



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

This document has been electronically
 approved and signed.

DATE: December 9, 2020

BALLOT VOTE SHEET

TO: The Commission
 Alberta E. Mills, Secretary

THROUGH: John G. Mullan, General Counsel
 Mary T. Boyle, Executive Director

FROM: Mary A. House, Acting Assistant General Counsel, Regulatory Affairs
 Meridith L. Kelsch, Attorney, Regulatory Affairs

SUBJECT: ASTM’s Revised Safety Standard for Infant and Cradle Swings

BALLOT VOTE DUE: Tuesday, December 15, 2020

Staff is forwarding to the Commission a briefing memorandum recommending that the Commission issue a direct final rule to update the ASTM standard incorporated by reference in the Safety Standard for Infant Swings, codified in 16 CFR part 1223. In 2012, the Commission issued the mandatory standard under the Consumer Product Safety Improvement Act of 2008 (CPSIA), incorporating by reference ASTM F2088-12a, *Standard Consumer Safety Specification for Infant Swings*, and has since updated the standard to incorporate by reference ASTM F2088-13. Under the CPSIA, when ASTM revises a voluntary standard for a durable infant or toddler product that the Commission has incorporated by reference, the revised standard automatically becomes the mandatory standard, unless the Commission determines that the revised standard “does not improve the safety of the consumer product” and notifies the voluntary standards organization. ASTM updated the voluntary standard for infant swings, issuing ASTM F2088-20, and notified the Commission of the revised standard. Staff recommends that the Commission allow the revised voluntary standard to become the mandatory standard, and publish a direct final rule to revise part 1223 to reference ASTM F2088-20. Attached for Commission consideration is a draft *Federal Register* notice for that purpose. If approved by the Commission, we will send the notice to the *Federal Register* for publication after we receive approval of the incorporation by reference from the Office of the Federal Register.

Please indicate your vote on the following options:

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

 (Signature)

 (Date)

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

(Signature)

(Date)

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

(Signature)

(Date)

IV. Take other action specified below.

(Signature)

(Date)

Attachment: Draft *Federal Register* notice: Revisions to Safety Standard for Infant Swings

[Billing Code 6355-01-P]

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1223

[Docket No. CPSC-2013-0025]

Revisions to Safety Standard for Infant Swings

AGENCY: Consumer Product Safety Commission.

ACTION: Direct final rule.

SUMMARY: In November 2012, the U.S. Consumer Product Safety Commission (CPSC) published a consumer product safety standard for infant swings under section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA). The standard incorporated by reference the ASTM voluntary standard that was in effect for infant swings at the time. The CPSIA sets forth a process for updating mandatory standards for durable infant or toddler products that are based on a voluntary standard, when a voluntary standards organization revises the standard. Consistent with the CPSIA update process, the Commission issued a direct final rule in October 2013, to revise the incorporation by reference for the mandatory swings standard, to reflect ASTM'S revised voluntary standard. Since 2013, ASTM has revised the voluntary standard for infant swings three times. This direct final rule updates the mandatory standard for infant swings to incorporate by reference ASTM's 2020 version of the voluntary standard.

DATES: The rule is effective on April 3, 2021, unless CPSC receives a significant adverse comment by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. If CPSC receives such a comment, it will publish a notice in the *Federal Register*, withdrawing this direct final rule before its effective date. The

incorporation by reference of the publication listed in this rule is approved by the Director of the Federal Register as of April 3, 2021.

ADDRESSES: You can submit comments, identified by Docket No. CPSC-2013-0025, by any of the following methods:

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

Mail/hand delivery/courier Written Submissions: Submit comments by mail/hand delivery/courier to: Division of the Secretariat, Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814; telephone: (301) 504-7479. Alternatively, as a temporary option during the COVID-19 pandemic, you may email such submissions to: cpsc-os@cpsc.gov.

Instructions: All submissions must include the agency name and docket number for this notice. CPSC may post all comments without change, including any personal identifiers, contact information, or other personal information provided, to: <https://www.regulations.gov>. Do not submit electronically: confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. If you wish to submit such information, please submit it according to the instructions for mail/hand delivery/courier written submissions.

Docket: For access to the docket to read background documents or comments received, go to: <https://www.regulations.gov>, and insert the docket number, CPSC-2013-0025, into the “Search” box, and follow the prompts.

FOR FURTHER INFORMATION CONTACT: Keysha Walker, Compliance Officer, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-6820; email: kwalker@cpsc.gov.

SUPPLEMENTARY INFORMATION:

A. Background

1. Statutory Authority

Section 104(b)(1) of the CPSIA requires the Commission to assess the effectiveness of voluntary standards for durable infant or toddler products and adopt mandatory standards for these products. 15 U.S.C. 2056a(b)(1). The mandatory standard must be “substantially the same as” the voluntary standard, or may be “more stringent than” the voluntary standard, if the Commission determines that more stringent requirements would further reduce the risk of injury associated with the product. *Id.*

Section 104(b)(4)(B) of the CPSIA specifies the process for when a voluntary standards organization revises a standard that the Commission incorporated by reference under section 104(b)(1). First, the voluntary standards organization must notify the Commission of the revision. Once the Commission receives this notification, the Commission may reject or accept the revised standard. The Commission may reject the revised standard by notifying the voluntary standards organization that it has determined that the revised standard does not improve the safety of the consumer product and that it is retaining the existing standard. When rejecting a revision, the Commission must notify

the voluntary standards organization of this determination within 90 days of receiving notice of the revision. If the Commission does not take this action to reject the revised standard, the revised voluntary standard will be considered a consumer product safety standard issued under section 9 of the Consumer Product Safety Act (15 U.S.C. 2058), effective 180 days after the Commission received notification of the revision (or a later date specified by the Commission in the Federal Register). 15 U.S.C. 2056a(b)(4)(B).

2. *Safety Standard for Infant Swings*

Under section 104(b)(1) of the CPSIA, the Commission adopted a mandatory rule for infant swings, codified in 16 CFR part 1223. The rule incorporated by reference ASTM F2088-12a, *Standard Consumer Safety Specification for Infant Swings*, with modifications to the labeling and test method requirements.¹ 77 FR 66703 (Nov. 7, 2012). At the time the Commission published the final rule, ASTM F2088-12a was the current version of the voluntary standard.

In April 2013, ASTM notified CPSC that it had issued a revised standard for infant swings, ASTM F2088-13. In accordance with the procedures set out in section 104(b)(4)(B) of the CPSIA, the revised standard became the new mandatory standard for infant swings. The Commission published a direct final rule to update 16 CFR part 1223, incorporating by reference ASTM F2088-13, without modification. 78 FR 37706 (June 24, 2013). After the Commission issued the revised mandatory standard in 2013, ASTM approved two more revisions: ASTM F2088-15 and ASTM F2088-19. However, ASTM did not officially notify CPSC of these revisions under CPSIA section 104(b)(4)(B). Consequently, these revised standards did not become the mandatory standards by

¹ The modifications included changes to the required warning label content and a revised test method to address an omission in the voluntary standard for toy mobiles attached to swings.

operation of law, and the Commission did not update the mandatory standard to incorporate by reference these revised ASTM standards. Therefore, ASTM F2088-13 remained the mandatory standard.

On October 5, 2020, ASTM notified CPSC that it had revised the voluntary standard for infant swings, approving ASTM F2088-20 on June 15, 2020.² As this preamble discusses, based on CPSC staff's review of ASTM F2088-20,³ the Commission will allow the revised voluntary standard to become the mandatory standard because the revised requirements in the voluntary standard either improve the safety of infant swings, or are safety neutral. Accordingly, by operation of law under section 104(b)(4)(B) of the CPSIA, ASTM F2088-20 will become the mandatory consumer product safety standard for infant swings on April 3, 2021. 15 U.S.C. 2056a(b)(4)(B). This direct final rule updates 16 CFR part 1223 to incorporate by reference the revised voluntary standard, ASTM F2088-20.

B. Revisions to ASTM F2088

The ASTM standard for infant swings includes performance requirements, test methods, and requirements for warning labels and instructional literature, to address hazards to infants associated with infant swings. ASTM has revised the voluntary standard for infant swings three times since ASTM F2088-13, which is the current mandatory standard. This section describes the changes in these three editions of the standard—ASTM F2088-15, ASTM F2088-19, and ASTM F2088-20. The revisions that ASTM included in the 2015 and 2019 versions of the standard are also in the newly

² ASTM published ASTM F2088-20 in July 2020.

³ CPSC staff's briefing memorandum regarding ASTM F2088-20 is available at: _____.

revised version, ASTM F2088-20, although some section and figure numbers have changed to accommodate other revisions.

