with the product. The term “durable infant or toddler product” is defined in section 104(f)(1) of the CPSIA as “a durable product intended for use, or that may be reasonably expected to be used, by children under the age of 5 years.”

In this document, the Commission is proposing a safety standard for stationary activity centers (SACs). “Stationary Activity Centers” are specifically identified in section 104(f)(2)(G) of the CPSIA as a durable infant or toddler product. Pursuant to Section 104(b)(1)(A), the Commission consulted with manufacturers, retailers, trade organizations, laboratories, consumer advocacy groups, consultants, and members of the public in the development of this proposed standard, largely through the ASTM process. The proposed rule is based on the voluntary standard developed by ASTM International (formerly the American Society for Testing and Materials), ASTM F2012-18^{e1}, *Standard Consumer Safety Specification for Stationary Activity Centers* (ASTM F2012-18^{e1}).

The ASTM standard is copyrighted, but it can be viewed as a read-only document during the comment period on this proposal, at: <http://www.astm.org/Standards/F833.htm>, by permission of ASTM.

II. Product Description

A. Definition of “Stationary Activity Center”

ASTM F2012-18^{e1} defines a SAC as “a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product to walk, rock, play, spin or bounce, or all of these, within a limited range of motion.”¹ The intended users of SACs are children who have not yet reached the developmental milestone of walking. The product is intended for children who are able to hold up their heads unassisted. SACs vary in style and design complexity, but typically consist of a seating area that is suspended from a frame by springs, or supported from the bottom by a fixed base. The updated standard includes a definition of a “spring-supported SAC,” which is described as “a stationary activity center in which the sitting or standing platform is supported from below or suspended from above by springs (or equivalent resilient members).” For spring-supported SACs, children should not be able to have their feet flat on the ground when using the product. Doorway jumpers are not included in the definition of “stationary activity centers.”

B. Market Description

SACs typically range in price from \$30 to \$150, with spring-supported SACs typically ranging from \$50 to \$150. Some manufacturers produce multiple models and several produce models that are similar in design, but with different accessories. SACs typically accommodate children who weigh less than 25 pounds and have a maximum height of 32 inches.

¹ ASTM F2012 §3.1.9.

There were approximately 7.5 million (95% confidence interval (CI) between 6.2 million and 8.8 million) SACs in national households with children under the age of 5 in 2013, according to CPSC's 2013 Durable Nursery Product Exposure Survey (DNPES). However, based on the same data, only about 4.1 million of these were actually in use (95% CI between 3.1 million and 5.2 million).

III. Incident Data

The Commission is aware of a total of 3,488 reported incidents related to SACs that occurred between January 1, 2013 and September 30, 2017. The characterization of the deaths, injuries, and types of hazards is based on incident reports received by CPSC staff. Information on 92 percent (3,217 out of 3,488) of the incidents was based solely on reports submitted to CPSC by manufacturers and retailers through CPSC's "Retailer Reporting Program." Because reporting is ongoing, the number of reported incidents may change. The number of emergency department-treated injuries associated with SACs, for the timeframe covered, was insufficient to derive any reportable national estimates.² Consequently, CPSC staff is not providing injury estimates. However, the emergency department-treated injuries are included in the total count of reported incidents presented in this section.

A. Fatalities

CPSC does not have any reports of fatalities associated with the use of SACs occurring between January 1, 2013 and September 30, 2017.

B. Nonfatalities

The Commission is aware of a total of 304 nonfatal injury incidents related to SACs that reportedly occurred between January 1, 2013 and September 30, 2017.

² According to the NEISS publication criteria, an estimate must be 1,200 or greater, the sample size must be 20 or greater, and the coefficient of variation must be 33 percent or smaller.

Twenty-four children were reported to have been treated at, and released from, a hospital emergency department (ED). A majority of them suffered a fall, resulting in head injuries, limb fractures, and contusions. A few children treated in hospital EDs suffered unexplained foot/leg/pelvic bruising, fractures, and/or swelling while jumping in the product. One child had an allergic reaction to the product's finish or materials, while two children suffered from limb entrapments when using the product.

Among the remaining 280 injury reports, some specifically mentioned the type of injury, while others only mentioned an injury, but provided no specifics about the injury. Fractures, head injuries, concussions, teeth injury, abrasions, contusions, and lacerations were among some of the commonly reported injuries.

The remaining 3,184 incidents reported that no injury had occurred or provided no information about any injury. However, many of the descriptions indicated the potential for a serious injury.

C. Hazard Pattern Identification

CPSC staff considered all 3,488 reported incidents to identify hazard patterns associated with the use of SACs. Most of the reported problems were product-related issues. In order of descending frequency, the problems were as follows:

- ***Spring support*** issues: In 1,617 of the 3,488 incidents (46 percent), there was a report of some sort of a problem with the springs that suspend the seat from the product's frame. In most cases, the springs were reported to have broken, twisted, overstretched, or failed in some other manner. Twenty-seven injuries, including one ED-treated injury, were reported in this category.

- Problems with *toy accessories*: 1,075 of the 3,488 incidents (31 percent) reported problems with toy accessories attached to the product. The problems were with toys:
 - forcefully striking the child, usually on the face
 - pinching or entrapping limbs or extremities
 - posing a laceration hazard due to sharp edges or surfaces
 - causing gagging while mouthing the toy
 - posing an entanglement hazard because of the long ribbons/strings attached
 - posing a choking hazard due to small parts detaching.

One hundred fifty-six injuries, including two ED-treated injuries, were reported in this category.

- *Support strap* issues: 306 of the 3,488 incidents (9 percent) reported straps that tore, frayed, twisted, or detached. The strap system on a SAC is typically the primary means by which most spring-suspended activity centers are supported. If the strap (to which a support spring is attached) fails, the activity center is often left unsupported on one side and typically results in a fall of the child. Thirty injuries were reported in this category.
- *Structural integrity* problems: 158 of the 3,488 incidents (5 percent) reported some problem with structural components such as:
 - locks, which led to product collapse, detachment of the top and bottom parts of the exerciser, or failure of the height adjustment mechanism
 - snap buttons/fasteners breaking during regular use, delivery, or assembly/disassembly
 - tube/frame/post separating, bending, or getting damaged in some other manner
 - various small parts (often unspecified) detaching
 - screws/nuts/bolts loosening and falling out.

Twelve injuries were reported in this category.

- Problems with *seats/seat pads*: 122 of the 3,488 incidents (4 percent) reported problems specific to the seat or the seat pad. Examples include:
 - tabs, used to attach the pad to the seat frame, breaking, tearing, or separating
 - the stitching on the pad fraying or tearing
 - the leg openings designed to be inadequately constrictive
 - rough material used for the pad.

Twelve injuries were reported in this category.

- **Stability** issues: 76 of the 3,488 incidents (2 percent) reported problems with flimsy and/or unstable products. Specifically, the incidents described:
 - frame/posts/seat/unit leaning to one side and not sitting level
 - legs lifting up during use
 - the product toppling over.

Four children were reported injured in these incidents.

- **Electrical** problems: 36 of the 3,488 incidents (1 percent) reported leakage and/or corrosion in the batteries or failure of the circuit board on the product. Two injuries were reported in this category.
- **Design** issues: 32 of the 3,488 incidents (1 percent) reported some problems with the design of the product. There were reports of:
 - limb/extremity entrapment between parts of the exerciser
 - failure of the seat to contain the child within
 - poor choice for the placement of structural components that made it easier for a child to get hurt during routine use.

There were 20 injuries, including two treated in a hospital ED, in this category.

- **Miscellaneous other** issues: 22 of the 3,488 incidents (less than 1 percent) reported a variety of other general product-related issues, such as:
 - rough surface, sharp edges, or protrusions
 - paint/finish
 - product packaging
 - fall of product from an elevated surface
 - sales of recalled or modified products at a consignment store or a garage sale.

Thirteen injuries, including four treated at hospital EDs, were reported in this category.

- **Multiple problems** from among the above-listed categories: 20 of the 3,488 incidents (less than 1 percent) reported two or more problems from the preceding product-related issues.³ CPSC staff could not determine if there was any priority (*e.g.*, primary, secondary) among the order in which issues were reported. Five injuries were reported in this category.
- **Unspecified/Unknown** issues: 24 of the 3,488 incident reports (less than 1 percent) provided incomplete or unclear descriptions of the scenario; as such, CPSC staff was unable to identify the problem. Twenty-three injuries, mostly falls, were reported in this category; 15 of these injuries were treated in a hospital ED.

D. Product Recalls

Compliance staff reviewed recalls involving SACs from January 2013 to March 2018.

During that period, one consumer-level recall occurred involving a Kids II, Inc., stationary

³ Redistributing these 20 complaints among the other pertinent categories already listed does not alter the ranking of the listed categories. However, the redistribution would result in the incident numbers adding up to *more* than the total number of reported incidents. To prevent that, the 20 incidents were grouped in this category separately.

activity center.⁴ A recall was initiated because one of the toy attachments on the SAC posed an impact hazard when it rebounded. The recall involved 400,000 units. The firm received 100 reports of incidents, including 61 reported injuries from the hazard. The injuries included bruises and lacerations to the face; in addition, a 7-month-old sustained a lineal skull fracture, and an adult suffered a chipped tooth.

IV. Other Standards and History of ASTM F2012-18^{e1}

A. International Standards

CPSC staff found no comparable international standard similar to ASTM F2012-18^{e1} that addresses SACs.

B. History of Voluntary Standard – ASTM F2012

The voluntary standard for SACs was first approved and published in April 2000, as ASTM F2012-00, *Standard Consumer Safety Specification for Stationary Activity Centers*. The standard has been revised nine times since its publication. The current version, ASTM F2012-18^{e1}, was approved on May 18, 2018.

ASTM F2012-00 (approved on April 10, 2000), established performance requirements to address the following:

- Latching or Locking Mechanisms - for SACs that fold for storage, this requirement helps prevent unintentional folding during use.
- Openings – Assesses the accessibility of slots or cracks in the unit to ensure that the occupant’s extremities (fingers, toes) cannot be caught or trapped while not in motion.

⁴ CPSC website link to recalled product: <https://www.cpsc.gov/Recalls/2013/Kids-II-Recalls-Baby-Einstein-Activity-Jumpers/>.

- Scissoring, Shearing, Pinching – Dynamically assesses accessible slots to prevent injury from moving parts throughout the range of movement.
- Exposed Coil Springs – Sets a requirement for the spacing between the coils of any accessible spring element to prevent entrapment.
- Labeling – Assesses the permanency of labeling, as well as label removal, which may involve creating small parts.
- Structural Integrity – Includes dynamic and static loading, to determine any collapsing or failure modes that may occur during the lifecycle of the unit.
- Occupant Retention – Evaluates the leg openings of the activity center to prevent entrapment of the torso, neck, or head.
- Stability – Assesses the stability of a seated occupant leaning outside of the unit.
- Protective Components – Determines whether a child can grasp/bite and remove, protective caps, shields, sleeves, and plugs. If so, determine if a hazard exists (*i.e.*, small parts, sharp edges, sharp points, or entrapments).

Later versions of the standard added other requirements, such as:

protective components for open-base SACs and SACs that do and do not rotate around a central stationary post.

ASTM F2012-18 (approved on March 1, 2018):

- added a definition of “closed-base stationary activity center”;
- added definition of “spring-supported stationary activity center”;
- added section requiring that spring-supported stationary activity centers have a redundant system in place, to prevent the seat from falling should any spring component fail. Upon

failure, the redundant system must keep the child in place at a rest angle no more than 25° from horizontal.

ASTM F2012-18^{e1}, approved on May 18, 2018, corrected errors and made editorial revisions to the standard.

V. Adequacy of ASTM F2012-18^{e1} Requirements

The Commission concludes that the current voluntary standard, ASTM F2012-18^{e1}, sufficiently addresses many of the general hazards associated with the use of SACs, such as sharp points, small parts, lead in paint, scissoring, shearing, pinching, openings, exposed coil springs, locking and latching, unintentional folding, labeling, protective components, flammability, and toy accessories that are sold with the carrier, given the low frequency and low severity of incidents and injuries reported.

This section discusses the four primary hazard patterns that account for the majority of the reported incidents and injuries; Springs – 46 percent, Toy Accessories – 31 percent, Straps – 9 percent; Structural integrity – 5 percent, and how each is addressed in the current voluntary standard, ASTM F2012-18^{e1}.

A. Spring Support Failure

This hazard is associated with 46 percent of the reported incidents (9 percent of injuries). Reports of support spring failures typically involved a common type of SAC scenario, in which the child and activity tray are suspended by springs from multiple points. These hazards often involve the failure of one or more members of the spring system, which causes the occupant to dynamically tilt, tip, topple, or lean from the manufacturer's recommended-use position, which can result in the occupant falling out of the activity center. The 2018 version of the voluntary standard (ASTM F2012-2018^{e1}) addressed spring failures with a performance requirement that

support springs withstand 100 drops from a 33-lb. weight from a height of at least 1 inch. CPSC staff presented the incident data to the voluntary standards committee and suggested a secondary support for load bearing springs. Consequently, ASTM F2012-2018^{e1} also requires a redundant system to prevent the seat from falling should the spring fail. Because this support strap would function as a fail-safe if springs break, including springs not identified during the dynamic load and life-cycle tests, the Commission concludes that this change will address the hazard pattern identified.

B. Problems with Toy Accessories

This hazard pattern is associated with 31 percent of the reported incidents and 51 percent of the injuries. The majority of the incidents involved pinching, laceration, choking/gagging, and entanglement injuries. ASTM F2012-2018^{e1} addresses hazards associated with toys, by requiring that toy accessories meet the relevant requirements of ASTM F963-2017, *Standard Consumer Safety Specification for Toy Safety*. The Commission believes that the majority of the hazards related to toy accessories are adequately addressed by ASTM F963; therefore, the Commission believes that the current voluntary standard for stationary activity centers, ASTM F2012-2018^{e1} adequately addresses this hazard.

C. Support Strap Failure

This hazard pattern is associated with 9 percent of the reported incidents and 10 percent of the injuries, and it includes straps that break, twist, fray, or detach. The strap system on a SAC is typically the primary means by which most spring-suspended activity centers are supported (see Figure 1). Upon failure of the occupant support strap, the activity center is often left unsupported on one side, and this typically results in the child falling.

