



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

BP - Full-Size and Non-Full-Size Cribs  
 Final Rules  
 The contents of this document will be  
 discussed at the Open Commission  
 Meeting on December 8, 2010.

**THIS MATTER IS NOT SCHEDULED FOR A BALLOT VOTE.**

**A DECISION MEETING FOR THIS MATTER IS SCHEDULED ON: December 15, 2010**

Date: December 1, 2010  
 This document has been electronically  
 approved and signed.

TO : The Commission  
 Todd Stevenson, Secretary

THROUGH: Kenneth R. Hinson, Executive Director  
 Cheryl A. Falvey, General Counsel  
 Philip L. Chao, Assistant General Counsel, RAD

FROM : Patricia M. Pollitzer, Attorney

SUBJECT : Final Standards for Full-Size and Non-Full-Size Cribs under Section 104 of the  
 Consumer Product Safety Improvement Act and Revocation of 16 C.F.R. Parts  
 1508 and 1509

Section 104(b) of the Consumer Product Safety Improvement Act (“CPSIA”) directs the Commission to issue safety standards for durable infant or toddler products. Attached is a briefing memorandum from the staff recommending that the Commission issue a final rule that establishes: (1) a final standard for full-size cribs that is substantially the same as ASTM F 1169-10, with two modifications, and (2) a final standard for non-full-size cribs that is substantially the same as ASTM F 406-10a, with four modifications. A draft *Federal Register* notice is attached for your consideration.

In connection with this rulemaking, we are also forwarding to the Commission a draft final rule to revoke the Commission’s crib regulations at 16 C.F.R. parts 1508 and 1509. This draft *Federal Register* notice is attached for your consideration.

Please indicate your vote on the following options.

- A. Standards for Full-Size and Non-Full-Size Cribs
  - I. Approve publication in the *Federal Register* of the draft final rule with standards for full-size and non-full-size cribs without change.

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

II. Approve publication in the *Federal Register* of the draft final rule with standards for full-size and non-full-size cribs with changes (please specify changes):

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\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

III. Do not approve publication in the *Federal Register* of the draft final rule with standards for full-size and non-full-size cribs.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

IV. Take other action (please specify):

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\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

B. Revocation of 16 C.F.R. parts 1508 and 1509

I. Approve publication in the *Federal Register* of the draft final rule revoking 16 C.F.R. parts 1508 and 1509 without change.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

II. Approve publication in the *Federal Register* of the draft final rule revoking 16 C.F.R. parts 1508 and 1509 with changes (please specify changes):

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\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

III. Do not approve publication in the *Federal Register* of the draft final rule revoking 16 C.F.R. parts 1508 and 1509.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

IV. Take other action (please specify):

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\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

[Billing Code 6355-01-P]

**CONSUMER PRODUCT SAFETY COMMISSION**

**16 CFR Parts 1219 and 1220**

**Safety Standards for Full-Size Baby Cribs and Non-Full-Size Baby Cribs; Final Rule**

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Final rule.

**SUMMARY:** Section 104(b) of the Consumer Product Safety Improvement Act of 2008 (“CPSIA”) requires the United States Consumer Product Safety Commission (“CPSC,” “Commission,” or “we”) 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 issuing safety standards for full-size and non-full-size baby cribs in response to the direction under section 104(b) of the CPSIA.<sup>1</sup> Section 104(c) of the CPSIA specifies that the crib standards will cover used as well as new cribs. The crib standards will apply to anyone who manufactures, distributes, or contracts to sell a crib; to child care facilities (including family child care homes), and others holding themselves out to be knowledgeable about cribs; to anyone who leases, sublets, or otherwise places a crib in the stream of commerce; and to owners and operators of places of public accommodation affecting commerce.

**DATES: *Effective Date:*** The rule will become effective on [insert date 6 months after publication in the FEDERAL REGISTER]. The incorporation by reference of the

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<sup>1</sup> [Insert footnote re vote and statements]

publications listed in this rule is approved by the Director of the Federal Register as of [insert date 6 months after publication in the FEDERAL REGISTER].