1. ASTM F2088-15

On October 1, 2015, ASTM approved a revised version of the standard, ASTM F2088-15. ASTM did not notify the Commission of this revision. ASTM F2088-15 included one substantive change, several revisions to clarify existing requirements, and editorial revisions that did not alter substantive requirements in the standard or affect safety. The revisions that ASTM included in the 2015 version of the standard are also in the newly revised version, ASTM F2088-20.

a. Substantive Revisions

Section 6.5.2 of ASTM F2088-15 states: “swings with a maximum seat back angle greater than 50 degrees from horizontal measured in accordance with 7.13 shall include shoulder straps as part of the restraint system.” This requirement was already in the standard in ASTM F2088-13. However, ASTM F2088-15 added revised procedures for measuring the seat back and bottom angles for seat designs without a defined intersection of the seat bottom and back (*i.e.*, curved seats), by adding a new figure to indicate how to determine the intersection for curved seats (Figure 11, sections 7.13-7.15). ASTM F2088-15 also added the word “gently” to the direction to “gently place the Hinged Weight Gage – Infant” in this procedure (sections 7.13-7.15).

ASTM F2088-13 did not address how to measure seat angles for curved seat designs. Without a defined method, test laboratories were left to interpret how to place the Hinged Weight Gauge - Infant in the seat, resulting in inconsistent measurements among test laboratories. Inconsistent measurements among test laboratories are

problematic because these seat back angle measurements determine whether the product requires shoulder straps. Shoulder straps provide additional safety for infant swings, by preventing infant occupants from slumping forward when the seat back angle is greater than 50 degrees. Therefore, greater consistency in seat back measurements for curved seat designs improves the safety of infant swings, by ensuring that shoulder straps are included for infant swings with larger seat back angles.

b. Non-Substantive Revisions

ASTM F2088-15 also added information to provide greater clarity to consumers. ASTM F2088-13 already required a warning statement to “discontinue use of swing when infant attempts to climb out.” ASTM F2088-15 added “(approximately 9 months)” to this warning, to provide additional guidance to consumers on when to stop using the product (section 8.3.1.1(3)). ASTM F2088-15 also added minor formatting changes to align with ASTM form and style guidelines (*e.g.*, changed “in” to “in.”). These revisions are neutral regarding the safety of infant swings because they do not change any substantive requirements.

2. ASTM F2088-19

On November 15, 2019, ASTM approved a revised version of the standard, ASTM F2088-19. ASTM did not notify the Commission of this revision. ASTM F2088-19 included one substantive change, as well as several editorial revisions that did not alter substantive requirements in the standard or affect safety. The revisions that ASTM included in the 2019 version of the standard are also in the newly revised version, ASTM F2088-20.

a. *Substantive Revisions*

ASTM F2088-19 added a definition for “tethered strap” (section 3.1.11), a performance requirement (section 6.9), and a test method (section 7.16) to address possible entanglement of non-occupant children in exposed tethered straps that connect the underside of the seat to the product frame or to other straps. The new requirements only apply to tethered straps, and not straps that are loose or hanging from the product (*i.e.*, not connected to other components). The new requirement limits the length of tethered straps to a maximum of 16 inches, when measured from the back of the seat to the first attachment point (*e.g.*, another strap or part of the product frame) in accordance with the test method in section 7.16.

ASTM based the 16-inch limit on the approximate perimeter of the small head probe described in ASTM F406-19, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*, which is 16.3 inches (section X1.4). The small head probe represents a 5th percentile 6-month-old child, which is the youngest child with the developmental ability to become entrapped in a tethered strap.⁴ The ASTM ballot that lead to these requirements stated that they were intended to prevent a 6-month-old or older child from becoming entangled if exposed tethered straps under the seat of an infant swing formed a loop.

The new test method regarding tethered straps first assesses whether, over the course of five attempts, the tethered straps separate from the seat using a pull force of 5 pounds. If the tethered straps separate in all five attempts, the tethered straps are exempt from the length limit. If the tethered straps remain attached in any one of the five

⁴ ASTM F406-19, Section 5.15.3 states: “The small head probe represents the 5th percentile 6-month-old child because that is the youngest child having the developmental abilities to become entrapped.”

attempts, the tethered straps under the seat are subject to the 16-inch maximum length limit. The test method also explains how to measure the length of the strap to determine whether it complies with the 16-inch limit, and refers to the new Figures 14 and 15 as examples. These figures illustrate how to measure the exposed length on two types of tethered strap configurations. For straps that attach to a rigid portion of the product, the length is measured from the point where the strap connects with the rigid surface (Figure 14). For straps that attach to another strap, the length is measured from the point where the strap first attaches to the other strap (Figure 15).

ASTM F2088-15 did not address the entanglement hazard for non-occupant children associated with tethered straps. As such, these added requirements improve the safety of infant swings by addressing this hazard for certain tethered strap designs.⁵

b. Non-Substantive Revisions

ASTM F2088-19 also included minor additions and revisions that did not affect the substantive requirements in the standard. The following revisions are neutral regarding the safety of infant swings because they do not change any substantive requirements:

- section 1.5 says “safety, health and environmental,” instead of “safety and health”;
- a new section 1.6 indicates that ASTM developed the standard in accordance with principles recognized by the World Trade Organization;

⁵ See staff’s briefing memorandum, available at _____, for discussion of staff’s assessment that these added requirements only address the hazard for certain tethered strap designs.

- in section 2.1, the list of referenced ASTM standards reflects a change to the title of ASTM D3359 and adds ASTM F406, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*;
- revised unit expressions align with ASTM form and style guidelines (*e.g.*, changed “hour” to “h”; changed “73 ± 9 °F” to “73 °F ± 9 °F”);
- minor spelling changes (*e.g.*, changed “a/c” to “AC”); and
- updated section numbers to reflect added sections.

3. ASTM F2088-20

On June 15, 2020, ASTM approved a revised version of the standard, ASTM F2088-20. In accordance with CPSIA section 104(b)(4)(B), ASTM notified CPSC of this revision on October 5, 2020. ASTM F2088-20 includes several substantive changes, several revisions to clarify existing requirements, and editorial revisions that do not alter substantive requirements in the standard or affect safety. The revisions that ASTM included in the 2015 and 2019 versions of the standard are also in the newly revised version, ASTM F2088-20.⁶

Several changes in ASTM F2088-20 are intended to align with wording changes ASTM initiated for all of its juvenile products standards. After publishing ASTM F2088-13, ASTM convened a task group, the ASTM Ad Hoc Wording Task Group (Ad Hoc TG) to harmonize the wording of common provisions (*e.g.*, introduction, scope, protective components), as well as warning label requirements, across durable infant and toddler product voluntary standards. The Ad Hoc TG consists of members of various durable nursery products voluntary standards committees, including CPSC staff. The

⁶ Some section and figure numbers may differ in ASTM F2088-20 due to other revisions.

final Ad Hoc TG recommendations are in a reference document, titled, “Recommended Language Approved by Ad Hoc Task Group, Revision E, May 28, 2019,” and are part of the F15 Committee Documents. ASTM F15 committees have used these recommendations to update juvenile products standards so that common provisions and requirements for warnings are consistent across the standards.⁷ There are substantive and non-substantive revisions in ASTM F2088-20 that are intended to align with the Ad Hoc TG recommendations; these revisions are explained in more detail in subsections *a. Substantive Revisions* and *b. Non-Substantive Revisions*, below.

a. Substantive Revisions

ASTM F2088-20 includes revisions and additions to substantive requirements, as well as changes that make existing requirements clearer or more explicit.

Scope. A new section 1.3 specifies that the standard covers products with a powered mechanism that provides a swinging or gliding seat/cradle in any direction relative to the frame. Section 1.3 also notes that swinging or gliding mechanisms can be powered by batteries, AC adapters, wind-up mechanisms, or other means. These revisions do not expand or modify the scope of the standard. Other sections of the standard already addressed the listed features (*e.g.*, requirements regarding battery compartments and AC adapters), indicating that products with those features are within the scope of the standard. This revision merely highlights and clarifies that the standard covers this range of products. Accordingly, these changes to section 1.3 are neutral to the safety of infant swings because they do not alter any substantive requirements.

⁷ This process is ongoing, and ASTM has not yet updated all of its juvenile products standards to reflect these changes.

Section 1.3 also specifies that the standard does not cover products that are intended to provide sleeping accommodations for the occupant. This revision does not alter the scope of the standard. However, explicitly stating that the infant swing standard does not cover products intended for infant sleep will assist manufacturers to recognize that the swing standard is not applicable to products intended for sleep, which are subject to other standards. As such, this revision improves the safety of infant swings because it clarifies the types of products that are subject to the standard.