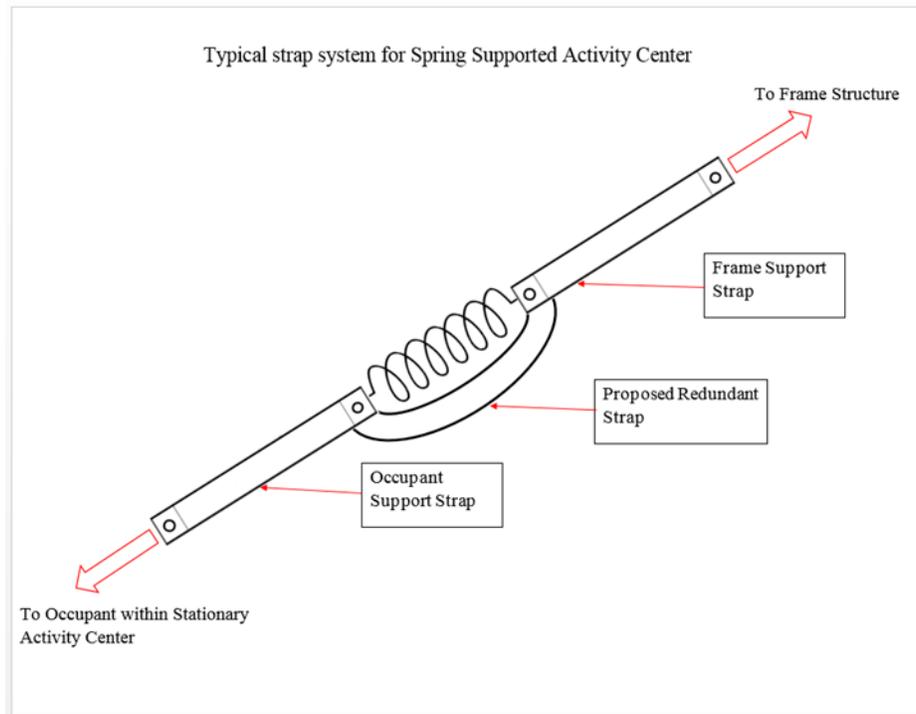


Figure 1: Typical strap system for spring-supported activity centers; System is used multiple times on one product to support occupants' weight, and allows occupant to bounce.

There are no specific requirements for support straps, although ASTM F2012- 18^{e1} requires dynamic and static loading at the seat of the product to evaluate the durability of the support structures for the seat. This testing also stresses the structural integrity components of the product, which include support straps; and the standard requires that the product shows no seam failure, breakage of materials, or changes of adjustments that could cause the product not to support the child fully. The severity of injury produced by this potential hazard is relatively low.

While preparing the briefing package for this notice of proposed rulemaking, CPSC staff learned of an additional failure mode of the occupant support strap. The additional information suggested that some occupant support strap failures have resulted from abrasions of a strap against a metal buckle during normal use. Staff determined that this scenario is not addressed by the requirements in ASTM F2012-18^{e1}. On April 27, 2018, staff sent a letter to ASTM asking

ASTM to consider modifying the standard, as indicated below (underlining indicates language staff suggests added):

6.1 *Structural Integrity*—All tests that cover static and dynamic loading, and occupant retention, are to be performed on the same product, sequentially and without refurbishing or repositioning of adjustment, if any. At test conclusion, there shall be no fraying, tearing, or failure of textile materials, such as seams or straps; breakage of materials; or changes of adjustments that could cause the product to not fully support the child or create a hazardous condition as defined in Section 5. Maximum slippage of adjustable features, if any, is 1 in. (25 mm).

ASTM set up a task group, of which CPSC will be a part, to look into strap-related failures. The Commission invites comments from the public on the necessity of these modifications to the structural integrity requirements.

D. Structural Integrity

This hazard pattern is associated with 5 percent of the reported incidents and 4 percent of the injuries. Incidents involve failure of structural components, such as locking mechanisms, fasteners, and frame tubing. There are no specific requirements for the structural components of a SAC, but ASTM F2012-2018^{e1} requires dynamic and static loading at the seat of the product to evaluate the durability of the support structures for the seat. This testing also stresses the structural integrity components of the product, and the standard requires that the product show no failure of seams, breakage of materials, or changes of adjustments that could cause the product not to fully support the child.

Because of the relatively low frequency of this potential hazard, as well as the minor injury severity produced, the Commission believes that the current voluntary standard adequately addresses the structural integrity of stationary activity centers.

E. Warnings

Before publishing the current version of ASTM F2012-18^{e1}, typical warning labels on SACs were composed of paragraph-form messages on a black and white label. Although the labels met the voluntary standard requirements for warning statements at the time, the labels were not conspicuous or consistent in format with other juvenile product warning labels.

Several subcommittee members associated with the ASTM F15 juvenile product/durable nursery products raised concerns about inconsistency among various durable nursery product rules, and ASTM formed an Ad Hoc Wording Task Group to harmonize the wording and language used across nursery product standards. CPSC staff worked closely with the Ad Hoc Task Group to develop recommendations that are based largely on the requirements of ANSI Z535.4, American National Standard for Product Safety Signs and Labels.

In October 2016, the Ad Hoc Task Group published a working document titled, “Ad Hoc Wording – October 16, 2016.” Since then, the juvenile product subcommittees have been incorporating the formatting recommendations into their standards. The latest version of the “Recommended Language Approved by Ad Hoc Task Group, Revision C” document is dated November 10, 2017, and it is published in the “Committee Documents” section of the Committee F15 ASTM website. In August 2017, new requirements for formatting warning labels were balloted and accepted by the F15.17 subcommittee for Stationary Activity Centers, and these new requirements are reflected in F2012-18^{e1}.

The work of the Ad Hoc Task Group resulted in permanent, conspicuous, and consistently formatted warning labels across juvenile products. On-product warning labels that meet the requirements in ASTM F2012-18^{e1} will address numerous warning format issues related to capturing consumer attention, improving readability, and increasing hazard perception and

avoidance behavior. The Commission concludes that the warnings adequately inform consumers of the fall and strangulation hazards, the consequences of those hazards, and instructions on how to reduce the risks of injury and death due to falls and strangulation.

VI. Incorporation by Reference

The Commission is proposing to incorporate by reference ASTM F2012-18^{e1}, without change. The Office of the Federal Register (OFR) has regulations concerning incorporation by reference. 1 CFR part 51. These regulations require that, for a proposed rule, agencies discuss in the preamble to the NPR ways that the materials the agency proposes to incorporate by reference are reasonably available to interested persons, or explain how the agency worked to make the materials reasonably available. In addition, the preamble to the proposed rule must summarize the material. 1 CFR 51.5(a).

In accordance with the OFR's requirements, section IV.B of this preamble summarizes the provisions of ASTM F2012-18^{e1} that the Commission proposes to incorporate by reference. ASTM F2012-18^{e1} is copyrighted. By permission of ASTM, the standard can be viewed as a read-only document during the comment period on this NPR, at <http://www.astm.org/cpsc.htm>. Interested persons may also purchase a copy of ASTM F2012-18^{e1} from ASTM, through its website (<http://www.astm.org>), or by mail from ASTM International, 100 Bar Harbor Drive, P.O. Box 0700, West Conshohocken, PA 19428; <http://www.astm.org>. Alternatively, interested parties may inspect a copy of the standard at CPSC's Office of the Secretary.

VII. Effective Date

The Administrative Procedure Act (APA) generally requires that the effective date of a rule be at least 30 days after publication of the final rule (5 U.S.C 553(d)). The Commission proposes that the standard become effective 6 months after publication of a final rule in the

Federal Register. Barring evidence to the contrary, CPSC generally considers 6 months to be sufficient time for suppliers to come into compliance with a new standard, and this is typical for other CPSIA section 104 rules. Six months is also the period that the Juvenile Products Manufacturers Association (JPMA) typically allows for products in their certification program to shift to a new standard once that new standard is published. The Commission is not aware of any information suggesting that 6 months is not an appropriate time frame for suppliers to come into compliance. Therefore, juvenile product manufacturers are accustomed to adjusting to new standards within this time frame.

VIII. Assessment of Small Business Impact

A. Introduction

The Regulatory Flexibility Act (RFA) requires that proposed rules be reviewed for their potential economic impact on small entities, including small businesses. Section 603 of the RFA requires that agencies prepare an initial regulatory flexibility analysis (IRFA) and make it available to the public for comment when the general notice of proposed rulemaking (NPR) is published, unless the head of the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. The Commission certifies that this rule incorporating by reference ASTM F2012-18^{e1} as a CPSC standard will not have a significant impact on a substantial number of small entities involved in the manufacturing or importing of SACs.

B. Small Entities to Which the Proposed Rule Would Apply

The Commission identified 11 U.S. manufacturers of SACs. The U.S. Small Business Administration (SBA) size guidelines for this category identifies any manufacturer as “small” if it employs fewer than 500 employees. Based on this definition, seven out of the 11 U.S.

manufacturers of SACs would be considered small. For importers, SBA guidelines consider an importer under the NAICS category 423920 (Toy and Hobby Goods and Supplies Merchant Wholesalers) with fewer than 150 employees to be small. The Commission did not identify any small importers of SACs per SBA guidelines.

C. Costs of Proposed Rule that Would Be Incurred by Small Manufacturers

In addition to any costs associated with modifying a product to comply with ASTM F2012-18^{e1}, which includes the integration of the redundant strap, mandating the standard under Section 104 of the CPSIA would also require manufacturers to certify that their SACs comply with the standard, based on tests conducted by third party conformity assessment bodies. The Commission believes that all seven small domestic manufacturers of SACs are currently certified by the Juvenile Products Manufacturers Association (JPMA), meaning that their products comply with ASTM F2012-16 and the companies are already conducting some third party testing on their SACs.

The additional requirements of ASTM F2012-18^{e1} may require a minor modification for manufacturers of spring-supported SACs. Of the three such manufacturers, we have confirmed that two have already integrated a redundant strap, a new requirement of ASTM F2012-18^{e1}. If the third manufacturer has not yet integrated a redundant strap, we believe that the cost to do so would be less than 50 cents per unit.

Additional costs that small manufacturers would incur as a result of the proposed rule, if finalized, include incremental costs associated with meeting the third party testing requirements. This would apply to those that manufacture any type of SAC, not just spring-supported SACs. If the ASTM F2012-18^{e1} requirements become effective as a CPSC children's product safety rule, all manufacturers of SACs will be subject to the third party testing and certification requirements

under section 14 of CPSA and the Testing and Labeling Pertaining to Product Certification rule (16 CFR part 1107) (1107 rule). Third party testing will include any physical and mechanical test requirements specified in the final SAC rule. The Commission found that all seven small manufacturers of SACs are certified by JPMA and are currently conducting third party testing. Those that manufacture spring-supported SACs will need to have the redundant strap tested to the standard, which we do not estimate will be a significant cost.

Generally, CPSC considers impacts that exceed 1 percent of a firm's revenue to be potentially significant. Because all seven manufacturers are JPMA certified, we believe that the only costs that may be introduced with this standard are for the integration of a redundant strap for one firm and the testing of that strap for all three firms that manufacture spring-supported SACs. Because the smallest manufacturer of spring-supported SACs has annual revenues of approximately \$4 million, we do not expect that the added costs associated with this rule will reach the 1 percent threshold for any of the producers of SACs. However, at this time, CPSC has not considered any potential impact on firms resulting from modifying the current voluntary standard to address the potential for abrasion on the support straps that might cause them to fray or break. Staff intends to work with ASTM on this modification. Any changes to the voluntary standard and/or proposed regulation will be assessed before completing a final rule.

IX. Environmental Considerations

The Commission's regulations address whether we are required to prepare an environmental assessment or an environmental impact statement. 16 CFR part 1021. Those regulations state that certain categories of CPSC actions normally have "little or no potential for affecting the human environment," and therefore, do not require an environmental assessment or an environmental impact statement. 16 CFR 1021.5(c)(1). Rules or safety standards that

provide design or performance requirements for products are among the listed exempt actions. Thus, the proposed rule falls within the categorical exemption.

X. Paperwork Reduction Act

This proposed rule contains information-collection requirements that are subject to public comment and review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3521). In this document, pursuant to 44 U.S.C. 3507(a)(1)(D), we set forth:

- a title for the collection of information;
- a summary of the collection of information;
- a brief description of the need for the information and the proposed use of the information;
- a description of the likely respondents and proposed frequency of response to the collection of information;
- an estimate of the burden that shall result from the collection of information; and
- notice that comments may be submitted to the OMB.

Title: Safety Standard for Stationary Activity Centers

Description: The proposed rule would require each stationary activity center to comply with ASTM F2012-18^{e1}, Standard Consumer Safety Performance Specification for Stationary Activity Centers. Sections 8 and 9 of ASTM F2012-18^{e1} contain requirements for marking, labeling, and instructional literature. These requirements fall within the definition of “collection of information,” as defined in 44 U.S.C. 3502(3).

Description of Respondents: Persons who manufacture or import stationary activity centers.

Estimated Burden: We estimate the burden of this collection of information, as follows:

Table 1 – Estimated Annual Reporting Burden

16 CFR Section	Number of Respondents	Frequency of Responses	Total Annual Responses	Hours per Response	Total Burden Hours
1238	11	4	44	1	44

Our estimates are based on the following:

Section 8.1.1 of ASTM F2012-18^{e1} requires that the name and the place of business (city, state, mailing address, including zip code, or telephone number) of the manufacturer, distributor, or seller be marked clearly and legibly on each product and its retail package. Section 8.1.2 of ASTM F833-13 requires a code mark or other means that identifies the date (month and year, as a minimum) of manufacture.

There are 11 known entities supplying stationary activity centers to the U.S. market. These entities may need to modify their existing labels to comply with ASTM 2012-18^{e1}. CPSC estimates that the time required to make these modifications is about 1 hour per model. Each entity supplies an average of four different models of stationary activity centers; therefore, the estimated burden associated with labels is 1 hour per model x 11 entities x 4 models per entity = 44 hours. CPSC estimates the hourly compensation for the time required to create and update labels is \$34.21 (U.S. Bureau of Labor Statistics, “Employer Costs for Employee Compensation,” Sep. 2017, Table 9, total compensation for all sales and office workers in goods-producing private industries: <http://www.bls.gov/ncs/>). Therefore, the estimated annual cost to industry associated with the proposed labeling requirements is \$1, 505 (\$34.21 per hour x 44 hours = \$1,505). There are no operating, maintenance, or capital costs associated with the collection.

Section 9.1 of ASTM F2012-18^{e1} requires instructions to be supplied with stationary activity centers. Stationary activity centers generally require use and assembly instructions. As such, products sold without use and assembly instructions would not compete successfully with products supplying this information. Under OMB’s regulations, the time, effort, and financial resources necessary to comply with a collection of information incurred by persons in the “normal course of their activities” are excluded from a burden estimate when an agency demonstrates that the disclosure activities required are “usual and customary.” 5 CFR 1320.3(b)(2). CPSC is unaware of stationary activity centers that generally require use or assembly instructions but lack such instructions. Therefore, CPSC estimates that no burden hours are associated with section 9.1 of ASTM F2012-18,^{e1} because any burden associated with supplying instructions with stationary activity centers would be “usual and customary,” and thus, excluded from “burden” estimates under OMB’s regulations. Based on this analysis, the proposed standard for stationary activity centers would impose a burden to industry of 44 hours at a cost of \$1,505 annually.