**Compliance Dates:** Compliance with this rule is required for child care facilities (including family child care homes) starting on [insert date 1 year after publication in the FEDERAL REGISTER], and for all other entities subject to the rule starting on [insert date 6 months after publication in the FEDERAL REGISTER].

**FOR FURTHER INFORMATION CONTACT:** Christopher Melchert, Office of Compliance and Field Operations, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-7588; [cmelchert@cpsc.gov](mailto:cmelchert@cpsc.gov).

**SUPPLEMENTARY INFORMATION:**

**A. Background and Statutory Authority**

*1. Section 104(b) of the Consumer Product Safety Improvement Act*

The Consumer Product Safety Improvement Act of 2008 (“CPSIA”, Pub. Law 110-314) was enacted on August 14, 2008. Section 104(b) of the CPSIA requires the Commission to promulgate consumer product safety standards for durable infant or toddler products. The law requires that these standards are to be “substantially the same as” applicable voluntary standards or more stringent than the voluntary standards if the Commission concludes that more stringent requirements would further reduce the risk of injury associated with the product. The Commission is issuing safety standards for full-size and non-full-size cribs that are substantially the same as voluntary standards developed by ASTM International (formerly known as the American Society for Testing and Materials). The standard for full-size cribs is substantially the same as a voluntary standard developed by ASTM, ASTM F 1169–10, *Standard Consumer Safety*

*Specification for Full-Size Baby Cribs*, but with two modifications that strengthen the standard. The standard for non-full-size cribs is substantially the same as ASTM F 406–10a, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*, but with four modifications that strengthen the standard.

*2. Section 104(c) of the CPSIA and the Proposed Rule*

The crib standards are different from standards for the other durable infant or toddler products that section 104 of the CPSIA directs the Commission to issue. Section 104(c)(1) of the CPSIA makes it a prohibited act under section 19(a)(1) of the Consumer Product Safety Act (“CPSA”) for any person to whom section 104(c) of the CPSIA applies to “manufacture, sell, contract to sell or resell, lease, sublet, offer, provide for use, or otherwise place in the stream of commerce a crib that is not in compliance with a standard promulgated under subsection (b) [of the CPSIA].” Section 104(c)(3) of the CPSIA defines “crib” as including new and used cribs, full-size and non-full-size cribs, portable cribs, and crib pens.

Section 104(c)(2) of the CPSIA states that the section applies to any person that:

- (A) manufactures, distributes in commerce, or contracts to sell cribs;
- (B) based on the person’s occupation, holds itself out as having knowledge or skill peculiar to cribs, including child care facilities and family child care homes;
- (C) is in the business of contracting to sell or resell, lease, sublet, or otherwise place cribs in the stream of commerce; or
- (D) owns or operates a place of public accommodation affecting commerce (as defined in section 4 of the Federal Fire Prevention and Control Act of 1974 (15 U.S.C. 2203) applied without regard to the phrase “not owned by the Federal Government”).

Section 104(c)(2) of the CPSIA.

Thus, the crib standards apply to owners and operators of child care facilities (including in-home child care) and places of public accommodation such as hotels and motels, as well as to manufacturers, distributors, and retailers of cribs. Other durable infant or toddler product standards issued under section 104 of the CPSIA apply to products manufactured or imported on or after the effective date of the standard. However, under section 104(c) of the CPSIA, once the standards are in effect, it will be unlawful for any of the entities identified in section 104(c)(2) of the CPSIA to sell, lease, or otherwise distribute or provide a crib for use that does not meet the new CPSC crib standards, regardless of the date on which the crib was manufactured.

In the *Federal Register* of July 23, 2010 (75 FR 43308), the Commission published a proposed rule that would establish standards for full-size and non-full-size cribs. The proposed rule would incorporate by reference the following ASTM standards with some modifications: ASTM F 1169-10, *Standard Consumer Safety Specification for Full-Size Baby Cribs*, and ASTM F 406-10, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*.

### *3. Previous Commission Crib Standards (16 CFR parts 1508 and 1509)*

The Commission first issued mandatory regulations for full-size cribs in 1973 (amended in 1982), which were codified at 16 CFR part 1508. In 1976, the Commission issued similar regulations for non-full-size cribs (also amended in 1982), which were codified at 16 CFR part 1509. The requirements of 16 CFR parts 1508 and 1509 have been included in ASTM F 1169-10 and F 406-10a, respectively. However, the recordkeeping requirements in the ASTM standards are expanded from the 3-year retention period that was required in 16 CFR parts 1508 and 1509 to a 6-year retention

period, which is consistent with the consumer registration provision in section 104(d) of the CPSIA.