Referenced Documents. Section 2.1 includes a new reference to ASTM F2194, *Standard Consumer Safety Specification for Bassinets and Cradles*, because this standard is referenced as part of a new requirement (see **General Requirements**, below).

Terminology. ASTM F2088-20 updates two definitions and adds a third to align with the Ad Hoc TG recommendations. The terms “conspicuous” (Section 3.1.2) and “static load” (Section 3.1.11) were already defined in the standard; the revisions simply modify wording and do not alter the substantive meaning of the terms. “Protective component” (Section 3.1.10) was not previously defined in the standard, but there were already requirements for “protective components” in the standard, and those provisions described the meaning of the term. The revision moves that description to a formal definition.

ASTM F2088-20 also includes updated definitions for “cradle swing” (Section 3.1.3) and “infant swing” (Section 3.1.5) to specify the maximum developmental and age limit for each product. This information was already in the warning requirements; the revisions only add these details to the formal definitions.

ASTM also added a new definition for “combination swing” (Section 3.1.1.) to address products with both a cradle swing and infant swing use, mode, or position. The standard already addressed “combination swings”—Section 8.5 describes them as products with both a cradle mode and a seated mode, and applies labeling requirements to them. However, the standard did not previously contain a formal definition of the term.

ASTM also revised the definition of “travel swing” (Section 3.1.14). Previously, ASTM defined “travel swing” as a “low-profile, compact swing,” grouping all compact swing products into a single term. The revised definition does the same, but because of the revised definitions of “infant swing,” “cradle swing,” and “combination swing,” the revised definition of “travel swing” lists the compact versions of each product type (*i.e.*, “low-profile, compact infant, cradle, or combination swing”).

These revisions to the terminology in ASTM F2088-20 are neutral to the safety of infant swings because they do not alter the meaning of the terms or the substantive requirements that apply to these products.

General Requirements. ASTM F2088-20 includes revised requirements for protective components (Section 5.8). The standard already required testing to assess the potential removal of protective components. The revision specifies that all protective components that are accessible to a child in or around the product must be evaluated according to the requirements for protective components. As such, the revision clarifies which protective components to assess. This revision improves the safety of infant swings because it ensures that all accessible protective components are tested for potential removal.

The standard also includes a new requirement that cradle swings or combination swings in a cradle swing use, mode, or position, while in the rest (*i.e.*, non-rocking) position, comply with the requirements of ASTM F2194, *Standard Consumer Safety Specification for Bassinets and Cradles* (section 5.11). As a general matter, ASTM F2088-20 does not cover products that are intended as sleeping accommodations (section 1.3) and the standard requires swings to display warnings that the products are not safe for unattended sleep (section 8.5.1). However, cradle swings, when at rest, have characteristics that are consistent with a stationary bassinet or cradle, where the occupant is lying flat, and is not being rocked. As such, cradle swings, while at rest, may serve as a sleep surface, despite the on-product warnings. If used as a sleep surface, these swings may present hazards consistent with a bassinet or cradle. ASTM F2194 addresses these hazards, including requirements to provide a safe sleep environment. This addition improves the safety of infant swings because it requires swings that function like bassinets or cradles to meet the safety requirements for such products.

Performance Requirements. Section 6.5 already included requirements for restraint systems and specified that a restraint system is required to secure an occupant in the seated position in any manufacturer-recommended use positions. However, ASTM F2088-20 adds to this requirement that cradle swings and combination swings, when in all manufacturer's use positions as a cradle swing, shall not have a restraint system. This prevents occupants of cradle swings (which are intended for infants from birth to approximately 5 months old) from getting entangled in restraints while lying flat, and is consistent with the bassinet standard (ASTM F2194). This revision improves the safety of infant swings by addressing a potential entanglement hazard.

Marking and Labeling. ASTM F2088-20 does not include the previous requirement that manufacturers mark each product and its retail packaging with a model number and change the model number when they make changes to the product that affect conformance with the safety standard (previous Section 8.1.2). The ASTM ballot that led to removing this requirement suggested that the rationale was to provide consistency with other juvenile products standards, which do not contain this requirement. This requirement likely was intended to facilitate recalls, by providing a way to identify products made during a certain time. However, other remaining requirements accomplish this purpose. Section 8.1.2 still requires manufacturers to mark products with the month and year of manufacture, and 16 CFR 1130.4 requires manufacturers that use model names or numbers to permanently mark that identifying information on their infant or toddler products. Therefore, the revision is neutral with respect to the safety of infant swings because other requirements accomplish the same purpose.

ASTM F2088-20 also includes revised marking and labeling requirements, including warning formatting and wording, to align with the Ad Hoc TG recommendations. Revised wording of warnings statements (Section 8.5) includes changing “Always secure infant in the restraint system provided” to “ALWAYS use restraints. Adjust to fit snugly,” and changing “Never leave infant unattended in swing” to “Stay near and watch infant during use.” This revised language more directly indicates to caregivers what actions to take.

The revised standard also includes two new warning subsections, for combination swings (Section 8.5.3) and travel swings (Section 8.5.4). The standard already included the warning requirements for these swing designs, but they were embedded in the general

warning requirements. Moving them to individual sections based on product type highlights the importance of these warnings and clearly matches warnings with the corresponding product design.

The revised marking and labeling requirements in ASTM F2088-20 improve the safety of infant swings by providing clear, direct, and product-specific requirements, and providing consistency across juvenile product standards.

Instructional Literature. ASTM F2088-20 includes revised requirements for instructional literature (Section 9) for consistency with the Ad Hoc TG recommendations and the revised warning label requirements in Section 8. These revisions improve the safety of infant swings by providing clear warning information and instructional literature that is consistent with the corresponding on-product warnings and across juvenile product standards.

b. Non-Substantive Revisions

ASTM F2088-20 also includes minor additions and revisions that are editorial and do not alter any substantive requirements in the standard. Because they do not change any substantive requirements, these revisions are neutral regarding the safety of infant swings.

Title. ASTM F2088-20 revises the title for the standard, changing it from “Standard Consumer Safety Specification for Infant Swings” to “Standard Consumer Safety Specification for Infant and Cradle Swings.” This title change does not alter the scope of the standard; performance requirements and test methods for cradle swings have been in the standard since ASTM first adopted it. This revision makes it clear in the title that the standard applies to cradle swings.

Introduction. The revised standard includes updated introduction language to align with the Ad Hoc TG recommendations. This includes replacing the statements regarding reasonably foreseeable misuse or abuse with a single statement that conveys the same information. Specifically, the revision retains the existing statement that the voluntary standard covers normal and reasonably foreseeable misuse or abuse of infant swings, and removes an additional sentence about careless or blatant misuse. This revision clarifies, and does not alter, the type of use covered by the standard. In addition, the introduction includes minor wording changes (*e.g.*, “infant swing incidents” changed to “incidents associated with swings intended for infants”).

Scope. ASTM F2088-20 includes minor wording changes in the scope section (*e.g.*, deleting “consumer safety” from “this consumer safety specification”) to harmonize with the Ad Hoc TG recommendations (Section 1.6).

Referenced Documents. ASTM F2088-20 includes a revised list of referenced documents. ASTM updated the title of Section 2.2 from “Federal Standards” to “Federal Regulations,” and added a new section 2.3 to include ANSI standards. These revisions are consistent with other ASTM standards and aligns with the Ad Hoc TG recommendations.

General Requirements. ASTM F2088-20 includes several revisions to section 5 to harmonize the wording with the Ad Hoc TG recommendations. These revisions include minor wording changes in the sections on “Scissoring, Shearing, and Pinching” (Section 5.5), “Protective Components” (Section 5.8), and “Toys” (Section 5.10) (*e.g.*, changing “component” to “component(s),” changing “must meet” to “shall comply with”).

Test Methods. Minor editorial revisions in the test methods section (Section 7) maintain consistency with wording and unit expressions in the rest of the standard and other ASTM standards (*e.g.*, adding a space after the number to change “68°F ± 9°F” to “68 °F ± 9 °F,” changing “0.040” to “0.04,” and correcting the spelling of “Gauge”). In addition, ASTM harmonized the “*Removal of Protective Components Test*” wording (Section 7.2) with the Ad Hoc TG recommendations. These revisions do not alter the substance of the requirements.