In compliance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), we have submitted the information-collection requirements of this rule to OMB for review. Interested persons are requested to submit comments regarding information collection by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], to the Office of Information and Regulatory Affairs, OMB (see the ADDRESSES section at the beginning of this notice).

Pursuant to 44 U.S.C. 3506(c)(2)(A), we invite comments on:

- whether the collection of information is necessary for the proper performance of the CPSC’s functions, including whether the information will have practical utility;

- the accuracy of the CPSC’s estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- ways to enhance the quality, utility, and clarity of the information to be collected;
- ways to reduce the burden of the collection of information on respondents, including the use of automated collection techniques, when appropriate, and other forms of information technology; and the estimated burden hours associated with label modification, including any alternative estimates.

XI. Preemption

Section 26(a) of the CPSA, 15 U.S.C. 2075(a), provides that where a consumer product safety standard is in effect and applies to a product, no state or political subdivision of a state may either establish or continue in effect a requirement dealing with the same risk of injury unless the state requirement is identical to the federal standard. Section 26(c) of the CPSA also provides that states or political subdivisions of states may apply to the Commission for an exemption from this preemption under certain circumstances. Section 104(b) of the CPSIA refers to the rules to be issued under that section as “consumer product safety rules,” thus implying that the preemptive effect of section 26(a) of the CPSA would apply. Therefore, a rule issued under section 104 of the CPSIA will invoke the preemptive effect of section 26(a) of the CPSA when it becomes effective.

XII. Certification and Notice of Requirements (NOR)

Section 14(a) of the CPSA imposes the requirement that products subject to a consumer product safety rule under the CPSA, or to a similar rule, ban, standard or regulation under any other act enforced by the Commission, must be certified as complying with all applicable CPSC-enforced requirements. 15 U.S.C. 2063(a). Section 14(a)(2) of the CPSA requires that

certification of children's products subject to a children's product safety rule be based on testing conducted by a CPSC-accepted third party conformity assessment body. Section 14(a)(3) of the CPSA requires the Commission to publish a notice of requirements (NOR) for the accreditation of third party conformity assessment bodies (or laboratories) to assess conformity with a children's product safety rule to which a children's product is subject. The proposed rule for 16 CFR part 1238, "Safety Standard for Stationary Activity Centers," when issued as a final rule, will be a children's product safety rule that requires the issuance of an NOR.

The Commission published a final rule, *Requirements Pertaining to Third Party Conformity Assessment Bodies*, 78 FR 15836 (March 12, 2013), which is codified at 16 CFR part 1112 (referred to here as Part 1112). This rule took effect June 10, 2013. Part 1112 establishes requirements for accreditation of third party conformity assessment bodies (or laboratories) to test for conformance with a children's product safety rule in accordance with Section 14(a)(2) of the CPSA. The final rule also codifies all of the NORs that the CPSC had published to date. All new NORs, such as the stationary activity center standard, require an amendment to part 1112. Accordingly, in this document we propose to amend part 1112 to include the stationary activity center standard along with the other children's product safety rules for which the CPSC has issued NORs.

Laboratories applying for acceptance as a CPSC-accepted third party conformity assessment body to test to the new standard for stationary activity centers would be required to meet the third party conformity assessment body accreditation requirements in part 1112. When a laboratory meets the requirements as a CPSC-accepted third party conformity assessment body, it can apply to the CPSC to have 16 CFR part 1238, *Safety Standard for Stationary Activity*

Centers, included in its scope of accreditation of CPSC safety rules listed for the laboratory on the CPSC website at: www.cpsc.gov/labsearch.

In connection with the part 1112 rulemaking, CPSC staff conducted an analysis of the potential impacts on small entities of the proposed rule establishing accreditation requirements, 77 FR 31086, 31123-26 (May 24, 2012), as required by the Regulatory Flexibility Act and prepared an Initial Regulatory Flexibility Analysis (IRFA). The IRFA concluded that the requirements would not have a significant adverse impact on a substantial number of small laboratories because no requirements are imposed on laboratories that do not intend to provide third party testing services under section 14(a)(2) of the CPSA. The only laboratories that are expected to provide such services are those that anticipate receiving sufficient revenue from providing the mandated testing to justify accepting the requirements as a business decision. Laboratories that do not expect to receive sufficient revenue from these services to justify accepting these requirements would not likely pursue accreditation for this purpose. Similarly, amending the part 1112 rule to include the NOR for stationary activity centers would not have a significant adverse impact on small laboratories. Moreover, based upon the number of laboratories in the United States that have applied for CPSC acceptance of the accreditation to test for conformance to other juvenile product standards, we expect that only a few laboratories will seek CPSC acceptance of their accreditation to test for conformance with the stationary activity center standard. Most of these laboratories will have already been accredited to test for conformance to other juvenile product standards and the only costs to them would be the cost of adding the stationary activity center standard to their scope of accreditation. As a consequence, the Commission certifies that the proposed notice requirements for the stationary activity center

standard will not have a significant impact on a substantial number of small entities.

XIII. Request for Comments

This proposed rule begins a rulemaking proceeding under section 104(b) of the CPSIA to issue a consumer product safety standard for stationary activity centers. We invite all interested persons to submit comments on any aspect of the proposed rule.

In particular, the Commission invites comments on the necessity of additional requirements pertaining to the potential fraying of the support straps on SACs.

Comments should be submitted in accordance with the instructions in the **ADDRESSES** section at the beginning of this notice.

List of Subjects

16 CFR Part 1112

Administrative practice and procedure, Audit, Consumer protection, Reporting and recordkeeping requirements, Third party conformity assessment body.

16 CFR Part 1238

Consumer protection, Imports, Incorporation by reference, Infants and children, Labeling, Law enforcement, and Toys.

For the reasons discussed in the preamble, the Commission proposes to amend Title 16 of the Code of Federal Regulations as follows:

PART 1112—REQUIREMENTS PERTAINING TO THIRD PARTY CONFORMITY ASSESSMENT BODIES

1. The authority citation for part 1112 continues to read as follows:

Authority: 15 U.S.C. 2063; Pub. L. 110-314, section 3, 122 Stat. 3016, 3017 (2008).

2. Amend § 1112.15 by adding paragraph (b)(48) to read as follows:

§ 1112.15 When can a third party conformity assessment body apply for CPSC acceptance for a particular CPSC rule and/or test method?

* * * * *

(b) The CPSC has published the requirements for accreditation for third party conformity assessment bodies to assess conformity for the following CPSC rules or test methods:

* * * * *

(48) 16 CFR part 1238, Safety Standard for Stationary Activity Centers.

PART 1238-SAFETY STANDARD FOR STATIONARY ACTIVITY CENTERS

Sec.

1227.1 Scope.

1227.2 Requirements for stationary activity centers.

Authority: Sec. 104, Pub. L. 110-314, 122 Stat. 3016 (15 U.S.C. 2056a).

§ 1227.1 Scope.

This part establishes a consumer product safety standard for stationary activity centers.

§ 1227.2 Requirements for stationary activity centers.

Each stationary activity center must comply with all applicable provisions of ASTM F2012-18^{e1}, Standard Consumer Safety Specification for Stationary Activity Centers, approved on _____, 2018. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from ASTM International, 100 Bar Harbor Drive, P.O. Box 0700, West Conshohocken, PA 19428; <http://www.astm.org/cpsc.htm>. You may inspect a copy at the Office of the Secretary, U.S.

Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Dated: _____

Alberta E. Mills,
Secretary, Consumer Product Safety Commission



Draft Notice of Proposed Rule for Stationary Activity Centers Under the Danny Keysar Child Product Safety Notification Act

June 2018

Table of Contents

Briefing Memorandum.....	3
TAB A: Stationary Activity Centers-Related Deaths, Injuries, and Potential Injuries; January 1, 2013–September 30, 2017.....	14
TAB B: Staff’s Review and Evaluation of the Effectiveness of ASTM F2012-18 ^{e1} , <i>Standard Consumer Safety Specification for Stationary Activity Centers</i> , in Addressing Emerging Hazards	21
TAB C: Human Factors Assessment of ASTM F2012-18 ^{e1} Requirements for Stationary Activity Centers (CPSIA Section 104).....	31
TAB D: Durable Nursery Products: Summary of Stationary Activity Center Recalls from January 2013 to March 2018.....	37
TAB E: Regulatory Flexibility Analysis of the Draft Proposed Rule for Stationary Activity Centers.....	40

Briefing Memorandum



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

This document has been electronically
approved and signed.

Memorandum

June 5, 2018

TO: The Commission
Alberta E. Mills, Secretary

THROUGH: Patricia M. Hanz, General Counsel
Patricia H. Adkins, Executive Director

FROM: George Borlase, Assistant Executive Director
Office of Hazard Identification and Reduction

Kevin Lee, Project Manager
Directorate for Engineering Sciences

SUBJECT: Staff's Draft Notice of Proposed Rule for Stationary Activity Center under the
Danny Keysar Child Product Safety Notification Act

I. INTRODUCTION

Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA) is the Danny Keysar Child Product Safety Notification Act. This Act requires the U.S. Consumer Product Safety Commission (CPSC or the Commission) to: (1) examine and assess voluntary safety standards for certain infant or toddler products, and (2) promulgate mandatory consumer product safety standards that are substantially the same as or more stringent than the voluntary standards if the Commission determines that more stringent standards would further reduce the risk of injury associated with these products. Section 104(f) of the CPSIA defines "durable infant or toddler products" as "durable products intended for use, or that may be reasonably expected to be used, by children under the age of 5 years." The list of products in section 104(f) specifically includes stationary activity centers (SACs).

Section 104 of the CPSIA also requires the Commission to consult with representatives of consumer groups, juvenile product manufacturers, and independent child product engineers and experts to examine and assess the effectiveness of the relevant voluntary standards. CPSC staff regularly participates in the juvenile products subcommittee meetings of ASTM International (ASTM). ASTM subcommittees consist of members who represent producers, users, consumers, government, and academia.¹ The consultation process for this rulemaking commenced when staff presented their incident data during the ASTM subcommittee meeting in fall 2015. Staff

¹ ASTM International website: www.astm.org, About ASTM International.

has been actively participating in the revisions to the standard to address the hazards reported in the data.

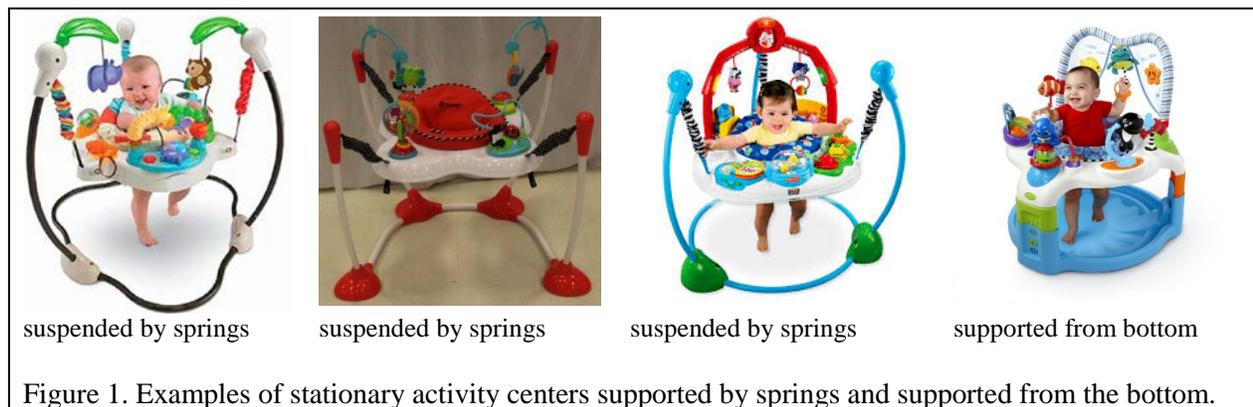
This briefing package is for products within the scope of ASTM F2012-18^{e1}, *Standard Consumer Safety Performance Specification for Stationary Activity Centers*. According to the ASTM standard, a “stationary activity center” is defined as “a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product to walk, rock, play, spin or bounce, or all of these, within a limited range of motion.”

This briefing package: (1) reviews the incident data; (2) assesses the effectiveness of the current voluntary standard for SACs (ASTM F2012-18^{e1}); (3) examines recent recalls associated with stationary activity centers; (4) discusses the impact of a rule on small businesses; and (5) provides staff’s recommendations to the Commission.

II. BACKGROUND

A. Product Review

ASTM F2012-18^{e1} §3.1.9 provides the definition of a SAC as “a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product to walk, rock, play, spin or bounce, or all of these, within a limited range of motion.” The intended users of SACs are children who have not yet reached the developmental milestone of walking. SACs vary in style and design complexity, but they typically consist of a seating area that is suspended from a frame by springs or supported from the bottom by a fixed base (see Figure 1).



B. Incident Data

CPSC staff is aware of 3,488 reported SAC-related incidents that occurred between January 1, 2013 and September 30, 2017 (see Tab A). Retailers and manufacturers submitted 92 percent (3,217 out of 3,488) of the reports through CPSC’s “Retailer Reporting Program.” Other sources, such as consumer reports submitted through CPSC’s hotline or Internet site, newspaper clippings, medical examiners, and other state/local authorities, provided the remaining incident

reports to CPSC. Reporting is ongoing, and therefore, the number of reported fatalities, nonfatal injuries, and non-injury incidents may change.

1. Fatalities

No fatalities associated with the use of SACs were reported to have occurred between January 1, 2013 and September 30, 2017.

2. Nonfatal injuries

Three hundred and four nonfatal injury incidents related to stationary activity centers were reported to CPSC that occurred between January 1, 2013 and September 30, 2017. Twenty-four of the 304 reported injuries were treated at a hospital emergency department (ED). The majority of the ED-treated incidents involved falls that resulted in head injuries, limb fractures, and contusions.

The remaining 3,184 incident reports (91 percent) specified that no injury had occurred or provided no information about an injury.

C. Hazard Patterns

CPSC staff considered all 3,488 reported incidents to identify hazard patterns associated with the use of SACs (see Tab A). The primary hazards associated with 91 percent of the incidents are categorized by frequency of reports.²

- **Spring Support Failures:** 1,617 of the 3,488 incidents (46%) reported some sort of a problem with the springs that suspend the seat from the product's frame. In most cases, the springs were reported to have broken, twisted, outstretched, or failed somehow. Twenty-seven injuries, including one ED-treated injury, were reported in this category.
- **Problems with Toy Accessories:** 1,075 of the 3,488 incidents (31%) reported problems with toy accessories attached to the product. The toys struck, pinched, entrapped limbs or extremities, lacerated with sharp edges or surfaces, posed entanglement hazards, or choking hazards. One hundred and fifty-six injuries, including two ED-treated injuries, were reported in this category.
- **Support Strap Failures:** 306 of the 3,488 incidents (9%) reported straps that tore, frayed, twisted, or detached. The strap system on a SAC is typically the primary means by which most spring-suspended activity centers are supported. Thirty injuries were reported in this category.