Elsewhere in this issue of the *Federal Register*, we are revoking the CPSC regulations for full-size and non-full-size cribs at 16 CFR parts 1508 and 1509. The new crib standards in this final rule, which incorporate the applicable ASTM standards, include the requirements of 16 CFR parts 1508 and 1509. Revoking 16 CFR parts 1508 and 1509 will allow all the crib-related requirements to be together and will avoid confusion about which requirements apply to cribs.

The final rule also revises 16 CFR 1500.18(a)(13) and (14), which state that full-size cribs that do not comply with 16 CFR part 1508 and non-full-size cribs that do not comply with 16 CFR part 1509 are banned hazardous substances under the Federal Hazardous Substances Act (“FHSA”). The revision changes the references in 16 CFR 1500.18(a)(13) and (14) to refer to the CPSC’s new crib standards.

#### *4. Previous Commission Activities Concerning Cribs*

As detailed in the preamble to the proposed rule (75 FR at 43309), we have taken numerous regulatory and nonregulatory actions concerning crib hazards. In 1996, the Commission published an advance notice of proposed rulemaking (“ANPR”) under the FHSA to address the hazard of crib slat disengagement, 61 FR 65996 (Dec. 16, 1996). When the Commission proposed the new crib standards under section 104 of the CPSIA, it published a notice terminating the rulemaking it had begun with the 1996 ANPR because the slat disengagement hazard is addressed by the new standards that the Commission is issuing. 75 FR 43107 (July 23, 2010).

The Commission's Office of Compliance has been involved with numerous investigations and recalls of cribs. Since 2007, the CPSC has issued 46 recalls of more than 11 million cribs. All but seven of these recalls were for product defects that created a substantial product hazard, and not for violations of the federal crib regulations.

Other previous actions include: (1) an ANPR that the Commission published in the *Federal Register* on November 25, 2008 (73 FR 71570) in preparation for this rulemaking, which discussed options to address the hazards that CPSC staff had identified in the reported crib incidents and recalls; and (2) a public roundtable meeting concerning crib safety that CPSC staff held on April 22, 2009. Information about the crib roundtable and the presentations made by CPSC staff and others are on the Commission's website at <http://www.cpsc.gov/info/cribs/infantsleep.html>.

## **B. The Products and Their Market**

### *1. Definitions under the CPSIA and the Crib Standards*

The Commission's previous crib standards in 16 CFR 1508 and 1509 contained definitions of "full-size crib" and "non-full-size crib." According to 16 CFR parts 1508 and 1509, what principally distinguishes full-size cribs from non-full-size cribs are the interior dimensions of the crib. Also, according to these standards, a full-size crib is intended for use in the home, and a non-full-size crib is intended for use "in or around the home, for travel and other purposes." A full-size crib has interior dimensions of  $28 \pm \frac{5}{8}$  inches ( $71 \pm 1.6$  centimeters) in width by  $52 \frac{3}{8} \pm \frac{5}{8}$  inches ( $133 \pm 1.6$  centimeters) in length. A non-full-size crib may be either smaller or larger than these dimensions. Full-size and non-full-size cribs also differ in the height of the crib side or rail. Non-full-size cribs include oversized, specialty, undersized, and portable cribs. However, any products

with mesh/net/screen siding, non-rigidly constructed cribs, cradles, car beds, baby baskets, and bassinets are excluded from the non-full-size crib requirements of 16 CFR part 1509.

Essentially, these definitions are carried over to the new crib standards with some important differences due to section 104(c) of the CPSIA. Because section 104(c) of the CPSIA explicitly includes used cribs in the definition of “crib,” the definitions of full-size and non-full-size crib in the CPSC standards also include used cribs. The definition of “full-size crib” in part 1508 was limited to cribs “intended for use in the home.”