C. Incorporation by Reference

Section 1223.2 of the direct final rule incorporates by reference ASTM F2088-20. The Office of the Federal Register (OFR) has regulations regarding incorporation by reference. 1 CFR part 51. Under these regulations, agencies must discuss, in the preamble to a final rule, ways in which the material the agency incorporates by reference is reasonably available to interested parties, and how interested parties can obtain the material. In addition, the preamble to the final rule must summarize the material. 1 CFR 51.5(b).

In accordance with the OFR regulations, section **B. Revisions to ASTM F2088**, of this preamble summarizes the major provisions of ASTM F2088-20 that the Commission incorporates by reference into 16 CFR part 1223. The standard is reasonably available to interested parties and interested parties can purchase a copy of ASTM F2088-20 from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959 USA; phone; 610-832-9585; www.astm.org. Additionally, until the direct final rule takes effect, a read-only copy of ASTM F2088-20 is available for viewing on ASTM’s website at: <https://www.astm.org/CPSC.htm>. Once

the rule takes effect, a read-only copy of the standard will be available for viewing on the ASTM website at: <https://www.astm.org/READINGLIBRARY/>. Interested parties can also schedule an appointment to inspect a copy of the standard at CPSC's Division of the Secretariat, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone: 301-504-7479; email: cpsc-os@cpsc.gov.

D. Certification

Section 14(a) of the Consumer Product Safety Act (CPSA; 15 U.S.C. 2051-2089) requires manufacturers of 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, to certify that the products comply with all applicable CPSC requirements. 15 U.S.C. 2063(a). Such certification must be based on a test of each product, or on a reasonable testing program, or, for children's products, on tests of a sufficient number of samples by a third party conformity assessment body accredited by CPSC to test according to the applicable requirements. As noted, standards issued under section 104(b)(1)(B) of the CPSIA are "consumer product safety standards." Thus, they are subject to the testing and certification requirements of section 14 of the CPSA.

Because infant swings are children's products, a CPSC-accepted third party conformity assessment body must test samples of the products. Products subject to part 1223 also must comply with all other applicable CPSC requirements, such as the lead content requirements in section 101 of the CPSIA,⁸ the phthalates prohibitions in section 108 of the CPSIA⁹ and 16 CFR part 1307, the tracking label requirements in section

⁸ 15 U.S.C. 1278a.

⁹ 15 U.S.C. 2057c.

14(a)(5) of the CPSA,¹⁰ and the consumer registration form requirements in section 104(d) of the CPSIA.¹¹

E. Notice of Requirements

In accordance with section 14(a)(3)(B)(iv) of the CPSIA, the Commission previously published a notice of requirements (NOR) for accreditation of third party conformity assessment bodies for testing infant swings. 78 FR 15836 (Mar. 12, 2013). The NOR provided the criteria and process for CPSC to accept accreditation of third party conformity assessment bodies for testing infant swings to 16 CFR part 1223. The NORs for all mandatory standards for durable infant or toddler products are listed in the Commission's rule, "Requirements Pertaining to Third Party Conformity Assessment Bodies," codified in 16 CFR part 1112. *Id.*

ASTM F2088-20 includes revised requirements for testing infant swings. However, these revisions to test requirements do not require additional equipment or test protocols beyond those that already exist in the standard. Accordingly, the revisions do not significantly change the way that third party conformity assessment bodies test these products for compliance with the infant swings standard. Laboratories will begin testing to the new standard when ASTM F2088-20 goes into effect, and the existing accreditations that the Commission has accepted for testing to this standard will cover testing to the revised standard. Therefore, the Commission considers the existing CPSC-accepted laboratories for testing to ASTM F2088-13 to be capable of testing to ASTM F2088-20 as well. Accordingly, the existing NOR for this standard will remain in place, and CPSC-accepted third party conformity assessment bodies are expected to update the

¹⁰ 15 U.S.C. 2063(a)(5).

¹¹ 15 U.S.C. 2056a(d).

scope of the testing laboratories' accreditations to reflect the revised standard in the normal course of renewing their accreditations.

F. Direct Final Rule Process

The Commission is issuing this rule as a direct final rule. Although the Administrative Procedure Act (APA; 5 U.S.C. 551-559) generally requires agencies to provide notice of a rule and an opportunity for interested parties to comment on it, section 553 of the APA provides an exception when the agency, "for good cause finds," that notice and comment are "impracticable, unnecessary, or contrary to the public interest." *Id.* 553(b)(B). The Commission concludes that when it updates a reference to an ASTM standard that the Commission incorporated by reference under section 104(b) of the CPSIA, notice and comment are not necessary.

Under the process set out in section 104(b)(4)(B) of the CPSIA, when ASTM revises a standard that the Commission has previously incorporated by reference under section 104(b)(1)(B) of the CPSIA, that revision will become the new CPSC standard, unless the Commission determines that ASTM's revision does not improve the safety of the product. Thus, unless the Commission makes such a determination, the ASTM revision becomes CPSC's standard by operation of law. The Commission is allowing ASTM F2088-20 to become CPSC's new standard. The purpose of this direct final rule is to update the reference in the Code of Federal Regulations (CFR) so that it reflects the version of the standard that takes effect by statute. This rule updates the reference in the CFR, but under the terms of the CPSIA, ASTM F2088-20 takes effect as the new CPSC standard for infant swings, even if the Commission does not issue this rule. Thus, public comments would not alter substantive changes to the standard or the effect of the revised

standard as a consumer product safety standard under section 104(b) of the CPSIA. Under these circumstances, notice and comment are unnecessary.

In Recommendation 95-4, the Administrative Conference of the United States (ACUS) endorses direct final rulemaking as an appropriate procedure to expedite rules that are noncontroversial and that are not expected to generate significant adverse comments. *See* 60 FR 43108 (Aug. 18, 1995). ACUS recommends that agencies use the direct final rule process when they act under the “unnecessary” prong of the good cause exemption in 5 U.S.C. 553(b)(B). Consistent with the ACUS recommendation, the Commission is publishing this rule as a direct final rule, because CPSC does not expect any significant adverse comments.

Unless CPSC receives a significant adverse comment within 30 days of this notification, the rule will become effective on April 3, 2021. In accordance with ACUS’s recommendation, the Commission considers a significant adverse comment to be “one where the commenter explains why the rule would be inappropriate,” including an assertion challenging “the rule’s underlying premise or approach,” or a claim that the rule “would be ineffective or unacceptable without change.” 60 FR 43108, 43111. As noted, this rule merely updates a reference in the CFR to reflect a change that occurs by statute.

If the Commission receives a significant adverse comment, the Commission will withdraw this direct final rule. Depending on the comment and other circumstances, the Commission may then incorporate the adverse comment into a subsequent direct final rule or publish a notice of proposed rulemaking, providing an opportunity for public comment.

G. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA; 5 U.S.C. 601-612) generally requires agencies to review proposed and final rules for their potential economic impact on small entities, including small businesses, and prepare regulatory flexibility analyses. 5 U.S.C. 603, 604. The RFA applies to any rule that is subject to notice and comment procedures under section 553 of the APA. *Id.* As discussed in section **F. Direct Final Rule Process** of this preamble, the Commission has determined that notice and the opportunity to comment are unnecessary for this rule. Therefore, the RFA does not apply. CPSC also notes the limited nature of this document, which merely updates the incorporation by reference to reflect the mandatory CPSC standard that takes effect under section 104 of the CPSIA.

H. Paperwork Reduction Act

The current mandatory standard for infant swings includes requirements for marking, labeling, and instructional literature that constitute a “collection of information,” as defined in the Paperwork Reduction Act (PRA; 44 U.S.C. 3501-3521). The revised mandatory standard does not alter these requirements. The Commission took the steps required by the PRA for information collections when it adopted 16 CFR part 1223, including obtaining approval and a control number. Because the information collection is unchanged, the revision does not affect the information collection requirements or approval related to the standard.

I. Environmental Considerations

The Commission’s regulations provide a categorical exclusion for the Commission’s rules from any requirement to prepare an environmental assessment or an

environmental impact statement where they “have little or no potential for affecting the human environment.” 16 CFR 1021.5(c)(2). This rule falls within the categorical exclusion, so no environmental assessment or environmental impact statement is required.

J. Preemption

Section 26(a) of the CPSA 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. 15 U.S.C. 2075(a). Section 26(c) of the CPSA also provides that states or political subdivisions of states may apply to CPSC for an exemption from this preemption under certain circumstances. Section 104(b) of the CPSIA deems rules issued under that provision “consumer product safety standards.” Therefore, once a rule issued under section 104 of the CPSIA takes effect, it will preempt in accordance with section 26(a) of the CPSA.