² The remaining categories of hazard patterns are: **seats/seat pad** issues (4 %); **stability** issues (2 %); **electrical** issues (1 %); **design** issues (1 %); **miscellaneous other** issues (less than 1 %); and **multiple problems** from all categories (less than 1 %); and **unspecified/unknown** issues (less than 1 %). A full review of the hazard patterns is discussed in Tab A.

- **Structural Integrity Problems:** 158 of the 3,488 incidents (5%) reported some problem with structural components, such as: lock failures, snap buttons failures, tube/frame/post damage, small parts detaching or screws/nuts/bolts loosening and falling out. Twelve injuries were reported in this category.

D. History of ASTM Voluntary Standard

The voluntary standard for stationary activity centers was first approved and published in April 2000, as ASTM F2012-00, *Standard Consumer Safety Performance Specification for Stationary Activity Centers*. Since then, ASTM has revised the voluntary standard ten times (see Tab B), and the current version, ASTM F2012-18^{e1}, was published May 18, 2018.

ASTM F2012-00 contained requirements to address the following:

- Latching or Locking Mechanisms
- Openings
- Scissoring, Shearing, Pinching
- Exposed Coil Springs
- Labeling
- Structural Integrity
- Occupant Retention
- Stability
- Protective Components.

ASTM F2012- 00a (approved on November 10, 2000) revision:

- updated definitions
- added performance requirements and a test related to motion resistance for open base stationary activity centers.

ASTM F2012-03 (approved on August 10, 2003) revision:

- updated definitions
- added a new metric for failure for section 5.10 Protective components
- updated warning labels.

ASTM F2012-07 (approved on February 1, 2007) revision:

- updated warning labels.

ASTM F2012-08 (approved November 1, 2008) revision:

- clarified section 7.3.4 occupant leaning over edge test method.

ASTM F2012-11 (approved on November 1, 2011) revision:

- updated requirements related to travel distance for an activity center with a central post
- defined the motion resistance test for SACs that do and don't rotate about a central post.

ASTM F2012-12 (approved on June 1, 2012) revision:

- updated warning labels requirements.

ASTM F2012-13 (approved on November 1, 2013) revision:

- updated the font size in warnings.

ASTM F2012-16 (approved on April 14, 2016) revision:

- updated Static Load test to require a 1-minute hold for 90 lb load.

ASTM F2012-18 (approved on March 1, 2018) revision:

- added requirements to address the hazard posed by spring support failures on spring-supported SACs.

ASTM F2012-18^{e1} (approved on May 18, 2018) revision:

- updated editorial changes

III. DISCUSSION

A. Adequacy of ASTM F2012-18^{e1} Requirements

ASTM developed the voluntary standard to mitigate the risk of injury by addressing the hazard patterns associated with the use of SACs. Additionally, ASTM revised on-product warnings to help inform caretakers of the primary hazards during use of the product.

Based on the engineering assessment (see Tab B) and human factors assessment (see Tab C), staff believes the requirements contained in the current voluntary standard, ASTM F2012-18^{e1}, adequately address the primary identified hazards associated with the use of SACs. These hazards are associated with 91 percent of the reported incidents and 74 percent of the reported injuries, and include issues with spring supports, toy accessories, straps, and structural integrity.

1. Spring Support Failure

This hazard is associated with 46 percent of the reported incidents and 9 percent of injuries associated with SACs. Reports of spring support failures typically involved a common type of stationary activity center in which the child and activity tray are suspended by springs from multiple points (see Figure 1). These hazards often involve the failure of one or more members of the spring support system, which causes the occupant to dynamically tilt, tip, topple, or lean from the manufacturer's recommended use position.

To address incidents related to failure of spring supports, CPSC worked with the ASTM subcommittee on stationary activity centers to add a requirement for a redundant support strap that would function as a fail-safe if a spring support failed. The redundant support strap requirement supplements the dynamic load tests requirements for spring supports by preventing the seat from falling even if a spring support fails. The new requirement was published as part of the revised voluntary standard for SACs, ASTM F2012-18^{e1}. Staff concludes that this change addresses the hazard posed by support spring failures.

2. Problems with Toy Accessories

This hazard is associated with 31 percent of the reported incidents and 51 percent of injuries associated with SACs. The majority of the incidents involved problems related to pinching, lacerations, choking/gagging and entanglement hazards posed by toy accessories. ASTM F2012-18^{e1} addresses hazards associated with toys by requiring that toy accessories meet the relevant requirements of ASTM F963-17, *Standard Consumer Safety Specification for Toy Safety*. Staff believes that the majority of the hazards related to toy accessories are adequately addressed by ASTM F963. Therefore, staff concludes that the current voluntary standard for SACs, ASTM F2012-18^{e1}, adequately addresses this hazard.

3. Support Strap Failure

This hazard is associated with 9 percent of the incidents and 10 percent of the injuries associated with SACs and includes straps that break, twist, fray, or detach. The strap system on a SAC is typically the primary means by which most spring-suspended activity centers are supported. If the strap (to which a spring support is attached) fails, the activity center is left unsupported on one side, which typically results in a fall. There are no specific requirements for support straps, although ASTM F2012-18^{e1} requires dynamic and static loading at the seat of the product to evaluate the durability of the support structures for the seat. This testing also stresses the structural integrity components of the product, which include support straps; and the standard requires that the product shows no failure of seams, breakage of materials, or changes or adjustments that could cause the product not to fully support the child. The severity of injury produced by this potential hazard is relatively low.

While preparing the briefing package, staff became aware of additional information suggesting that some support straps fray over time, resulting in SAC failures. The fraying is caused by repeated abrasion of the strap against a metal buckle. Staff determined that this scenario is not addressed by the requirements in ASTM F2012-18^{e1}. On April 27, 2018, staff sent a letter to ASTM asking ASTM to consider modifying the standard, as indicated below, and inviting comments from the public on the necessity of these requirements:

6.1 *Structural Integrity*—All tests that cover static and dynamic loading, and occupant retention, are to be performed on the same product, sequentially and without refurbishing or repositioning of adjustment, if any. At test conclusion, there shall be no **fraying, tearing, or failure of textile materials, such as seams or straps;** breakage of materials; or changes of adjustments that could cause the product to not fully support the child or create a hazardous condition as defined in Section 5. Maximum slippage of adjustable features, if any, is 1 in. (25 mm).

On May 2, 2018, the ASTM subcommittee for SACs discussed staff's letter and created a task group to address staff's concerns with fraying of support straps. Staff intends to work with ASTM on this modification, and any further changes to the voluntary standard and/or proposed regulation will be assessed before completing the final rule.

4. Structural Integrity Problems

This hazard is associated with 5 percent of the incidents and 4 percent of the injuries associated with SACs. Incidents involve failure of structural components, such as locking mechanisms,

fasteners, and frame tubing. There are no specific requirements for the structural components of a SAC, but ASTM F2012-18^{e1} requires dynamic and static loading at the seat of the product to evaluate the durability of the support structures for the seat. This testing also stresses the structural integrity components of the product, and the standard requires that the product show no failure of seams, breakage of materials, or changes of adjustments that could cause the product not to fully support the child.

Because of the relatively low frequency of incidents, as well as the low severity of injuries attributed to structural integrity hazards, staff believes that the current voluntary standard is adequate in addressing the reported problems. However, staff will continue to monitor the incidents and voluntary standard activities.

5. Warnings

Before publishing the current version of ASTM F2012-18^{e1}, typical warning labels on SACs were composed of paragraph-form messages on a black and white label. Although the labels met the voluntary standard requirements at the time for warning statements, the labels were not conspicuous or consistent in format with other juvenile product warning labels.

Several subcommittee members associated with the ASTM F15 juvenile product/durable nursery products raised concerns about inconsistency among various durable nursery product rules, and ASTM formed an Ad Hoc Wording Task Group (Ad Hoc TG) to harmonize the wording and language used across nursery product standards. CPSC staff worked closely with the Ad Hoc TG to develop recommendations that are based largely on the requirements of ANSI Z535.4, American National Standard for Product Safety Signs and Labels.

In October 2016, the Ad Hoc TG published a working document titled, “Ad Hoc Wording – October 16, 2016.” Since then, the juvenile product subcommittees have been incorporating the formatting recommendations into their standards. The latest version of the “Recommended Language Approved by Ad Hoc Task Group, Revision C” document is dated November 10, 2017, and it is published in the “Committee Documents” section of the Committee F15 ASTM website.³ In August 2017, new requirements for formatting warning labels were balloted and accepted by the F15.17 subcommittee for Stationary Activity Centers, which are reflected in F2012-18^{e1}.

The work of the Ad Hoc TG resulted in permanent, conspicuous, and consistently formatted warning labels across juvenile products. On-product warning labels that meet the requirements in ASTM F2012-18^{e1} (see Figure 2) will address numerous warning format issues related to capturing consumer attention, improving readability, and increasing hazard perception and avoidance behavior. CPSC’s Human Factors staff concludes that the warnings adequately inform consumers of the fall and strangulation hazards, the consequences of those hazards, and instructions on how to reduce the risks of injury and death due to falls and strangulation.

³ See https://myastm.astm.org/KEY_DOCUMENTS/PDF_FILES/f150000adhoc5.pdf. This link is accessible to Committee F15 members only.

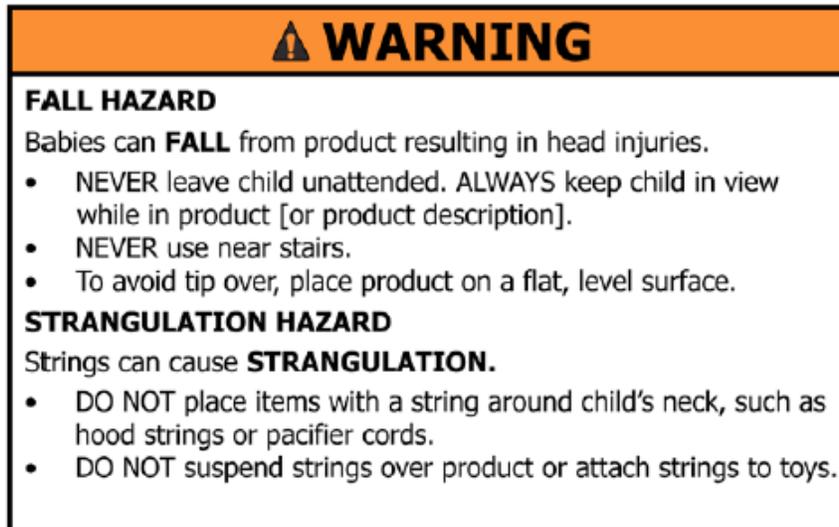


FIG. 10 Example of Warnings

Figure 2. Sample stationary activity center warning

B. Compliance Recalls

CPSC staff reviewed recalls on stationary activity centers that occurred from January 2013 to March 2018 (see Tab D). During that period, one consumer-level recall occurred involving a Kids II, Inc., stationary activity center.⁴ The recall involved 400,000 units and was conducted to resolve an impact hazard posed by a toy accessory on the support seat that could rebound with enough force to cause bruises and lacerations.

C. Assessment of Small Business Impact of the Draft Proposed Rule

CPSC staff identified 11 firms supplying SACs to the U.S. market (see Tab E). These firms primarily specialize in manufacturing and/or distributing children's products. Based on U.S. Small Business Administration (SBA) guidelines, seven of the 11 firms are small businesses. Of these seven small domestic manufacturers, three produce spring-supported SACs. Staff did not identify any SAC importers that would constitute small businesses under the SBA guidelines.

Incorporating by reference ASTM F2012-18⁶¹, *Standard Consumer Safety Performance Specification for Stationary Activity Centers*, and making it a mandatory product safety rule under the Consumer Product Safety Act (CPSA) is unlikely to have a significant impact on a substantial number of small entities. All seven small manufacturers of stationary activity centers are Juvenile Products Manufacturers Association (JPMA) certified, so they meet the specifications of ASTM F2012-16 and are already conducting some third party testing for products. There are three small domestic manufacturers of SACs. Of the three small domestic

⁴ CPSC website link to recalled product: <https://www.cpsc.gov/Recalls/2013/Kids-II-Recalls-Baby-Einstein-Activity-Jumpers/>

manufacturers, staff confirmed that two already have an integrated redundant strap. If the third manufacturer is currently noncompliant, the cost of bringing its products into compliance would be less than 50 cents per unit, which is less than 1 percent of its expected revenue. In addition, the incremental cost of third party testing due to the additional performance requirement is unlikely to be significant for any of the three small manufacturers of spring-supported SACs. The Commission could certify that this rule will not have a significant impact on a substantial number of small entities. We note that this analysis did not consider the potential impact of modifying the voluntary standard or draft rule to address the recently identified hazard associated with the support strap fraying issue. Should the standard be modified later to address this hazard, the staff will consider the impact of the modification at that time.

D. Notice of Requirements

Section 14(a) of the CPSA requires that any children's product subject to a consumer product safety rule under the CPSA must be certified as complying with all applicable CPSC-enforced requirements. The children's product certification must be based on testing conducted by a CPSC-accepted third party conformity assessment body (test laboratory). The CPSA requires the Commission to publish a notice of requirements (NOR) for the accreditation of third party test laboratories to determine compliance with a children's product safety rule to which a children's product is subject. A proposed rule for stationary activity centers, if issued as a final rule, would be a children's product safety rule that requires the issuance of an NOR.

The Commission published a final rule, Requirements Pertaining to Third Party Conformity Assessment Bodies. 16 CFR part 1112 (78 Fed. Reg. 15836 (March 12, 2013)) (referred to here as part 1112). This rule took effect on June 10, 2013. Part 1112 establishes the requirements for accreditation of third party testing laboratories to test for compliance with a children's product safety rule. The final rule also codifies all of the NORs that the CPSC has published to date for children's product safety rules. All new children's product safety rules, such as the proposed stationary activity center standard, would require an amendment to Part 1112 to create an NOR. Therefore, staff recommends that the Commission propose to amend Part 1112 to include stationary activity centers in the list of children's product safety rules for which the CPSC has issued NORs.

IV. EFFECTIVE DATE

The Administrative Procedure Act (APA) generally requires that the effective date of a rule be at least 30 days after publication of the final rule (5 U.S.C 553(d)). Staff recommends a 6-month effective date. Barring evidence to the contrary, 6 months is generally considered sufficient time for suppliers to come into compliance with a new standard, and this amount of time is typical for other CPSIA section 104 rules. Six months is also the period that the Juvenile Products Manufacturers Association (JPMA) typically allows for products in their certification program to shift to a new standard once that new standard is published. Therefore, juvenile product manufacturers are accustomed to adjusting to new standards within this time.