However, section 104(c) of the CPSIA explicitly includes full-size and non-full-size cribs in child care facilities (including family child care homes) and cribs in places of public accommodation affecting commerce. The CPSIA defines a “place of public accommodation affecting commerce” with reference to the Federal Fire Prevention and Control Act of 1974 (but without the phrase that excludes establishments owned by the Federal Government). Thus, the CPSIA defines “places of public accommodation,” as:

any inn, hotel, or other establishment ... that provides lodging to transient guests, except that such term does not include an establishment treated as an apartment building for purposes of any State or local law or regulation or an establishment located within a building that contains not more than 5 rooms for rent or hire and that is actually occupied as a residence by the proprietor of such establishment.

15 U.S.C. 2203(7).

Therefore, the definitions of full-size and non-full-size crib in the CPSC standards include new and used cribs, cribs in child care facilities (including family child care homes), and cribs in places of public accommodation.

## *2. Full-Size Cribs*

A full-size crib has specific interior dimensions of  $28 \pm \frac{5}{8}$  inches ( $71 \pm 1.6$  centimeters) in width and  $52 \frac{3}{8} \pm \frac{5}{8}$  inches ( $133 \pm 1.6$  centimeters) in length and is designed to provide sleeping accommodations for an infant.

CPSC staff estimates that there are currently 68 manufacturers or importers supplying full-size cribs to the U.S. market. Ten of these firms are domestic importers (15 percent); 42 are domestic manufacturers (62 percent); 7 are foreign manufacturers (10 percent); and 2 are foreign importers (3 percent). Insufficient information was available about the remaining firms to categorize them.

Based on information from a 2005 survey conducted by the American Baby Group, CPSC staff estimates annual sales of new cribs to be about 2.4 million, of which approximately 2.1 million are full-size cribs. (This number could be an underestimate if new mothers buy more than one crib.) CPSC staff estimates that there are currently approximately 591 models of full-size cribs compared to approximately 81 models of non-full-size cribs. Thus, approximately 88 percent of crib models are full-size cribs.

### *3. Non-Full-Size Cribs*

A non-full-size crib may be either smaller or larger than a full-size crib, or shaped differently than the usual rectangular crib. The category of non-full-size cribs includes oversized, specialty, undersized, and portable cribs, but does not include any product with mesh/net/screen siding, non-rigidly constructed cribs, cradles, car beds, baby baskets, or bassinets. The CPSC standard for non-full-size cribs does not apply to play yards, which are mesh or fabric-sided products.

CPSC staff estimates that there currently are at least 17 manufacturers or importers supplying non-full-size cribs to the U.S. market. Five of these firms are

domestic importers and 10 are domestic manufacturers. Insufficient information is available to determine whether the remaining firms are manufacturers or importers. CPSC staff estimates that there are approximately 2.4 million cribs sold to households annually. Of these, approximately 293,000 are non-full-size cribs.

*4. Retailers, Child Care Facilities, and Places of Public Accommodation*

CPSC staff is unable to estimate the number of retailers that may sell or provide cribs. We can estimate, however, that there are approximately 24,985 retail firms in the United States (at least 5,292 of which sell used products). The number of retailers that sell or provide cribs would be some subset of that number.

CPSC staff estimates that there are approximately 59,555 firms supplying child care services. We received comments from child care organizations about the cribs they use. According to these comments, the average child care center has between 4 and 45 cribs, so, assuming that the number of firms supplying child care services is the same as child care centers discussed in the comments, child care centers could have roughly 774,180 cribs total. We estimate that there are approximately 43,303 firms providing public accommodation. We did not receive any comments from such firms and cannot estimate how many cribs may be in use in places of public accommodation.

**C. Incident Data**

The preamble to the proposed rule (74 FR at 43310 through 43311) provided detailed information concerning incident data based on information from the CPSC's Early Warning System ("EWS"), a pilot project to monitor incident reports related to cribs and other infant sleep products. We summarize important aspects of the incident data in this section, but refer interested parties to the preamble to the proposed rule for

more complete details. Data from EWS is not meant to provide an estimate of all crib-related incidents that have occurred during any particular time period. We used the EWS data for this rulemaking because, due to the larger number of follow-up investigations assigned from EWS incident reports, the EWS incidents provided the best illustration of the hazard patterns associated with incidents involving cribs.