K. Effective Date

Under the procedure set forth in section 104(b)(4)(B) of the CPSIA, when a voluntary standards organization revises a standard that the Commission adopted as a mandatory standard, the revision becomes the CPSC standard within 180 days of notification to the Commission, unless the Commission determines that the revision does not improve the safety of the product, or the Commission sets a later date in the *Federal Register*. 15 U.S.C. 2056a(b)(4)(B). The Commission is taking neither of those actions with respect to the standard for infant swings. Therefore, ASTM F2088-20 automatically will take effect as the new mandatory standard for infant swings on April 3, 2021, 180

days after the Commission received notice of the revision on October 5, 2020. As a direct final rule, unless the Commission receives a significant adverse comment within 30 days of this notice, the rule will become effective on April 3, 2021.

L. Congressional Review Act

The Congressional Review Act (CRA; 5 U.S.C. 801-808) states that before a rule may take effect, the agency issuing the rule must submit the rule, and certain related information, to each House of Congress and the Comptroller General. 5 U.S.C. 801(a)(1). The CRA submission must indicate whether the rule is a “major rule.” The CRA states that the Office of Information and Regulatory Affairs (OIRA) determines whether a rule qualifies as a “major rule.”

Pursuant to the CRA, this rule does not qualify as a “major rule,” as defined in 5 U.S.C. 804(2). To comply with the CRA, CPSC will submit the required information to each House of Congress and the Comptroller General.

List of Subjects in 16 CFR Part 1223

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

For the reasons discussed in the preamble, the Commission amends 16 CFR chapter II as follows:

PART 1223 – SAFETY STANDARD FOR INFANT SWINGS

1. Revise the authority citation for part 1223 to read as follows:

Authority: Sec. 104, Pub. L. 110-314, 122 Stat. 3016 (15 U.S.C. 2056a); Sec 3, Pub. L. 112-28, 125 Stat. 273.

2. Revise § 1223.2 to read as follows:

§ 1223.2 Requirements for Infant Swings.

Each infant swing shall comply with all applicable provisions of ASTM F2088-20, *Standard Consumer Safety Specification for Infant and Cradle Swings*, approved on June 15, 2020. 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 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959; phone: (610) 832-9585; www.astm.org. A read-only copy of the standard is available for viewing on the ASTM website at <https://www.astm.org/READINGLIBRARY/>. You may inspect a copy at the Division of the Secretariat, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone (301) 504-7479, email: cpsc-os@cpsc.gov, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Alberta E. Mills,
Secretary,
Consumer Product Safety Commission.



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

This document has been electronically
approved and signed.

Memorandum

December 9, 2020

TO : The Commission
Alberta E. Mills, Secretary

THROUGH: John G. Mullan, General Counsel
Mary T. Boyle, Executive Director
DeWane Ray, Deputy Executive Director for Safety Operations

FROM : Duane E. Boniface, Assistant Executive Director
Office of Hazard Identification and Reduction

Carlos G. Torres, Mechanical Engineer
Division of Mechanical and Combustion Engineering
Directorate for Engineering Sciences

SUBJECT : Notice of Revision to the Safety Standard for Infant Swings (16 CFR part 1223)

I. INTRODUCTION

The Danny Keysar Child Product Safety Notification Act, section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA), instructs voluntary standards organizations, such as ASTM International (ASTM), to notify the U.S. Consumer Product Safety Commission (CPSC) of revisions to voluntary standards that are a basis for a consumer product safety standard promulgated by the Commission. CPSIA section 104(b)(4)(B) states:

COMMISSION ACTION ON REVISED VOLUNTARY STANDARD - If an organization revises a standard that has been adopted, in whole or in part, as a consumer product safety standard under this subsection, it shall notify the Commission. The revised voluntary standard shall be considered to be a consumer product safety standard issued by the Commission under section 9 of the Consumer Product Safety Act (15 U.S.C. 2058), effective 180 days after the date on which the organization notifies the Commission (or such later date specified by the Commission in the Federal Register) unless, within 90 days after receiving that notice, the Commission notifies the organization that it has determined that the proposed revision does not improve the safety of the

consumer product covered by the standard and that the Commission is retaining the existing consumer product safety standard.

On October 5, 2020, ASTM notified CPSC that it revised the voluntary standard on which the mandatory standard for infant swings is based. The revised standard is ASTM F2088-20, *Standard Consumer Safety Specification for Infant and Cradle Swings*, approved by ASTM in June 2020 (ASTM F2088-20). This memorandum outlines the differences between the Commission's mandatory standard for infant swings in 16 CFR part 1223 (part 1223), and ASTM F2088-15, ASTM F2088-19, and ASTM F2088-20, ASTM's three revised voluntary standards since the Commission incorporated by reference ASTM F2088-13 as the mandatory standard for infant swings.¹ Staff recommends allowing ASTM F2088-20 to be considered as the new consumer product safety standard for infant swings. In addition, staff recommends issuing a direct final rule to incorporate by reference ASTM F2088-20 as the mandatory standard codified in part 1223.

II. BACKGROUND

In 2012, the Commission issued the Safety Standard for Infant Swings under section 104 of the CPSIA.² The Commission incorporated by reference ASTM F2088-12a, *Standard Consumer Safety Specification for Infant Swings*, with modifications.³ In 2013, the Commission revised the standard under CPSIA section 104(b)(4)(B), incorporating by reference ASTM F2088-13, with no modifications.⁴ On October 5, 2020, ASTM officially notified CPSC that it published a revised 2020 version of ASTM F2088 that affects the requirements for infant and cradle swings.

ASTM F2088-20 applies to swings with a powered mechanism used to provide a swinging or gliding seat/cradle in any direction relative to the frame. The swinging or gliding mechanism can be powered by batteries, AC adapter, wind-up mechanism, or other means. A cradle swing allows the infant to swing while lying flat, and it is intended for children from birth until the infant can roll over or push on hands and knees (approximately 5 months). An infant swing enables the infant to swing in a seated position, and it is intended for children from birth until the infant attempts to climb out of the product (approximately 9 months). ASTM F2088-20 does not cover products that are intended to provide sleeping accommodations for the occupant.

¹ Although ASTM issued ASTM F2088-15 and ASTM F2088-19 after the Commission issued the current mandatory standard in 2013, ASTM did not officially notify the Commission of these revisions under CPSIA section 104(b)(4)(B).

² 77 *Fed. Reg.* 66,703 (Nov. 7, 2012).

³ The modifications included changes to the labeling requirements and a revised test method to address an omission in the voluntary standard in the test method for toy mobiles that are attached to swings.

⁴ 78 *Fed. Reg.* 37,706 (June 24, 2013).

III. DISCUSSION

The Commission's Safety Standard for Infant Swings in part 1223 currently incorporates by reference ASTM F2088-13, with no modifications. ASTM has updated the standard three times since ASTM F2088-13, issuing ASTM F2088-15, -19, and -20. ASTM F2088-20 includes the changes that ASTM added in the 2015 and 2019 versions. The most significant change was the addition of a new performance requirement in ASTM F2088-19 to address possible entanglement of non-occupant children in exposed tethered straps that connect the underside of the seat to the product's frame or to other straps. Staff concluded that this requirement improves the safety of infant swings; however, certain tethered strap designs may still pose an entanglement and strangulation hazard. Staff has informed ASTM of this issue⁵ and will continue to work with ASTM to develop more effective requirements. The sections that follow discuss, in detail, non-substantive and substantive changes since ASTM F2088-13.

A. Comparison and Review of Standard ASTM F2088-15

On October 1, 2015, ASTM approved a revised version of ASTM F2088 and published it as ASTM F2088-15, but did not notify CPSC of the revision. The 2015 revision contained several editorial, non-substantive changes, and one substantive change.

Non-substantive changes

ASTM made minor formatting changes to bring the standard into accord with ASTM form and style guidelines (e.g., “in” to “in.”). In section 8.3.1.1 (3), ASTM added the parenthetical statement “(approximately 9 months)” to provide additional guidance on when to stop using the product. Staff finds that all of the non-substantive changes made in ASTM F2088-15 are neutral regarding safety for infant and cradle swings because they are editorial and informational in nature.

Substantive change

ASTM made one substantive change in ASTM F2088-15. Section 6.5.2 of the standard (in both F2088-13 and F2088-15) states: “swings with a maximum seat back angle greater than 50 degrees from horizontal measured in accordance with 7.13 shall include shoulder straps as part of the restraint system.” Section 7.13 in ASTM F2088-15 revised procedures for measuring the seat back and bottom angles for seat designs without a defined intersection of the seat bottom and seat back (i.e., curved seat). ASTM F2088-15 added a new figure (Fig. 11) that describes how to determine the intersection (or bight line) for curved seats by using the Hinged Weight Gauge - Infant for angle measurement. Additionally, the word “gently” in “gently place” was added to the

⁵ See, e.g., staff letter to Ms. Costello, chair of ASTM F15.21 on Infant Swings, dated October 1, 2020.

procedure. ASTM updated sections 7.13, 7.14, and 7.15 with the added language and reference to the new figure.