V. STAFF CONCLUSION AND RECOMMENDATION

While CPSC staff continues to work with ASTM to address frayed straps hazards, staff recommends that the Commission issue a proposed rule for SACs that incorporates by reference ASTM F2012-18^{e1}, *Standard Consumer Safety Performance Specification for Stationary Activity Centers*. Staff also recommends an effective date of 6 months after publication of the final rule to allow time for SAC manufacturers to bring their products into compliance and to arrange for third party testing.

**TAB A: Stationary Activity Center-Related Deaths,
Injuries, and Potential Injuries; January 1, 2013-
September 30, 2017**

**T
A
B
A**



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

Date: November 7, 2017

TO : Kevin Lee
Stationary Activity Centers Project Manager
Division of Mechanical Engineering
Directorate for Engineering Sciences

THROUGH: Stephen Hanway
Division Director, Division of Hazard Analysis
Directorate for Epidemiology

FROM : Risana Chowdhury
Division of Hazard Analysis
Directorate for Epidemiology

SUBJECT : Stationary Activity Center-Related Deaths, Injuries, and Potential Injuries;
January 1, 2013–September 30, 2017⁵

I. Introduction

This memorandum characterizes the number of deaths and injuries and the types of hazards related to children's stationary activity centers (SACs) over a period of nearly 5 years from January 2013 to September 2017.⁶ These characterizations are based on incident reports received by CPSC staff. The number of emergency department-treated injuries associated with SACs, for the period covered, was insufficient to derive any reportable national estimates.⁷ Hence, injury estimates are not presented in this memorandum. However, the emergency department-treated injuries are included in the total count of reported incidents presented here.

ASTM F2012, *Standard Consumer Safety Specification for Stationary Activity Centers*, addresses safety issues related to SACs. According to the ASTM standard, a SAC is:
a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product

⁵ This analysis was prepared by CPSC staff. It has not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

⁶ Not all of these incidents are addressable by an action the CPSC could take. It is not the purpose of this memorandum, however, to evaluate the addressability of the incidents, but rather, to quantify the number of fatalities and injuries reported to CPSC staff and to provide, when feasible, estimates of emergency department-treated injuries.

⁷ According to the NEISS publication criteria, an estimate must be 1,200 or greater, the sample size must be 20 or greater, and the coefficient of variation must be 33 percent or smaller.

to walk, rock, play, spin or bounce, or all of these, within a limited range of motion.

These products are also commonly known as baby exercisers. Under the ASTM standard, at a minimum, a child should be able to hold his head up unassisted to begin using the product. When the child begins to walk unassisted, the standard recommends discontinuing use of the product. Based on these recommendations, the victim age in the data selected was limited to 4-23 months.⁸

ASTM F2012-16 is the current voluntary standard on stationary activity centers; ASTM published the first standard in 2000, and developed the standard based primarily on incident data provided by CPSC staff. Given the large volume of data related to this product, CPSC staff determined that reviewing the data of the last 5 years would suffice. Thus, this memorandum discusses data over the period January 1, 2013 through September 30, 2017.

II. Incident Data⁹

CPSC staff is aware of a total of 3,488 reported incidents related to SACs that reportedly occurred between January 1, 2013 and September 30, 2017. Information on 92 percent (3,217 out of 3,488) of the incidents was based solely on reports submitted to CPSC by manufacturers and retailers through CPSC's "Retailer Reporting Program." Because reporting is ongoing, the number of reported incidents may change. Table 1 shows the number of incidents that occurred each year. Given that these reports are anecdotal and that reporting is incomplete, CPSC staff strongly discourages drawing inferences based on the year-to-year increase or decrease shown in the reported data.

⁸ CPSC staff considered 23 months as the upper limit to accommodate for children who may be developmentally delayed.

⁹ Staff searched databases for the Consumer Product Safety Risk Management System (CPSRMS) and the National Electronic Injury Surveillance System (NEISS). These reported incidents do not provide a complete count of all that occurred during this period. However, they do provide a minimum number of deaths and incidents occurring during this period and illustrate the circumstances involved in the incidents related to stationary activity centers.

Date of extraction for reported incident data was 10/18/17. All data coded under product codes 1520 (*Baby Exercisers*) and 1508 (*Baby Walkers or Jumpers*) were extracted. From among the data coded under 1508, incidents related to baby walkers and doorway jumpers were excluded. Upon careful joint review with CPSC's Directorates for Engineering Sciences and Health Sciences, many cases were considered out-of-scope for the purposes of this memorandum. For example, report of an adult tripping over a stationary activity center and damaging the product, or a report of an older sibling pushing over the stationary activity center with the child in it, was excluded. Except for incidents occurring on U.S. military bases, all incidents that occurred outside the United States have been excluded. To prevent any double-counting, when multiple reports of the same incident were identified, they were consolidated and counted as one incident.

Table 1: Stationary Activity Center-Related Incidents Reported 01/01/13 through 09/30/17

<i>Incident Year</i>	<i>Total Number of Reported Incidents</i>	<i>Number of Reported Injuries</i>
2013	1,051	93
2014	1,060	97
2015*	633	51
2016*	609	40
Through 9/30/17*	135	23
Total	3,488	304

Source: CPSC epidemiological databases CPSRMS and NEISS.

Note: * indicates data collection is ongoing

Table 2 provides the age breakdown of the injured for the combined data of 3,488 incident reports.

Table 2: Age Distribution in Stationary Activity Center-Related Incident Reports 01/01/13–09/30/17

<i>Age of Child</i>	<i>Total Reported Incidents</i>		<i>Reported Injuries</i>	
	<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>
Unreported*	542	16	38	13
Less Than 6 months	444	13	62	20
6 – 11 months	2,205	63	181	60
12 – 17 months	262	8	19	6
18 – 23 months	35	1	4	1
Total	3,488	100	304	100

Source: CPSC epidemiological databases CPSRMS and NEISS.

*Age may be “unreported” under two circumstances: age was unknown or age was not reported because the incident involved no injury.

Percentages do not always add to 100 due to rounding.

A. Fatalities

No fatalities associated with the use of SACs were reported to have occurred between January 1, 2013 and September 30, 2017.

B. Nonfatal Injuries

CPSC staff is aware of a total of 304 nonfatal injury incidents related to SACs that reportedly occurred between January 1, 2013 and September 30, 2017.

Twenty-four children were reported to have been treated and released from a hospital emergency department (ED). A majority of them suffered a fall, resulting in head injuries, limb fractures, and contusions. A few children who treated in hospital EDs suffered unexplained foot/leg/pelvic bruising, fractures, and/or swelling while jumping in the product. One child had an allergic reaction to the product finish or material; while two other children suffered from limb entrapments when using the product.

Among the remaining 280 injury reports, some specifically mentioned the type of injury, while others only mentioned an injury, but provided no specifics about the injury. Fractures, head

injuries, concussions, teeth injury, abrasions, contusions, and lacerations were some of the commonly reported injuries.

The remaining 3,184 incidents reported that no injury had occurred or provided no information about any injury. However, many of the descriptions indicated the potential for a serious injury.

III. Hazard Patterns

CPSC staff considered all 3,488 reported incidents to identify hazard patterns associated with the use of stationary activity centers. Most of the reported problems were product-related. In order of descending frequency, the problems were as follows:

- ***Spring support*** issues: One thousand, six hundred seventeen of the 3,488 incidents (46 percent) reported some sort of a problem with the springs that suspend the seat from the product's frame. In most cases, the springs were reported to have broken, twisted, outstretched, or failed in some other manner. Twenty-seven injuries, including one ED-treated injury, were reported in this category.
- Problems with ***toy accessories***: One thousand seventy-five of the 3,488 incidents (31 percent) reported problems with toy accessories attached to the product. The problems were with toys
 - forcefully striking the child, usually on the face
 - pinching or entrapping limbs or extremities
 - posing a laceration hazard due to sharp edges or surfaces
 - causing gagging when being mouthed
 - posing an entanglement hazard because of the long ribbons/strings attached
 - posing a choking hazard due to small parts detaching.One hundred fifty-six injuries, including two ED-treated injuries, were reported in this category.
- ***Support strap*** issues: Three hundred six of the 3,488 incidents (9 percent) reported straps that tore, frayed, twisted, or detached. The strap system on a SAC is typically the primary means by which most spring-suspended activity centers are supported. If the strap (to which a support spring is attached) fails, the activity center is often left unsupported on one side and typically results in a child falling. Thirty injuries were reported in this category.
- ***Structural integrity*** problems: One hundred fifty-eight of the 3,488 incidents (5 percent) reported some problem with structural components, such as:
 - locks, which led to product collapse, detachment of the top and bottom parts of the exerciser, or failure of the height adjustment mechanism
 - snap buttons/fasteners breaking during regular use, delivery, or assembly/disassembly
 - tube/frame/post separating, bending, or getting damaged in some other manner
 - various small parts (often unspecified) detaching
 - screws/nuts/bolts loosening and falling out.Twelve injuries were reported in this category.

- Problems with *seats/seat pads*: One hundred twenty-two of the 3,488 incidents (4 percent) reported problems specific to the seat or the seat pad. Examples include:
 - tabs, used to attach the pad to the seat frame, breaking, tearing, or separating
 - the stitching on the pad fraying or tearing
 - the leg openings designed to be inadequately constrictive
 - rough material used for the pad.
 Twelve injuries were reported in this category.

- **Stability** issues: Seventy-six of the 3,488 incidents (2 percent) reported problems with flimsy and/or unstable products. Specifically, the incidents described:
 - frame/posts/seat/unit leaning to one side and not sitting level
 - legs lifting up during use
 - the product toppling over.
 Four children were reported injured in these incidents.

- **Electrical** problems: Thirty-six of the 3,488 incidents (1 percent) reported leakage and/or corrosion in the batteries or failure of the circuit board on the product. Two injuries were reported in this category.

- **Design** issues: Thirty-two of the 3,488 incidents (1 percent) reported some problems with the design of the product. There were reports of:
 - limb/extremity entrapment between parts of the exerciser
 - failure of the seat to contain the child within
 - poor choice for the placement of structural components that made it easier for a child to get hurt during routine use.
 There were 20 injuries, including two treated in a hospital ED, in this category.

- **Miscellaneous other** issues: Twenty-two of the 3,488 incidents (less than 1 percent) reported a variety of other general product-related issues, such as:
 - rough surface, sharp edges, or protrusions
 - paint/finish
 - product packaging
 - fall of product from an elevated surface
 - sales of recalled or modified products at a consignment store or a garage sale.
 Thirteen injuries, including four treated at hospital EDs, were reported in this category.

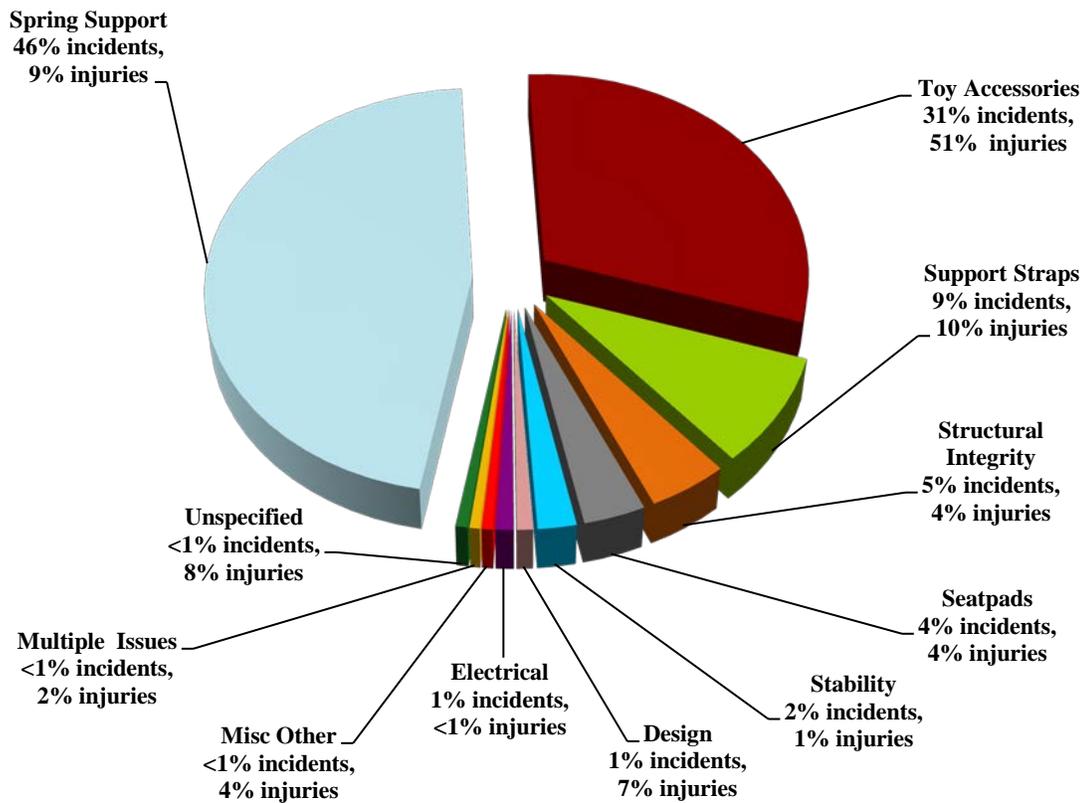
- **Multiple problems** from among the above-listed categories: Twenty of the 3,488 incidents (less than 1 percent) reported two or more problems from the preceding product-related issues.¹⁰ CPSC staff could not determine if there was any priority (*e.g.*, primary, secondary) among the order in which issues were reported. Five injuries were reported in this category.

¹⁰ Redistributing these 20 complaints amongst AMONG the other pertinent categories already listed does not alter the ranking of the listed categories. However, the redistribution would result in the incident numbers adding up to *more* than the total number of reported incidents. To prevent that, the 20 incidents were grouped in this category separately.

- Unspecified/Unknown** issues: Twenty-four of the 3,488 incident reports (less than 1 percent) provided incomplete or unclear descriptions of the scenario; as such, CPSC staff was unable to identify the problem. Twenty-three injuries, mostly falls, were reported in this category; 15 of these injuries were treated in a hospital ED.

The distribution of the 3,488 incident reports by the hazard patterns described above are shown in Figure 1.

Figure 1: Distribution of Stationary Activity Centers-Related Incidents and Injuries by Hazard Pattern Characterizations 01/01/13-09/30/17



Source: CPSC epidemiological database CPRMS and NEISS.
 Note: Percentages do not always add to 100 due to rounding.