Between November 1, 2007 and April 11, 2010, the Commission received reports through EWS of 3,584 incidents related to cribs. The year of the incident associated with these reports ranged from 1986 through 2010. However, very few crib-related incidents that occurred before 2007 are reflected in the EWS.

Of the 3,584 incidents reported through the EWS, CPSC staff identified 2,395 incidents as clearly involving full-size cribs; 64 incidents as clearly involving non-full-size cribs; and 1,125 incidents as lacking sufficient data for CPSC staff to determine whether they involved full-size or non-full-size cribs. The prevalent hazards reported in these incidents are common to all cribs, regardless of size. Given the predominance of incident reports identified as involving full-size cribs, the 1,125 incidents in which the size of the crib could not be determined are grouped with the category of full-size cribs.

*1. Full-Size Cribs (Includes Cribs of Undetermined Size)*

This section discusses incident data in the 3,520 reports from the EWS involving full-size cribs and cribs of an undetermined size. Of these 3,520 incident reports, there were 147 fatalities, 1,675 nonfatal injuries, and 1,698 non-injury incidents. (The non-injury incidents range from those that potentially could have resulted in injuries or fatalities to general complaints or comments from consumers). Reporting is ongoing; the

number of reported fatalities, nonfatal injuries, and non-injury incidents will change in the future.

*a. Fatalities*

Between November 1, 2007 and April 11, 2010, a total of 147 fatalities associated with full-size (and undetermined size) cribs were reported to the Commission. A majority of the deaths (107 out of 147, or almost 73 percent) were not related to any structural failure or design flaw of the crib. There were 35 fatalities attributable to structural problems of the crib. Nearly all (34 of the 35) were due to head/neck/body entrapments. More than half of these (18 out of 35) were related to drop-side failures. Almost all of the crib failures—whether they occurred due to detachments, disengagements, or breakages—created openings in which the infant became entrapped.

*b. Nonfatal Injuries*

Of the 3,520 incident reports involving full-size (and undetermined size) cribs, 1,675 reported a crib-related injury. The vast majority (97 percent) of these injuries were not serious enough to require hospitalization. Approximately half of those that did require hospitalization involved limb or skull fractures and other head injuries resulting from falls from cribs. Most of the remaining injuries resulted from children getting their limbs caught between crib slats, falling inside the crib and hitting the crib structure, or getting stuck in gaps created by structural failures.

*c. Hazard Pattern Identification*

CPSC staff considered all 3,520 incidents (includes fatalities, nonfatalities, and non-injury incidents) involving full-size cribs (including cribs of undetermined size) to identify hazard patterns related to these incidents. CPSC staff grouped these incidents

into four broad categories: (1) Product-related; (2) non-product-related; (3) recall-related; and (4) miscellaneous. More detail is provided in the Epidemiology staff's memorandum that was part of the CPSC staff's briefing package for the proposed rule, available on the CPSC website at: <http://www.cpsc.gov/library/foia/foia10/brief/104cribs.pdf>.

Approximately 82 percent of the 3,520 incidents reported some sort of failure or defect in the product itself. In order of frequency, the hazard patterns reported included:

- falls from cribs (approximately 23 percent of the 3,520 incidents);
- crib drop-side-related problems (approximately 22 percent of the incidents and about 12 percent of all reported fatalities);
- infants getting their limbs caught between the crib slats (approximately 12 percent of the incidents);
- wood-related issues, such as slat breakages and detachments (approximately 12 percent of the incidents);
- mattress support-related problems (approximately 5 percent of the incidents);
- mattress fit problems (approximately 3 percent of the incidents);
- paint-related issues (approximately 2 percent of the EWS incidents); and
- miscellaneous problems with the crib structure (approximately 3 percent of incidents), including non-drop-side or drop gate failures, sharp catch-points, stability and/or other structural issues.