The revision in F2088-15 addressed inconsistencies in testing. F2088-13 did not address how to measure the seat angles for curved seat designs. Without a defined method, this led to inconsistent interpretations of how to place the Hinged Weight Gauge - Infant in the seat, resulting in inconsistent measurements among test laboratories. This inconsistency is important because the results of these measurements affect whether shoulder straps are required for a product. Shoulder straps provide additional safety for infant swings, by preventing the infant from slumping forward when the seat back angle is greater than 50 degrees. Staff concludes that this change improves the safety of infant and cradle swings, by reducing inconsistency for curved seat design measurements, which ensures shoulder straps are actually provided when needed for higher seat back angles.

B. Comparison and Review of Standard ASTM F2088-19

ASTM revised ASTM F2088-15 and published the resulting standard, ASTM F2088-19, in November 2019. ASTM did not notify the Commission of the revision. Changes to the standard included non-substantive changes and one substantive change.

Non-substantive changes

ASTM made a number of minor and editorial changes throughout ASTM F2088-19, which staff concludes are neutral to the safety of infant and cradle swings. These included:

- In section 1.5, “*safety and health*” was changed to “*safety, health, and environmental.*”
- Section 1.6 was added, stating that ASTM developed the standard in accordance with principles recognized by the World Trade Organization.
- In section 2.1, reference to ASTM D3359 was updated to reflect a title name change. Additionally, the ASTM standard F406, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*, was added to the referenced ASTM document list.
- Changes to unit expressions brought the standard into accord with ASTM form and style guidelines. For example, the revision added a unit of measurement for each numerical value — “ $73\text{ }^{\circ}\text{F} \pm 9\text{ }^{\circ}\text{F}$,” instead of “ $73 \pm 9\text{ }^{\circ}\text{F}$,” and “*hour*” changed to “*h.*”
- Minor spelling changes (*e.g.*, “*a/c*” to “*AC*” in section 7.1).
- Updates to the sections’ numbering hierarchy throughout the standard to reflect the added sections.

Staff concludes that all of the non-substantive changes made in ASTM F2088-19 are neutral regarding safety for infant and cradle swings because they are editorial in nature.

Substantive changes

ASTM F2088-19 included one substantive change that impacts the safety of infant and cradle swings. ASTM added a new performance requirement (section 6.9, *Tethered Strap Accessibility for Non-Occupants*) to address possible entanglement of non-occupant children in exposed tethered straps that connect the underside of the seat to the product's frame or to other straps. The new requirement limited the maximum length of tethered straps to 16 inches when tested in accordance with a new section 7.16.⁶ ASTM chose the 16-inch limit based on the approximate perimeter calculated from the small head probe in ASTM F406-19, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*, which is 16.3 inches.⁷ The small head probe is representative of a 5th percentile 6-month-old child, which is the youngest child having the developmental ability to become entrapped in a tethered strap.⁸ The ballot for this change stated that the new requirement was intended to prevent a 6-month-old or older child from getting entangled if exposed tethered straps underneath the seat were to form a loop.⁹ This requirement applied only to tethered straps, and excluded straps that are loose or hanging from the product (*i.e.*, not connected to other components). ASTM added the definition of "*tethered strap*" to section 3.1.11, and added its clarification (regarding loose or hanging straps) to section 3.1.11.1.

ASTM added testing for the new requirement to section 7.16, *Tethered Strap Accessibility Testing*. The testing first determines whether, over the course of five attempts, the tethered straps separate from underneath the seat using a pull force of 5 lb. If the tethered straps separate in all five attempts, the tethered straps are exempt from the length limit. If the tethered straps remain attached in any one of the five attempts, the available length of the tethered straps under the seat is subject to the 16-inch maximum length requirement. The testing section also explains how to measure the length of the strap to determine whether it complies with the 16-inch limit, and refers to Figures 14 and 15 as examples. ASTM added Figures 14 and 15 to illustrate how to measure the exposed length on two types of tethered strap configurations. For straps that attach to a rigid portion of the product, the length is measured from the point where the strap

⁶ The requirement allows the tethered strap to be up to a maximum of 16 inches, when measured from the back of the seat to the first attachment point (*e.g.*, another strap or part of the product's frame).

⁷ ASTM added the rationale for the tethered straps maximum length value to section X1.4 in the appendix to ASTM F2088-19.

⁸ According to section 5.15.3 in ASTM F406-19 (*Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*), rationale for *Entrapment in Accessories*, "*The small head probe represents the 5th percentile 6-month-old child because that is the youngest child having the developmental abilities to become entrapped.*"

⁹ The diameter of a 16-inch circumference loop is approximately 5.1 inches.

connects with the rigid surface (Figure 14). For straps that attach to another strap, the length is measured from the point where the strap first attaches to the other strap (Figure 15).

Staff agrees with the addition of requirements to address the entanglement hazard associated with tethered straps. However, staff's evaluation of the added requirements determined that, despite this improvement in requirements, for certain tethered strap designs, a product can pass the test, but may still pose an entanglement and strangulation hazard. Staff's conclusion is based on the fact that children can become entangled on straps that form an opening with other parts of the swing and not only on loops created by the straps. Accordingly, ASTM's requirement based on the length of the strap, rather than the size of the opening it forms, is insufficient to address the hazard fully. The intent of the 16-inch maximum length requirement was to prevent the head of a 6-month-old or older child from getting entangled if the exposed tethered straps were to form a loop with itself. However, the requirement does not account for a strap that creates a bounded opening with other parts of the swing, which could create an opening large enough to allow the head of an infant to enter, and consequently, get entangled. Additionally, the requirement does not address that adjoined straps can also pose an entrapment hazard. As explained, Figure 15 indicates that, for straps that attach to another strap, the length is measured from the point where the strap first attaches to the other strap. The standard does not address when extra strap material is added beyond the first attachment point, which extends the overall strap length and creates an even larger opening.

On October 1, 2020, staff sent a letter to the subcommittee chair, summarizing our evaluation of this issue, and suggesting reforming the task group.¹⁰ At the subcommittee meeting on November 10, 2020, the subcommittee chair agreed to form the task group to discuss the issue. Staff intends to continue to work with ASTM to revise and develop an effective requirement for tethered strap accessibility that will address more thoroughly the entanglement hazards.

Despite these shortcomings, staff concludes that adding this tethered strap length requirement and test to F2088-19 was a step forward towards addressing the entanglement hazard. ASTM F2088-13 did not address tethered strap hazards at all, so the added requirements improve safety by addressing this hazard under some scenarios. Staff concludes that this change improves the safety of infant and cradle swings because it addresses, although partially, possible entanglement hazards for non-occupant children.

¹⁰ Staff letter to Ms. Costello, chair of ASTM F15.21 on Infant Swings, dated October 1, 2020.

C. Comparison and Review of Standard ASTM F2088-20

ASTM approved ASTM F2088-20 in June 2020, and published it in July 2020. ASTM F2088-20 included all the changes discussed above, with additional changes to improve clarity, provide consistent terminology, add substantive requirements, and harmonize wording and warning label requirements consistent with other juvenile product standards.

ASTM made several revisions in ASTM F2088-20 to align with wording changes ASTM initiated for all of its juvenile products standards. After publishing the 2013 version of the standard, ASTM convened a task group, the ASTM Ad Hoc Wording Task Group (Ad Hoc TG), consisting of members of the various durable nursery products voluntary standards committees, including CPSC staff. The purpose of the Ad Hoc TG was to harmonize the wording of common provisions (*e.g.*, introduction, scope, protective components), as well as the warning label requirements, across durable infant and toddler product voluntary standards. CPSC's Human Factors Division hazard communication subject matter expert represented CPSC staff in this task group. ASTM published the Ad Hoc TG recommendations as a reference document, titled, "*Recommended Language Approved by Ad Hoc Task Group, Revision E, May 28, 2019,*" as part of the F15 Committee Documents. ASTM F15 committees then used these recommendations to update the juvenile products standards so that common provisions and requirements for warnings are consistent across the standards.¹¹

Changes to the standard included non-substantive and substantive changes.