TAB B: Staff's Review and Evaluation of the Effectiveness of ASTM F2012-18^{ε1}, *Standard Consumer Safety Specification for Stationary Activity Centers*, in Addressing Emerging Hazards

**T
A
B
B**



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

Date: June 4, 2018

TO: Kevin Lee, Mechanical Engineer
Stationary Activity Centers Project Manager

THROUGH: Andrew Stadnik, P.E.
Assistant Executive Director
Directorate for Laboratory Sciences
Office of Hazard Identification and Reduction

Michael Nelson, Director
Division of Mechanical Engineering
Directorate for Laboratory Sciences

FROM: Brian Baker, Mechanical Engineer/Physical Scientist
Division of Mechanical Engineering
Directorate for Laboratory Sciences

SUBJECT: Staff's Review and Evaluation of the Effectiveness of ASTM F2012-18^{e1},
Standard Consumer Safety Specification for Stationary Activity Centers, in
Addressing Emerging Hazards.

I. INTRODUCTION

This memorandum assesses the effectiveness of ASTM F2012-18^{e1}, *Standard Consumer Safety Specification for Stationary Activity Centers* (the current ASTM voluntary standard), and outlines staff's recommendation to incorporate by reference the standard into the proposed mandatory rule for stationary activity centers, in accordance with section 104 of the CPSIA.

ASTM F2012-18^{e1} defines a "stationary activity center" as "*a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product to, walk, rock, play, spin or bounce, or all of these, within a limited range of motion.*" The products depicted in Figure 1a & b both qualify as typical stationary activity centers, the difference being their means of support. Figure 1a shows a stationary activity center supported from the bottom whereas the product in Figure 1b is supported, by means of springs, from the top.



Figure 1a



Figure 1b

Figure 1a & 1b: Examples of a stationary activity center - supported from the bottom (1a) and by springs (1b).

History of ASTM F2012

The voluntary standard for stationary activity centers was first approved and published in April 2000, as ASTM F2012-00, *Standard Consumer Safety Specification for Stationary Activity Centers*. The standard has been revised ten times since its publication. The current version, ASTM F2012-18^{e1}, was approved on May 18, 2018.

[ASTM F2012-00 \(approved on April 10, 2000\)](#) established performance requirements to address the following:

- Latching or Locking Mechanisms - for stationary activity centers that fold for storage, this requirement helps prevent unintentional folding during use.
- Openings – Assesses the accessibility of slots or cracks in the unit to ensure that the occupant’s extremities (fingers, toes) cannot be caught or trapped while not in motion.
- Scissoring, Shearing, Pinching –Assesses the aforementioned accessible slots in order to prevent injury from moving parts, throughout the range of movement.
- Exposed Coil Springs – Sets a requirement for the spacing between the coils of any accessible spring element in order to prevent entrapment.
- Labeling – Assesses the permanency of labeling as well as, their removal, which may involve creating small parts.
- Structural Integrity – Includes dynamic and static loading, to determine any collapsing or failure modes that may occur during the lifecycle of the unit.
- Occupant Retention – Evaluates the leg openings of the activity center in order to prevent entrapment of the torso, neck, or head.
- Stability – Assesses the stability of the scenario having a seated occupant, lean outside of the unit.
- Protective Components – Determines if a child can grasp/bite and remove, protective caps, shields, sleeves, plugs. If so, determine if a hazard exists (*i.e.*, small parts, sharp edges, sharp points or entrapments).

[ASTM F2012-00a \(approved on November 10, 2000\)](#) added requirements for an open base stationary activity center:

- Section 3.1.5 Open Base Stationary Activity Center, n – a stationary activity center that allows the occupant’s feet to contact the floor.
- Section 6.5 Motion Resistance for Open Base Stationary Activity Center—The open base stationary activity center shall not move more than 1.0 in. (24.4 mm) in the direction of the applied force from its original position when tested in accordance with 7.6.
- Section 7.6 Motion Resistance Test: Established a test to determine the translational motion resistance capability of the activity center. The CAMI Infant Dummy Mark II is placed in the highest position available and dragged, by the foot, using 8lbf. Unit cannot move more than 1.0 as determined by new section 6.5.

[ASTM F2012-03 \(approved on November 10, 2000\)](#) added:

- Section 3.1.1 Conspicuous, adj. – a label that is visible when the activity center is in a manufacturers recommended use position, to a person standing near the activity center at any one position around the activity center but not necessarily visible from all positions.

- Section 5.5 Openings – Section now includes a specific size (diameter and depth), and wall thickness for holes or slots and now must also be bounded by another rigid surface. Openings within these bounds are deemed “permissible” while in the manufacturer’s recommended use position.
- Section 5.10 Protective Components – New section that gives a metric for failure if a child can grasp a protective component between their forefinger and thumb, or teeth to remove it.
- Section 8 Marking and Labeling – Established the criteria to identify the product by name, place of business, date of manufacture, as well as warning statements on labels.

[ASTM F2012-07 \(approved on February 1, 2007\)](#) added:

- Section 8.3.2.5 New mandatory warning label requirement must be present regarding string strangulation hazards.

[ASTM F2012-08 \(approved on November 1, 2008\)](#) added:

- Section 7.3.4 Occupant Leaning Over Edge Test Method – Added a line describing that the 17lbm CAMI dummy in the side configuration should not allow the unit to tip over.

[ASTM F2012-11 \(approved on November 1, 2011\)](#) added:

- Section 6.5.2 Stationary Activity Center that Rotates Around Central-Stationary Post – Defines the amount of travel distance for an activity center with a central post when tested in accordance with 7.6.2.
- Section 7.6.1 Stationary Activity Centers that Does Not Rotate Around a Central Stationary Post – Defines the Motion Resistance Test requirements for activity centers that do not rotate about a central post.
- Section 7.6.2 Stationary Activity Centers that Rotate Around a Central Stationary Post – Defines the Motion Resistance Test Requirements for activity centers that DO rotate about a central post.

[ASTM F2012-12 \(approved on June 1, 2012\)](#) added:

- Section 9.2 – Warning Statements with the Instructional Literature. Additional warning statements now required within the instructional literature.

[ASTM F2012-13 \(approved on November 1, 2013\)](#) added:

- Section 7.6 –Motion Resistance Test for Open Base Stationary Activity Centers – This section was relabeled (from Motion Resistance Test) in order to match the associated definition for Open Base Stationary Activity Centers.
- Section 9.2 – Warning Statements with the Instructional Literature. Additional warning requirements for the font size within the instructional literature.

ASTM F2012-16 (approved on April 15, 2016) added:

- Section 7.1.2 Static Load – Static Load testing now requires a 1 minute wait period to hold 90 lbs.

ASTM F2012-18 (approved on March 1, 2018) added:

- Section 3.1.1 - Closed Base Stationary Activity Center, n – a stationary activity center that does not allow the occupant’s feet to contact the floor when the product is in any manufacturer’s recommended use position.
- Section 3.1.10 - Spring Supported Stationary Activity Center, n – a stationary activity center in which the sitting or standing platform is supported from below or suspended from above by springs (or equivalent resilient members).
- Section 5.11 - Spring Supported Stationary Activity Center – New section that requires spring supported stationary activity centers to have a redundant system in place, to prevent the seat from falling should any spring component fail. Upon failure, the redundant system must keep the child in place at a rest angle no more than 25° from horizontal.

ASTM F2012-18^{e1} (approved on March 1, 2018) made the following corrections:

- Section 3.1.11 – static load, n – ~~a~~ vertically downward force applied by weights or other means.
- Section 5.12 – Product must comply with the applicable requirements of the Consumer Product Safety Improvement Act (~~CPSIA~~).
- Figure 10 Example of Warnings– Removal of exclamation points from within the warning label subtitle text and associated testing sections
 - Old labeling

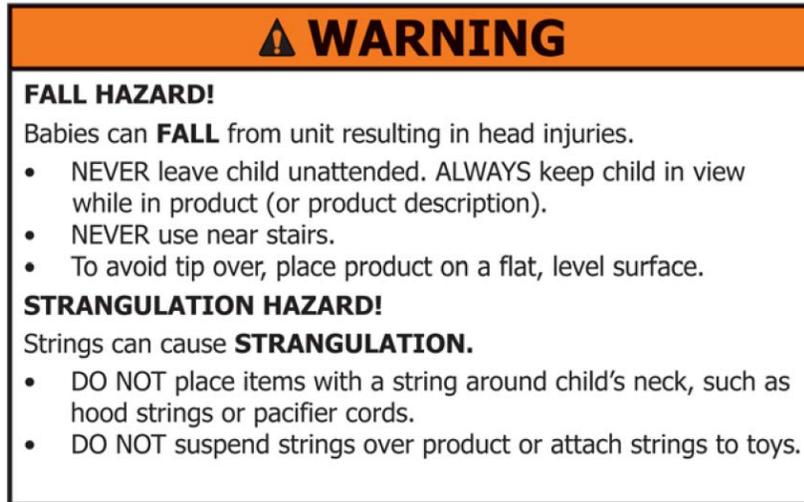


FIG. 10 Example of Warnings

- Corrected labeling

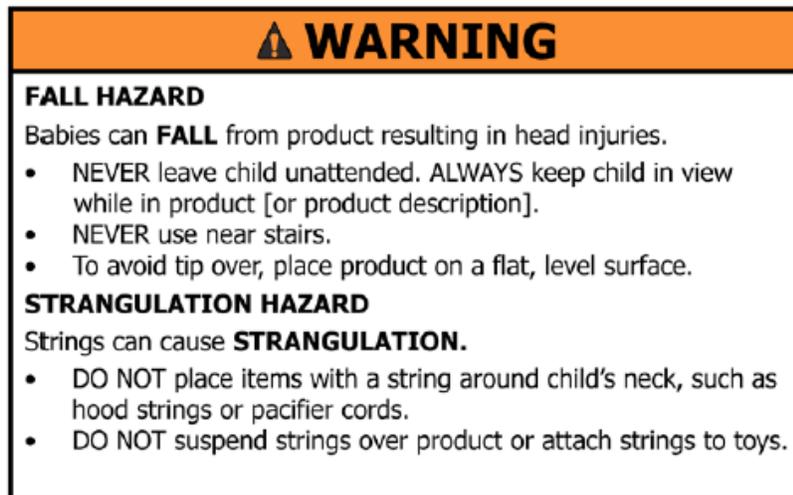


FIG. 10 Example of Warnings

- Corrected Section titles now read
 - Section 8.5.1.1 – **FALL HAZARD!**
 - Section 8.5.1.2 **STRANGULATION HAZARD!**

II. ADEQUACY OF ASTM F2012-18^{e1} REQUIREMENTS

CPSC's Directorate for Laboratory Sciences' Division of Mechanical Engineering (LSM) staff concludes that the current voluntary standard, ASTM F2012-18^{e1}, sufficiently addresses many of the general hazards associated with the use of stationary activity centers, such as sharp points, small parts, lead in paint, scissoring, shearing, pinching, openings, exposed coil springs, locking and latching, unintentional folding, labeling, protective components, flammability, and toy accessories that are sold with the carrier, given the low frequency and low severity of incidents and injuries reported.

This section discusses the four primary hazard patterns that account for the majority of the reported incidents and injuries; Spring Support - 46 percent, Toy Accessories - 31 percent, Straps - 9 percent; Structural integrity - 5 percent, and how each is addressed in the current voluntary standard, ASTM F2012-18^{e1}.¹¹

Hazard Pattern 1 - Spring Support Issues

This hazard is associated with 46 percent of the reported incidents (9 percent of injuries). Reports of support spring failures typically involved a common type of SAC in which the child and activity tray are suspended by springs from multiple points (see Figure 1b). These hazards often involve the failure of one or more members of the spring system, which causes the occupant to dynamically tilt, tip, topple, or lean from the manufacturer's recommended use position, which can result in the occupant falling out of the activity center. The 2018 version of the voluntary standard (ASTM F2012-18^{e1}) addressed spring failures with a performance requirement that support springs withstand 100 drops from a 33-lb. weight from a height of at least 1 inch. CPSC staff presented the incident data to the voluntary standards committee and suggested a secondary support for load-bearing springs. This resulted in ASTM F2012-18^{e1} also requiring a redundant system to prevent the seat from falling should the spring fail. Because this support strap would function as a fail-safe if springs break, including springs not identified during the dynamic load and life-cycle tests, staff concludes that this change will address the hazard pattern identified.

Hazard Pattern 2 – Problems with Toy Accessories

This hazard pattern is associated with 31 percent of the reported incidents and 51 percent of the injuries. The majority of the incidents involved pinching, laceration, choking/gagging, and entanglement injuries. ASTM F2012-18^{e1} addresses hazards associated with toys by requiring that toy accessories meet the relevant requirements of ASTM F963-17, *Standard Consumer Safety Specification for Toy Safety*. Staff believes that the majority of the hazards related to toy accessories are adequately addressed by ASTM F963. Therefore, staff believes the current voluntary standard for stationary activity centers, ASTM F2012-18^{e1}, adequately addresses this hazard.

¹¹ Chowdhury, Risana, "Stationary Activity Centers-Related Deaths, Injuries, and Potential Injuries; January 1, 2013 – September 30, 2017" November 2, 2017

Hazard Pattern 3 – Occupant Support Strap Issues

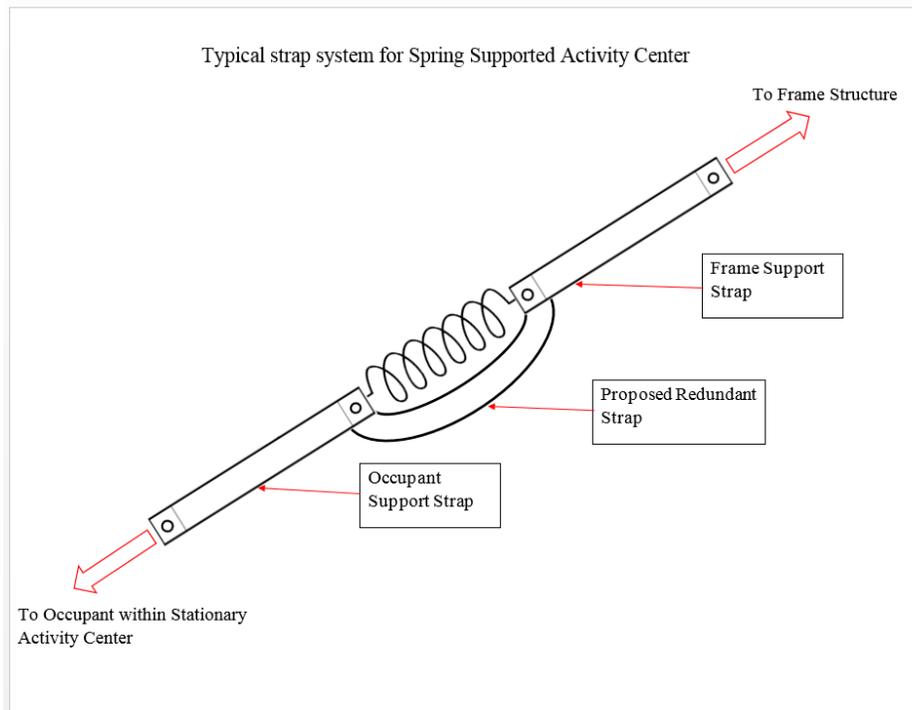


Figure 2: Typical strap system for spring-supported activity centers; System is used multiple times on one product, to support occupant’s weight, and allows occupant to bounce.