## *2. Non-Full-Size Cribs*

This category includes portable cribs and other cribs that are either smaller or larger than the dimensions specified for full-size cribs. For its review of incident data, CPSC staff included in the category of non-full-size cribs only those cribs that it could

positively identify as non-full-size cribs. CPSC staff is aware of 64 incidents related to non-full-size cribs that have been reported between November 1, 2007 and April 11, 2010. Among these incidents, there were 6 fatalities, 28 injuries, and 30 non-injury incidents. Because reporting is ongoing, the number of reported fatalities, nonfatal injuries, and non-injury incidents presented here may change in the future.

*a. Fatalities*

Of the six fatalities, three were attributed to the presence of a cushion/pillow in the sleep area. One fatality was due to the prone positioning of the infant on the sleep surface. One fatality resulted from the infant getting entrapped in a gap opened up by loose/missing screws. Very little information was available on the circumstances of the last fatality.

*b. Nonfatal Injuries*

Among the 28 nonfatal injuries reported, only 2 required any hospitalization. Most of the remaining injuries, which include fractures, bruises, and lacerations, resulted from children falling and hitting the crib structure while in the crib, falling or climbing out of the crib, and children getting their limbs caught in the crib slats.

*c. Hazard Pattern Identification*

CPSC staff considered all 64 incidents (including fatalities, nonfatalities, and non-injury incidents) involving non-full-size cribs to identify hazard patterns related to these incidents. The hazard patterns are similar to those among full-size cribs. In 72 percent of the incidents, product-related issues were reported. These primarily involved falls from cribs, limbs becoming caught between slats, issues related to drop-sides and non-drop-sides (such as detachments and operation/hardware issues), and wood-related issues

(including three slat detachments). This category includes one fatality, which was related to non-drop-side hardware.

#### **D. Voluntary and International Standards**

As discussed in the preamble to the proposed rule (75 FR at 43311 through 43312), CPSC staff reviewed requirements of existing voluntary and international standards related to cribs. The primary such standards currently in effect are the ASTM standards for full-size and non-full-size cribs, a Canadian standard, and a European standard. Underwriters Laboratories, Inc. (“UL”) has a crib standard, UL 2275. However, the UL standard was not followed by crib manufacturers and is no longer an active standard.

##### *1. The ASTM Standards*

ASTM first published its voluntary standard for full-size cribs, ASTM F 1169, *Standard Specification for Full-Size Baby Crib*, in 1988, and has revised it periodically since then. In 2009, ASTM revised the standard significantly, including a limitation on movable sides that effectively eliminates the traditional drop-side design in which the front side of the crib can be raised and lowered. On June 1, 2010, ASTM approved the current version of its full-size crib standard with a slight change to the name, ASTM F 1169-10, *Standard Consumer Safety Specification for Full-Size Baby Cribs*.

In 1997, ASTM first published a standard for non-full-size cribs, ASTM F 1822, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs*. In June 2002, in order to group products with similar uses, ASTM combined its non-full-size crib standard, ASTM F 1822-97, with its play yard standard (F 406-99, *Standard Consumer Safety Specification for Play Yards*) to create ASTM F 406-02, *Standard Consumer*

*Safety Specification for Non-Full-Size Baby Cribs/Play Yards.* ASTM revised ASTM F 406 several times subsequently. On June 1, 2010, ASTM approved the version of its non-full-size crib standard, ASTM F 406-10, upon which the CPSC's proposed standard was based. After we published our proposed rule in the *Federal Register* on July 23, 2010, ASTM revised its non-full-size crib standard again and approved ASTM F 406-10a on October 15, 2010. ASTM F 406-10a includes many of the changes which the proposed rule would have made to ASTM F 406-10, rearranges the order of some provisions, and contains some other editorial changes. Consequently, the final rule's non-full-size cribs standard is based on ASTM F 406-10a. We discuss differences between the proposed rule and ASTM F 406-10a in section F of this preamble.

## *2. International Standards*

Several performance requirements in the crib standards derive from, or are similar to, requirements in Health Canada's crib standard, SOR/86-969, and the European standard, EN 716. These include the cyclic side (shake) test and the mattress support system vertical impact test from the Canadian standard, and the slat/spindle strength test from EN 716 requirements. (For more details on how the crib standards are based upon or are more stringent than certain international standards, we refer interested parties to the preamble to the proposed rule (75 FR at 43312).)