Non-substantive changes

1. Title

In the 2020 version, ASTM added "*and Cradle*" to the name of the standard to emphasize that cradle swings are covered in the standard. Performance requirements and test methods for cradle swings have been included in the scope of the standard since the original standard was published in September 2001, but the title did not reflect the inclusion of cradle swings until this version. Staff considers this a non-substantive clarification.

2. Introduction

ASTM updated the introduction language, in conformance with the wording in the Ad Hoc Wording recommendations, for consistency with other juvenile product standards. This included changing the wording "*infant swing incidents*" for "*incidents associated with swings intended for infants,*" deleting "*consumer safety*" in "*this consumer safety specification,*" changing "*following*" for "*following hazards*" and replacing the two

¹¹ This process is ongoing, and not all standards have adopted these recommendation as of the current date.

statements regarding reasonably foreseeable misuse or abuse, and blatantly misused or used, with a simpler statement *“This specification is intended to cover normal use and reasonably foreseeable misuse or abuse of swings.”*

3. *Scope*

ASTM updated section 1.6 to harmonize the wording with the text included in the Ad Hoc Wording recommendations. This included changing the word *“method”* for *“methods”* and deleting *“consumer safety”* in *“this consumer safety specification.”*

4. *Referenced Documents*

In the list of referenced documents, ASTM updated the section 2.2 title (changing *“Federal Standards”* to *“Federal Regulations”*) and added section 2.3 (to include ANSI standards) for consistency with other ASTM standards text and to harmonize the wording with the text included in the Ad Hoc Wording recommendations.

5. *General Requirements*

ASTM made several updates to section 5, *General Requirements*, to harmonize the wording with the text included in the Ad Hoc Wording recommendations. These included updates to *“Scissoring, Shearing, and Pinching,” “Protective Components,”* and *“Toys”* (e.g., changing *“component”* to *“component(s),”* changing *“must meet”* to *“shall comply with”*). Staff concludes that these revisions are neutral to the safety of infant and cradle swings because they do not alter the substance of the requirements.

6. *Test Methods*

ASTM made minor editorial adjustments to maintain consistency with the rest of the standard’s text, such as adding a space after the number to change *“68°F ± 9°F”* to *“68 °F ± 9 °F,”* changing *“0.040”* to *“0.04,”* and making minor spelling corrections (*“Gage”* to *“Gauge”*).

In addition, ASTM harmonized the *“Removal of Protective Components Test”* wording (section 7.2) with the text included in the Ad Hoc Wording recommendations, without altering the substance of the requirements.

Staff concludes that all of these non-substantive changes are neutral to the safety of infant and cradle swings because they are editorial in nature, or do not alter the substantive meaning of the requirements, or the content of the test method.

Substantive changes

1. Scope

ASTM added section 1.3 to the scope to emphasize that products with a powered mechanism, used to provide a swinging or gliding seat/cradle in any direction relative to the frame, are covered under the standard. The section also noted that the swinging or gliding mechanisms can be powered by batteries, AC adapters, wind-up mechanisms, or other means. Lastly, ASTM added that the standard does not cover products that are intended to provide sleeping accommodations for the occupant.

This added language did not expand the scope of the standard. Other sections of the standard already addressed the listed features (*e.g.*, requirements regarding battery compartments and AC adapters), indicating that products with those features were within the scope of the standard. Adding this information to the scope highlights that the standard covers this range of products and provides greater clarity about what the term “*swing*” includes.¹² Consolidating information about products covered by the standard into the first section of the standard (Section 1. Scope) helps provide clarity about the range of swing products that fall under the standard. Staff concludes that these changes are neutral to the safety of infant and cradle swings because they do not alter the substance of the provisions.

In addition, clarifying that the standard does not cover products intended for sleeping did not alter the scope of the standard, but is useful because other standards apply to infant sleep products. Explicitly noting that this standard does not cover products intended for sleep helps to point manufacturers of sleep products away from the swing standard, so that they may identify other applicable standards. Staff concludes that this revision is an improvement in the safety of infant and cradle swings because it clarifies which products are subject to the standard.

2. Referenced Documents

In section 2.1, ASTM added a reference to ASTM F2194, *Standard Consumer Safety Specification for Bassinets and Cradles*, because this standard is referenced as part of a new requirement (in *General Requirements*, below) that cradle swings, while at rest (*i.e.*, not rocking), shall meet such standard. Although, as discussed above, ASTM F2088-20 clarified that the standard does not cover products that are intended for sleep, a cradle

¹² Another reason ASTM added this information to the scope section is that ASTM has made some efforts to include information about the products covered by a standard in the scope section of standard because the scope section is available for free on ASTM’s website. As such, adding a description of covered products to the scope section allows firms to determine whether the standard may be relevant to their product before purchasing the standard. However, this is largely unnecessary because standards that have been codified under section 104 of the CPSIA are also available in full for free in the ASTM reading room, at: www.astm.org/readingroom.

swing, when at rest, may serve as a sleep surface, even though the product is not generally intended for sleep. Adding this requirement means that a product that locks into a cradle mode must meet the established safe sleep requirements in the bassinet standard, which improves the safety of cradle swings at rest.

3. Terminology

ASTM F2088-20 updated two definitions (“*conspicuous*” and “*static load*”) and added a third (“*protective component*”) to align with the Ad Hoc Wording recommendations. The revisions to “*conspicuous*” and “*static load*” did not alter the substantive meaning of the terms. “*Protective components*” were already addressed in the standard, and the meaning of the term was previously described in those provisions; the update merely moved that description to a formal definition. Staff concludes these updates are neutral to the safety of infant and cradle swings because they did not alter the meaning of the terms.

As part of the updates to section 8, *Marking and Labeling*, ASTM updated the definitions for “*cradle swing*” and “*infant swing*” to be consistent with the warning updates in section 8. The definition updates clarified the maximum developmental and age limit for using each product. The provisions for developmental and age limit already existed in the standard, but only in section 8, as part of the required warning statements. ASTM combined the original definitions with this added information in the revised definitions in section 3, *Terminology*. Staff concludes that this change is neutral to the safety of infant and cradle swings because it does not alter the meaning of the terms.

The standard also added “*combination swing*” as a new definition, to address products designed with both a cradle swing and an infant swing use, mode, or position. “*Combination swings*” were already addressed in the standard; section 8.5 described them as products with both a cradle mode and a seated mode, and applied labeling requirements to them. But prior versions of the standard did not have a formal definition in section 3, *Terminology*. Adding a definition for this combination product did not alter the substantive meaning of the term or the requirements that would apply to “*combination swings*.” Staff concludes that adding a definition for “*combination swings*” is neutral to the safety of infant and cradle swings because ASTM did not change the substantive requirements for these products.

In addition, ASTM revised the definition of “*travel swing*.” Previously, ASTM defined “*travel swing*” as a “*low-profile, compact swing*,” which grouped all compact swing products into a single term. However, because of the revisions to the “*infant swing*,” “*cradle swing*,” and “*combination swing*” terms discussed above, ASTM updated “*travel swing*” to specify that it includes the compact versions of each product type (*i.e.*,

“compact infant swing,” “compact cradle swing,” and “compact combination swing”). This revision did not alter the meaning of the term or the requirements that apply to such products; the revision just provided greater specificity in the definition. Staff concludes that this update is neutral to the safety of infant and cradle swings.

4. *General Requirements*

ASTM revised section 5.8 regarding protective components. Previously, the standard required testing to assess the potential removal of protective components (sections 5.8 and 7.2). ASTM revised section 5.8 to specify that all protective components that are accessible to a child in or around the product must be evaluated according to the requirements for protective components. This revision did not modify the requirements for protective components, but clarified which protective components must be assessed. Staff concludes that the update to section 5.8 is an improvement to safety by requiring all accessible protective components to be tested against potential removal.

The standard also added a new requirement (section 5.11) that cradle swings or combination swings in a cradle swing use, mode, or position, while in the rest (non-rocking) position, comply with the requirements of ASTM F2194, *Standard Consumer Safety Specification for Bassinets and Cradles*. Cradle swings (and combination swings when in cradle swing use, mode, or position), while at rest, function as a stationary bassinet or cradle, where the occupant is lying flat, and is not being rocked. These characteristics are compatible with the ones described in ASTM F2194. As such, these swings may present hazards specific to bassinets or cradles that are addressed in ASTM F2194. Staff concludes that this addition is an improvement to the safety of infant and cradle swings because it requires swings that function like bassinets or cradles to meet the safety requirements for bassinets and cradles.