This hazard pattern is associated with 9 percent of the reported incidents and 10 percent of the injuries and includes straps that break, fray, twist, or detach. The strap system on a stationary activity center is typically the primary means by which most spring-suspended activity centers are supported. Upon failure of the occupant support strap the activity center is often left unsupported on one side and typically results in the child falling. ASTM F2012-18^{e1} requires dynamic and static loading at the seat of the product to evaluate the durability of the support structures for the seat. This testing also stresses the structural integrity components of the product, such as straps; and the standard requires that the product show no seam failure, material breakage, or changes of adjustments that could cause the product not to fully support the child.

While writing this memo, staff learned of an additional failure mode of the occupant support strap. The additional information suggested that some occupant support strap failures have resulted from abrasions of a strap against a metal buckle during normal use. Staff determined that this scenario is not addressed by the requirements in ASTM F2012-18^{e1}. On April 27, 2018, staff sent a letter to ASTM asking ASTM to consider the modifications detailed below, and inviting public comments.

6.1 *Structural Integrity*—All tests that cover static and dynamic loading, and occupant retention, are to be performed on the same product, sequentially and without refurbishing or repositioning of adjustment, if any. At test conclusion, there shall be no **fraying, tearing, or failure of textile materials, such as seams or straps**; breakage of materials; or changes of adjustments that could cause the product to not fully support the child or create a hazardous condition as defined in Section 5. Maximum slippage of adjustable features, if any, is 1 in. (25 mm).

On May 2, 2018, the ASTM subcommittee for SAC's discussed staff's letter and created a task group to address multiple concerns with the fraying of support straps. Staff intends to work with ASTM on this modification, and any further changes to the voluntary standard and/or proposed regulation will be assessed before completing the final rule.

Hazard Pattern 4 - Structural Integrity

This hazard pattern is associated with 5 percent of the reported incidents and 4 percent of the injuries. Incidents involve failure of structural components, such as locking mechanisms, fasteners, and frame tubing. ASTM F2012-18^{e1} requires dynamic and static loading at the seat of the product to evaluate the durability of the support structures for the seat. This testing also stresses the structural integrity components of the product, and the standard requires that the product show no seam failures, material breakage, or changes of adjustments that could cause the product not to fully support the child.

Because of the relatively low percentage, as well as the minor injury severity produced by this potential hazard, staff believes that the current voluntary standard adequately addresses the structural integrity of SACs.

III. OTHER STANDARDS

LSM staff found no comparable international standard that addresses stationary activity centers similar to ASTM F2012-18^{e1}.

IV. RECOMMENDATIONS

LSM staff recommends that the Commission propose to incorporate by reference ASTM F2012-18^{e1} as the mandatory safety standard for stationary activity centers while staff continues to work with ASTM on the frayed strap issue.

**TAB C: Human Factors Assessment of ASTM F2012-18^{ε1}
Requirements for Stationary Activity Centers (CPSIA
Section 104)**

**T
A
B
C**



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MARYLAND 20814

Memorandum

DATE: May 4, 2018

TO: Kevin Lee, Project Manager, Stationary Activity Center Rulemaking,
Division of Mechanical Engineering, Directorate for Engineering Sciences

THROUGH: Joel Recht, Associate Executive Director
Directorate for Engineering Sciences

Rana Balci-Sinha, Ph.D., Division Director
Division of Human Factors
Directorate for Engineering Sciences

FROM: Celestine T. Kish, Senior Engineering Psychologist
Division of Human Factors, Directorate for Engineering Sciences

SUBJECT: Human Factors Assessment of ASTM F2012-18^{e1} Requirements for Stationary
Activity Centers(CPSIA Section 104)

BACKGROUND

The voluntary standard ASTM F2012, *Standard Consumer Safety Specification for Stationary Activity Centers*, establishes requirements for stationary activity centers (SACs) for infants, and is intended to minimize the hazards associated with the reasonably foreseeable use and misuse, or abuse, of these products. ASTM developed this voluntary standard in response to incident data supplied by staff of the U.S. Consumer Product Safety Commission (CPSC). The current published version of the voluntary standard is ASTM F2012-18^{e1}.

Section 8 of the voluntary standard specifies marking and labeling requirements, which include warning statements that must appear on each SAC. Section 9 specifies the instructional literature that must be provided with each stationary activity center. This memorandum, prepared by staff of CPSC's Directorate for Engineering Sciences, Division of Human Factors (ESHF), assesses the adequacy of these sections of the voluntary standard in addressing the risk of injuries and deaths associated with the use of SACs.

DISCUSSION

PRODUCT

According to the voluntary standard, a stationary activity center is “a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product to walk, rock, play, spin or bounce, or all of these, within a limited range of motion.” Stationary activity centers encompass a wide range of products. They can be a fixed-based, spring-suspended, or multi-modality product. The voluntary standard is intended to mitigate the risk of injury or death related to the following hazards: insufficient seat strength to support the occupant, product tip over, openings for finger entrapment and small parts as outlined in the introduction to the standard.

Typically, a SAC is used during the first 18 months of life, during which the motor milestones progress quickly. The average age for infants to hold their head steady is 2.5-months-old (starting as early as 1-month-old), and the average age for sitting with slight support is 3.8-months-old (2- to 6-month-old range). The average age for walking alone is 11.7-months-old (ranging from 9-17 months-old). During the age range of gaining head control to beyond when a child can walk, a caretaker may use a SAC to support and entertain a child, although it is recommended to discontinue using the product when the child begins to walk unassisted.

ESHF STAFF REVIEW OF INCIDENT DATA

The hazard patterns outlined by CPSC’s Directorate for Epidemiology (EPI) are related to the following categories: springs, toy accessories, structural integrity, strap, seat/seat pads, stability, electrical, design, miscellaneous, multiple problems, and unspecified/unknown. A majority of the incidents were categorized as being related to the spring, followed by the toy accessories. The majority of incidents occurred in the age range of 6-11 months old. No fatalities were reported from January 2013 through September 30, 2017.

The voluntary standard was created to mitigate the risk of injury and fatalities by addressing the hazard patterns. Additionally, the on-product warnings were carefully devised to help inform caretakers of the primary hazards to be addressed during use of the product. The instructions included with SACs “must include developmental criteria to begin using the product when the child can hold his head up unassisted at a minimum (or a later developmental level if deemed appropriate by the manufacturer) and when to discontinue using the product as a stationary activity center such as when the child begins to walk unassisted.”

CURRENT ASTM WARNING AND INSTRUCTIONAL REQUIREMENTS

Before the current F2012-18^{e1} Section 8 marking and labeling requirements for stationary activity centers, typical warning labels were composed of paragraph-form messages on a black and white label (see Figure 3).

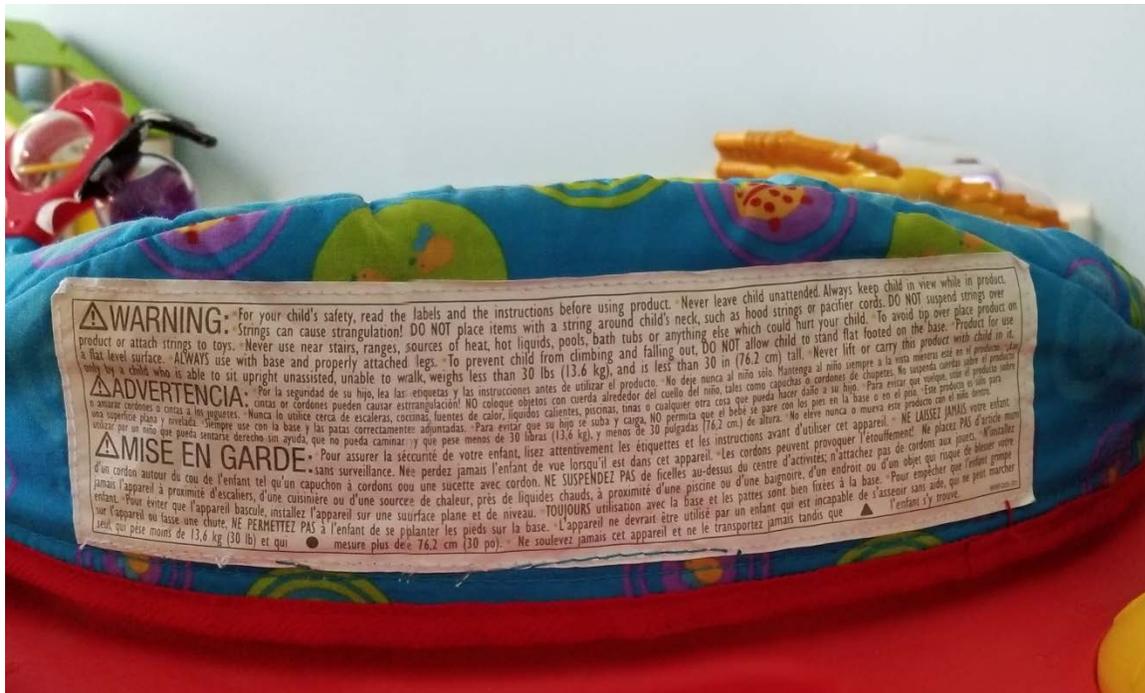


Figure 3: Stationary Activity Center sample warning.

As CPSC implemented CPSIA section 104, promulgating mandatory standards for durable infant or toddler products, several of the subcommittee members associated with the ASTM F15 juvenile product/durable nursery products raised concerns about inconsistency among various durable nursery product rules. Therefore, ASTM formed Ad Hoc Wording Task Group (Ad Hoc TG) to harmonize the wording and language used across nursery product standards. The Ad Hoc TG consists of members of the various voluntary standards subcommittees affected by the durable nursery products rules. This Ad Hoc TG also made recommendations for harmonizing warning formats across standards. CPSC staff worked closely with the Ad Hoc TG to develop recommendations that are based largely on the requirements of the ANSI Z535.4, American National Standard for Product Safety Signs and Labels.

In October 2016, the Ad Hoc TG published a working document titled, “Ad Hoc Wording – October 16, 2016.” Since then, the juvenile product subcommittees have been incorporating the formatting recommendations into their standards. The latest version of the “Recommended Language Approved by Ad Hoc Task Group, Revision C” document is dated November 10, 2017, and is published in the “Committee Documents” section of the F15 ASTM website.¹² In August 2017, new warning format requirements were balloted and accepted by the F15.17 subcommittee for SACs; the recommendations are reflected in F2012-18^{e1}. The work of the Ad Hoc TG’s efforts resulted in permanent, conspicuous, and consistently formatted on-product warning labels across juvenile products. On-product warning labels that meet the requirements in the F2012-18^{e1} (see Figure 4) will address numerous warning format issues related to

¹² See https://myastm.astm.org/KEY_DOCUMENTS/PDF_FILES/f150000adhoc5.pdf. This link is accessible to Committee F15 members only.

capturing consumer attention, improving readability, and increasing hazard perception and avoidance behavior. Additionally, ESHF staff believes that the warnings adequately inform consumers of the fall and strangulation hazards, consequences of these hazards, and instructions on how to reduce the risks of injury and death due to falls and strangulation associated with SACs.

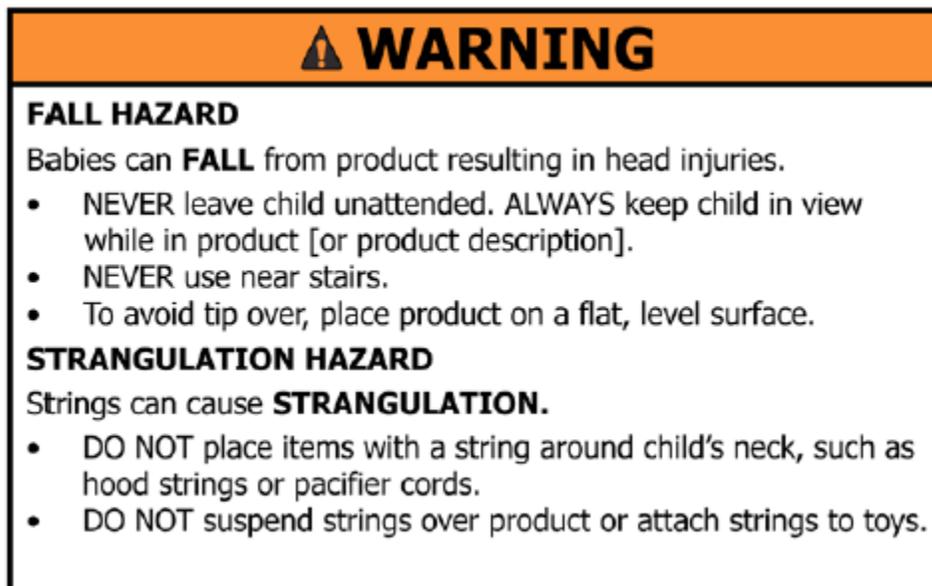


Figure 4: Sample stationary activity center warning

Section 9 Instructional Literature specifies that instructions that are easy to read and understand must be provided with the product. The on-product warnings are also required in the instructions. Among other requirements, the instructions must include developmental criteria to explain when to begin using the product, which is when the child can hold his head up unassisted at a minimum (or a later developmental level if deemed appropriate by the manufacturer) and when to discontinue using the product, such as when the child begins to walk unassisted.

CONCLUSIONS

By including the Ad Hoc TG's warning requirements that are in the current ASTM SAC standard, ESHF staff believes that the formatting and context for warning and instructional requirements specified in Sections 8 and 9 of ASTM F2012-18^{e1} adequately addresses the risk of injuries and deaths associated with using stationary activity centers.

REFERENCES

- American National Standards Institute. (2011). *ANSI Z535.4. American national standard: Product safety signs and labels*. Rosslyn, VA: National Electrical Manufacturers Association.
- American National Standards Institute. (2011). *ANSI Z535.6. American national standard: Product safety information in product manuals, instructions, and other collateral materials*. Rosslyn, VA: National Electrical Manufacturers Association.
- Salvendy, G. (Ed.). (2012). *Handbook of Human Factors and Ergonomics (4th Edition ed.)*. New Jersey, NJ, USA: John Wiley & Sons, Inc.
- Wogalter, M. S. (Ed.). (2006). *Handbook of Warnings*. Mahwah, NJ, USA: Lawrence Erlbaum Associates, Publisher.
- Wogalter, M. S., Dejoy, D. M., & Laughery, K. R. (Eds.). (1999). *Warnings And Risk Communication*. Philadelphia, PA, USA: Taylor & Francis.

TAB D: Durable Nursery Products: Summary of Stationary Activity Center Recalls from January 2013 to March 2018

**T
A
B
D**



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MARYLAND 20814

Memorandum

DATE: March 14, 2018

TO: Kevin Lee
Project Manager for Stationary Activity Centers,
Directorate of Engineering Sciences Mechanical

THROUGH: Robert Kaye
Executive Director,
Office of Compliance and Field Operations

Mary F. Toro, Director
Division of Regulatory Enforcement,
Office of Compliance and Field Operations

FROM: Keysha L. Walker
Lead Compliance Officer
Division of Regulatory Enforcement,
Office of Compliance and Field Operations

SUBJECT: Durable Nursery Products: Summary of Stationary Activity Center Recalls from
January 2013 to March 2018

PURPOSE

This memorandum summarizes the product recalls involving stationary activity centers (SACs) conducted by the Office of Compliance and Field Operations (Compliance) staff since 2013. The Danny Keysar Child Product Safety Notification Act, section 104 of the Consumer Product Safety Act, requires the Commission to study and develop safety standards for durable infant and toddler products. Agency staff is drafting a notice of proposed rulemaking for SACs that should be presented to the Commission for consideration in spring 2018. The current voluntary SAC standard is ASTM F2012-18^{e1}. The current voluntary standard is expected to be the basis for the proposed rule. A SAC, as defined in the ASTM standard, is “a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product to walk, rock, play, spin or bounce, or all of these, within a limited range of motion.”

COMPLIANCE RECALL INFORMATION

Compliance staff reviewed the recalls involving SACs from January 2013 to March 2018. During that period, there was one recall involving a Kids II, Inc., stationary activity center.¹³ A recall was initiated because one of the toy attachments on the SAC was constructed in a way that when the toy rebounded it posed an impact hazard.

This recall involved 400,000 SACs across the United States. The firm received 100 reports of incidents, including 61 reported injuries from the hazard. The injuries included bruises, facial lacerations, a lineal skull fracture sustained by a 7-month-old, and a chipped tooth sustained by an adult.

¹³ CPSC website link to recalled product: <https://www.cpsc.gov/Recalls/2013/Kids-II-Recalls-Baby-Einstein-Activity-Jumpers/>

**TAB E: Assessment of Small Business Impact of the Draft
Proposed Rule for Stationary Activity Centers**

**T
A
B

E**



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MARYLAND 20814

Memorandum

Date: May 30, 2018

TO : Kevin Lee
Project Manager, Stationary Activity Centers
Directorate for Engineering Sciences

THROUGH: Gregory B. Rodgers, Ph.D.
Associate Executive Director
Directorate for Economic Analysis

Robert L. Franklin
Senior Staff Coordinator
Directorate for Economic Analysis

FROM : Charu S. Krishnan
Economist
Directorate for Economic Analysis

SUBJECT : Assessment of Small Business Impact of the Draft Proposed Rule for Stationary Activity Centers

The current ASTM International (ASTM) standard for stationary activity centers (SACs) is ASTM F2012-18^{e1}, *Standard Consumer Safety Performance Specification for Stationary Activity Centers*. Consumer Product Safety Commission (CPSC) staff recommends that the Commission issue a proposed rule under the requirements of section 104 of the Consumer Product Safety Improvement Act (CPSIA) that incorporates by reference the most recent ASTM standard for SACs, with no modifications.

This memorandum evaluates the potential economic impact of the draft proposed rule on small entities, including small businesses, as required by the Regulatory Flexibility Act (RFA).¹⁴ Section 603 of the RFA requires that agencies prepare an initial regulatory flexibility analysis (IRFA) and make it available to the public for comment when the general notice of proposed rulemaking (NPR) is published, unless the head of the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.

Based on the analysis presented in this memo of ASTM F2012-18^{e1} with no modifications, the Commission could certify that this rule will not have a significant impact on a substantial

¹⁴ 5 U.S.C. §§ 601-612.

number of small entities involved in the manufacturing or importing of stationary activity centers. The Directorate for Economic Analysis (EC) reasoning is outlined below. However, very recently, staff learned that some support straps may fail over time, due to repeated abrasion of the strap against another component, such as a metal bucket. Consequently, staff is recommending that ASTM consider modifying the standard. This analysis does not consider any future modifications to the standard to address the fraying straps hazards. Should a requirement addressing this hazard be added to a subsequent version of the voluntary standard or draft rule, CPSC staff will assess the impact at that time.

The Product

A “stationary activity center” is defined in ASTM F2012-18⁶¹, *Standard Consumer Safety Performance Specification for Stationary Activity Centers*, as “a freestanding product intended to remain stationary that enables a sitting or standing occupant whose torso is completely surrounded by the product to walk, rock, play, spin, or bounce, or all of these, within a limited range of motion.” The updated standard includes a definition of a “spring-supported stationary activity center,” which is described as “a stationary activity center in which the sitting or standing platform is supported from below or suspended from above by springs (or equivalent resilient members).” Doorway jumpers are not included in the definition of “stationary activity centers.”

SACs typically range in price from \$30 to \$150, with spring-supported SACs typically ranging from \$50 to \$150. Some manufacturers produce multiple models, and several produce models that are similar in design, but with different accessories. They typically accommodate children who weigh less than 25 pounds and have a maximum height of 32 inches. This item is meant for children who are able to hold up their heads unassisted. For spring-supported SACs, children should not be able to have their feet flat on the ground when using the product.

There were approximately 7.5 million (95% confidence interval (CI) between 6.2 million and 8.8 million) SACs in national households with children under the age of 5 in 2013, according to the Durable Nursery Product Exposure Survey (DNPES). However, based on the same data, only about 4.1 million of these were actually in use (95% CI between 3.1 million and 5.2 million).

The Directorate for Epidemiology (EPI) staff evaluated the National Electronic Injury Surveillance System (NEISS) for injuries involving SACs for 4 years, from January 1, 2013 to December 31, 2016, but did not provide a national estimate of the annual injuries because the number of NEISS cases was insufficient to meet the Directorate for Epidemiology’s publication criteria. However, given that part of the publication criteria is that the estimate must be 1,200 or greater over the period under consideration, presumably, there would have been, on average,

fewer than 300 injuries annually involving children under age 5 years during the 4-year period considered by EPI staff.¹⁵

Combining the maximum annual emergency department-treated injury estimate with the data collected for the DNPEs yield an estimate of less than about 0.73 emergency department-treated injuries per 10,000 SACs in use ((300 injuries ÷ 4.1 million stationary activity centers in use) x 10,000).

Small Entities to Which the Draft Proposed Rule Would Apply

SAC manufacturers are categorized under the North American Industry Classification System (NAICS) category 339930 (Doll, Toy, and Game Manufacturing). Staff identified 11 U.S. manufacturers of SACs. The U.S. Small Business Administration (SBA) size guidelines for this category identify any manufacturer as “small” if it employs fewer than 500 employees. Based on this definition, 7 out of the 11 U.S. manufacturers of SACs would be considered small. Two of these manufacturers employ fewer than 50 people, one employs between 50 and 99 people, and four employ between 100 and 249 people, based on size data from Reference USA and Dun & Bradstreet. Of these seven small domestic manufacturers, three produce spring-supported stationary activity centers (one has less than 50 employees, and two have between 100 and 249 employees).

For importers, SBA guidelines consider an importer under the NAICS category 423920 (Toy and Hobby Goods and Supplies Merchant Wholesalers) with fewer than 150 employees to be small. We did not identify any small importers of SACs per SBA guidelines.

Requirements of the Draft Proposed Rule

The draft proposed rule would incorporate by reference the voluntary standard for SACs (ASTM F2012-18^{e1}), making it a mandatory product safety rule under the Consumer Product Safety Act (CPSA). Firms whose SACs do not comply will need to evaluate their products to determine what changes would be required to meet the standard, and decide how to proceed. Noncompliant products would need to be removed from the U.S. market or modified to meet the draft proposed standard, if the standard became mandatory.

The major requirements from ASTM F2012-18^{e1} are presented below:

- *Structural Integrity*—intended to ensure no failure of seams, breakage of materials or changes of adjustments that could cause the product not to fully support the child or

¹⁵ Memorandum from Risana T. Chowdhury, Division of Hazard Analysis, Directorate for Epidemiology, dated November 2, 2017, Subject: Stationary Activity Centers-Related Deaths, Injuries, and Potential Injuries; January 1, 2013 – September 30, 2017

create a hazardous condition. This includes testing with the dynamic load and the static load.

- *Leg Openings*—intended to ensure the seat of the stationary activity center does not allow too wide an opening.
- *Stability*—intended to prevent the stationary activity center from tipping over and for spring-supported stationary activity centers, to ensure that the seat will not tip excessively.
- *Motion Resistance*—intended to ensure that stationary activity centers do not move excessively when force is applied.

In addition to the requirements set forth in ASTM F2012-16 for all SACs, this revised version of the standard includes new requirements for spring-supported stationary activity centers. These include a requirement that a redundant strap must be in place to ensure that the occupant will not fall from the seat should one of the springs fail and that the redundant strap should pass a test that would not allow the seat to tilt more than 25 degrees.

Furthermore, promulgating this standard as a mandatory rule would require all domestic manufacturers of SACs and domestic importers of SACs to meet the third party testing requirements under section 14 of the Consumer Product Safety Act (as amended by the CPSIA) and part 1107 of 16 CFR.

As noted above, very recently staff learned that some support straps may fail over time, due to repeated abrasion of the strap against another component, such as a metal bucket. Because neither the current voluntary standard nor the draft proposed rule addresses this hazard pattern, staff recommends that ASTM consider modifying the standard to do so. Thus, it is possible that the voluntary standard may be modified to address this hazard before this rulemaking procedure results in a final rule.

Costs of Draft Proposed Rule that Would Be Incurred by Small Manufacturers

In addition to any costs associated with modifying a product to comply with ASTM F2012-18^{e1}, which includes the integration of the redundant strap, mandating the standard under Section 104 of the CPSIA would also require manufacturers to certify that their stationary activity centers comply with the standard, based on tests conducted by third party conformity assessment bodies. Staff believes that all seven small domestic manufacturers of SACs are currently certified by the Juvenile Products Manufacturers Association (JPMA), meaning they are compliant with the previous ASTM standard and are already conducting some third party testing on their SACs.

Cost of Modification

EC staff has not identified any small domestic manufacturers that are not in compliance with ASTM F2012-16. The additional requirements of ASTM F2012-18^{e1} may require a minor modification for manufacturers of spring-supported SACs. Of the three such manufacturers, we

have confirmed that two have already integrated a redundant strap, a new requirement of ASTM F2012-18^{e1}. However, we were not able to confirm whether the third has done so as well. If this manufacturer has not yet integrated a redundant strap, staff believes that the cost to do so will not be significant. Through informal correspondence, one manufacturer who has already integrated a redundant strap indicated that the cost is minimal, about \$0.25 - \$0.50 per SAC.

Third Party Testing Costs

Additional costs that small manufacturers would incur as a result of the draft proposed rule, if finalized, include incremental costs associated with meeting the third party testing requirements. This would apply to those that manufacture any type of SAC, not just spring-supported SACs. If the ASTM F2012-18^{e1} requirements become effective as a CPSC children's product safety rule, all manufacturers of SACs will be subject to the third party testing and certification requirements under section 14 of CPSA and the Testing and Labeling Pertaining to Product Certification rule (16 CFR part 1107) (1107 rule). Third party testing will include any physical and mechanical test requirements specified in the final SAC rule. Third party testing costs are in addition to the direct costs of meeting the SAC products standard. Staff found that all seven small manufacturers of SACs are certified by JPMA and are currently conducting third party testing. Those who manufacture spring-supported SACs will need to have the redundant strap tested to the standard, which will not be a significant cost.

Through informal correspondence, one manufacturer indicated that about 83 percent of the cost of third party testing is related to the chemical testing (prohibited phthalates, lead, ASTM F963 elements) already required by the CPSIA. Another manufacturer provided a very similar estimate of about 80 percent. The remaining approximately 20 percent of the cost represents the incremental cost of third party testing of SACs to the ASTM voluntary standard (*i.e.*, excluding the cost of chemical testing). One manufacturer estimated this remainder at about \$500 per model sample. However, because the seven manufacturers are already JPMA-certified, and therefore, already conduct some third party testing, we do not expect that any additional third party testing will be substantial.

Total Costs

Generally, EC staff considers impacts that exceed 1 percent of a firm's revenue to be potentially significant. Because all seven manufacturers are JPMA certified, we believe the only costs that may be introduced with this standard are for the integration of a redundant strap for one firm and the testing of that strap for all three firms that manufacturer spring-supported SACs. Because the smallest manufacturer of spring-supported SACs has annual revenues of approximately \$4 million, we do not expect that the added costs associated with this rule will reach the 1 percent threshold for any of the producers of SACs.

Impacts of Test Laboratory Accreditation Requirements on Small Laboratories

In accordance with section 14 of the CPSA, all children's products that are subject to a children's product safety rule must be tested by a third party conformity assessment body that has

been accredited by CPSC. These third party conformity assessment bodies test products for compliance with applicable children's product safety rules. Testing laboratories that want to conduct this testing must meet the notice of requirements (NOR) for third party conformity testing. CPSC has codified NORs in 16 CFR part 1112. Staff recommends that the Commission propose to amend 16 CFR part 1112 to establish an NOR for testing laboratories to test for compliance with the proposed SAC standard. This section assesses the impact that a proposed amendment would have on small laboratories.

CPSC conducted a final regulatory flexibility analysis (FRFA) when it adopted part 1112. 78 FR 15836 (Mar. 12, 2013). The FRFA concluded that the accreditation requirements would not have a significant adverse impact on a substantial number of small laboratories because no requirements were imposed on laboratories that did not intend to provide third party testing services. The only laboratories that were expected to provide such services were laboratories that anticipated receiving sufficient revenue from the mandated testing to justify accepting the requirements as a business decision.

For the same reasons, including the NOR for SACs in part 1112 would not have a significant adverse impact on small laboratories. Moreover, CPSC expects that only a small number of laboratories would request accreditation to test SACs, based on the number of laboratories that have applied for CPSC accreditation to test other juvenile products. Most laboratories would already have accreditation to test for conformance to other juvenile product standards; accordingly, the only cost would be to add the SACs standard to their accreditation. Test laboratories have indicated that this cost is extremely low when they are already accredited for other CPSIA section 104 rules. Therefore, the Commission could certify that the NOR for the SACs standard will not have a significant impact on a substantial number of small entities.

Conclusion

Incorporating ASTM F2012-18^{e1}, *Standard Consumer Safety Performance Specification for Stationary Activity Centers*, by reference and making it a mandatory product safety rule under the Consumer Product Safety Act (CPSA) is unlikely to have a significant economic impact on a substantial number of small entities.