5. *Performance Requirements*

Section 6.5 includes requirements for restraint systems, and specifies that a restraint system is required to secure an occupant in the seated position in any manufacturer-recommended use positions. This requirement is not new. However, ASTM F2088-20 adds to the requirement that cradle swings and combination swings, when in all manufacturer’s use positions as a cradle swing, shall not have a restraint system. This is to prevent occupants of cradle swings (which are intended for infants from birth to approximately 5 months old) from getting entangled in restraints while lying flat, and is consistent with the bassinet standard (ASTM F2194). Staff concludes that adding this requirement improves the safety of infant and cradle swings by reducing a potential entanglement hazard.

6. *Marking and Labeling*

ASTM revised section 8, *Marking and Labeling*, of the 2020 standard, including changes to the formatting and wording of the warnings, in accordance with the Ad Hoc Wording recommendations.

In addition, in the 2020 revision, ASTM removed the previous section 8.1.2, which required manufacturers to mark each product and its retail packaging with a model number and to change the model number for a product when they made changes to the product that affected conformance with the safety standard. This requirement likely was intended to facilitate recalls, by providing a way to identify products made during a certain time. The ballot for removing this requirement suggested that the rationale was to provide consistency with other juvenile products standards, which do not contain this requirement. Additionally, as infant and cradle swings are durable infant or toddler products, manufacturers who use model names or numbers would still be required to permanently mark that identifying information on their products after this change in the mandatory standard reference, per 16 CFR § 1130.4. Staff concludes that other requirements in the standard (*e.g.*, marking month and year of manufacture on products), combined with the Requirements for Consumer Registration of Durable Infant or Toddler Products (16 CFR part 1130), accomplish this same goal. Accordingly, staff considers this change neutral with respect to the safety of infant and cradle swings.

ASTM revised section 8.5, *Warning Statements*, to simplify and include more personalized warnings with the use of the words: “*ALWAYS use restraints. Adjust to fit snugly,*” as opposed to “*Always secure infant in the restraint system provided,*” and “*Stay near and watch infant during use,*” versus “*Never leave infant unattended in swing.*” The revised language reduces ambiguity and uses more direct language in active voice with a specific marker to help the caregiver understand what would indicate successfully heeding the warnings (*i.e.*, “*snugly*”). Research suggests that simple language with little ambiguity increases understanding and compliance.¹³

ASTM also added two new warning subsections: 8.5.3 (for combination swings) and 8.5.4 (for travel swings). The warning requirements for these types of swing designs were already in the standard, but were embedded within the general warning requirements. ASTM separated warnings for these products into individual sections to highlight their importance and match the unique designs with their corresponding warnings.

¹³ Laughery, Sr., K. R., & Smith, D. P. (2006). Explicit Information in Warnings. In M. S. Wogalter (Ed.), *Handbook of Warnings* (pp. 419–428). Mahwah, NJ: Lawrence Erlbaum Associates.

Staff concludes that adoption of the Ad Hoc Wording recommendations and the simplified warning messaging are improvements to safety because they provide noticeable and consistent warning labels on infant and cradle swings.

7. Instructional Literature

ASTM revised the requirements for *Instructional Literature* in section 9 to harmonize them with the Ad Hoc Wording recommendations and to match the warning requirements with the *Marking and Labeling* section of the standard. Staff concludes that these changes improve the safety of infant and cradle swings because they provide noticeable warning information and instructional literature that is consistent with the corresponding on-product warnings.

D. Staff's Assessment of the Revised Voluntary Standard

Under CPSIA section 104(b)(4)(B), unless the Commission determines that ASTM's revision to a voluntary standard that is referenced in a mandatory standard "*does not improve the safety of the consumer product covered by the standard,*" the revised voluntary standard becomes the new mandatory standard. As detailed in the staff assessment above, the changes made to ASTM F2088-20 are either safety neutral or improve the safety of infant and cradle swings. Therefore, staff recommends that, pursuant to the statute, the Commission allow the revised voluntary standard to become the mandatory consumer product safety standard for infant swings. Staff also recommends that the Commission issue a direct final rule to revise the incorporation by reference in 16 CFR part 1223, to require compliance with the updated voluntary standard, ASTM F2088-20.

E. Effect of the Changes on Third Party Testing

The notice of requirements (NOR), as set out in the final rule for infant swings, provides the criteria and process for the Commission's acceptance of accreditation of third party conformity assessment bodies for testing infant swings to 16 CFR part 1223 (which incorporated ASTM F2088-13). The NORs for children's product safety rules are listed in the Commission's rule, "*Requirements Pertaining to Third Party Conformity Assessment Bodies,*" at 16 CFR part 1112.

The revisions to the seat back angle measurements method for determining the seat back and bottom intersection of curved seat designs, as well as the method for measuring the tethered strap length for the tethered strap requirement, do not require additional equipment or test protocols beyond those that already exist in the standard. Additionally, the changes to the warning and instructional literature sections do not necessitate any significant change in the way that third party conformity assessment bodies test these products. Therefore, testing laboratories that have demonstrated competence for testing in accordance with ASTM F2088 will have the competence to test in accordance with the revised standard.

For these reasons, staff recommends that the Commission accept the existing accreditations for testing to this standard as sufficient for testing to the revised standard as well. If the Commission follows this recommendation, the existing NORs for these standards would remain in place, and CPSC-accepted third party conformity assessment bodies would be expected to update the scope of the testing laboratories' accreditation(s) to reflect the revised standard in the normal course of renewing their accreditation(s). If the Commission approves the draft direct final rule, CPSC staff will notify all CPSC-accepted laboratories by e-mail and will provide links to the *Federal Register* notice to explain the changes to the standard and the effective date.

F. Effective Date

Section 104(b)(4) of the CPSIA provides that the revised standard will become effective 180 days after the date on which an organization notifies the Commission of the revision, unless the Commission notifies the organization that it has determined that the proposed revision does not improve the safety of the consumer product covered by the standard or the Commission specifies a later date. Therefore, if the Commission does not reject the revised standard, ASTM F2088-20 would be considered the new mandatory standard for infant swings effective on April 3, 2021, unless the Commission specifies a later date. Staff does not believe that a longer effective date is necessary. JPMA typically allows 6 months for products in their certification program to shift to a new voluntary standard once that new voluntary standard is published. Therefore, juvenile product manufacturers are accustomed to adjusting to new voluntary standards within this time frame.

Recently, the Commission extended the effective date for the revised Hand-Held Infant Carriers standard due to effects of the worldwide COVID-19 pandemic.¹⁴ The direct final rule updating the standard was set to take effect on August 3, 2020, but CPSC received a comment stating that the changes to printed material that would be required under the revised standard would be difficult and costly to comply with by the effective date because of printing backlogs. The public comment requested that the Commission extend the effective date to the end of calendar year 2020, suggesting that either printing backlogs will ease by then or that 4 months (August to January) would be sufficient. Based on this information, as well as Executive Order 13924, "Regulatory Relief to Support Economic Recovery,"¹⁵ which encouraged agencies to adjust requirements to address the economic consequences of COVID-19, the Commission extended the effective date to January 1, 2021.

The revisions in ASTM F2088-20, detailed above, also involve new printed materials. Because we do not know how long the pandemic conditions will continue, staff finds it difficult to

¹⁴ 85 *Fed. Reg.* 46,000 (July 31, 2020).

¹⁵ 85 *Fed. Reg.* 31,353 (May 19, 2020).

estimate the effect of the pandemic on firms' ability to comply with the revised standard. The Commission could consider a 4-month extension, similar to hand-held infant carriers, if they believe pandemic backlogs may continue past April 2021. However, staff has not received any information suggesting that an extension is necessary. At this time, staff believes it is reasonable to follow the statutory effective date. ASTM F2088-20 was approved on June 15, 2020, and published in July 2020. Typically, staff has assessed that manufacturers should have no unusual difficulty with making products that meet a revised standard within 180 days (by April 3, 2021), as that is consistent with the established JPMA certification process. In addition, the public would have the opportunity to comment on the direct final rule, and the Commission could extend the effective date, if it receives a comment indicating this is warranted.

IV. RECOMMENDATION

Staff recommends that the Commission allow ASTM F2088-20 to become the mandatory consumer product safety standard for infant and cradle swings. Staff also recommends that the Commission issue a direct final rule to revise the incorporation by reference in 16 CFR part 1223 to reflect the updated standard. Under section 104(b)(4)(B) of the CPSIA, unless the Commission notifies an organization that it has determined that a proposed revision does not improve the safety of a consumer product covered by the standard, and that the Commission is retaining the existing standard, the revised standard will become effective 180 days after the date on which an organization notifies the Commission of the revision. Staff recommends allowing ASTM F2088-20 to become the new mandatory standard for infant swings effective on April 3, 2021.