## **E. Response to Comments on the Proposed Rule**

In the *Federal Register* of July 23, 2010 (75 FR 43308), the Commission published a proposed rule that would establish standards for full-size and non-full-size cribs. We received over 50 comments. These included comments from child care organizations, the Juvenile Products Manufacturers Association ("JPMA"), public

interest groups, and individual consumers. The comments and the CPSC's responses are discussed below in section E.1 through E.31 of this document. To make it easier to identify comments and our responses, the word "Comment," in parentheses, will appear before the comment's description, and the word "Response," in parentheses, will appear before our response. We also have numbered each comment to help distinguish between different comments. The number assigned to each comment is purely for organizational purposes and does not signify the comment's value, importance, or the order in which it was received.

### **1. Misplaced Focus on Drop-Sides**

*(Comment 1)* - One commenter stated that focusing on drop-side cribs was misplaced. Rather, she suggested, new crib standards should focus on the structure and hardware of cribs.

*(Response 1)* - The CPSC agrees that the safety of the drop-side is just one issue and other issues, especially cribs' structural integrity and hardware, are crucial to crib safety. Although the prohibition of traditional drop-side cribs has received a great deal of attention, the CPSC's new crib standards have numerous provisions, particularly concerning crib hardware, that will improve the safety of cribs. See the discussion of the standards' requirements in section G of this preamble.

### **2. Applicability of Standards to Cribs in Child Care Centers**

*(Comment 2)* - Several commenters associated with child care organizations or child care centers said that the crib standards should not apply to cribs in child care centers. They gave reasons such as: caregivers are present at all times when babies are in cribs at child care centers; cribs in child care centers are specialty cribs that do not have

the same safety issues as home cribs; and state licensing and safety requirements safeguard babies in cribs in child care centers. Some commenters stated that the crib standards are unique because, unlike other standards that hold product manufacturers or distributors responsible, the crib standards hold child care centers (which are consumers buying the cribs from these manufacturers and distributors) responsible.

*(Response 2)* - Section 104(c)(1) of the CPSIA states that it “shall be a violation of section 19(a)(1) of the Consumer Product Safety Act for any person to which this subsection applies to manufacture, sell, contract to sell or resell, lease, sublet, offer, provide for use, or otherwise place in the stream of commerce a crib that is not in compliance with a standard promulgated under” section 104(b) of the CPSIA. Section 104(c)(2) of the CPSIA identifies various entities that are subject to section 104(c) of the CPSIA, and it expressly mentions persons who “based on the person’s occupation, holds itself out as having knowledge or skill peculiar to cribs, including child care facilities and family child care homes.” The fact that a child care center may be subject to state regulation and licensing, or that caregivers at such facilities may be required to supervise babies in cribs, does not alter the applicability of section 104(c) of the CPSIA to child care facilities and family child care homes.

As for the commenter’s claim that cribs in child care centers are different from those used in homes, the information that the CPSC has indicates that cribs used in child care centers are often substantially the same as cribs used in homes. CPSC staff has reports of incidents involving cribs in child care centers; the hazard scenarios associated with these incidents are the same as those for incidents that occur in homes.

### **3. Waiving Requirements for Child Care Centers**

*(Comment 3)* - One commenter suggested waiving any requirement to replace cribs in child care and Head Start programs that comply with state licensing or national accreditation requirements, which mandate that all sleeping infants be within sight or sound of a caregiver at all times; and another commenter suggested a waiver of enforcement for cribs that are used in child care programs that comply with state licensing standards that require sleeping infants to be within sight and sound of a caregiver at all times. Some commenters asked that older cribs in child care centers be exempted from the rule (or allowed an enforcement waiver), as long as the cribs had not been recalled, thus shifting the burden of replacement from child care centers to manufacturers.

*(Response 3)* - We do not have the authority to exempt or waive requirements for cribs in child care centers or to allow older cribs to be replaced through recalls alone. As discussed in response to comments concerning the effective date at section G.10 of this document, we do have discretion to provide additional time for child care centers to come into compliance with the standards.

#### **4. Crib-Related Incidents in Child Care Centers**

*(Comment 4)* - One commenter recognized that there have been injuries and fatalities associated with drop-side cribs, but stated that banning drop-side cribs in child care settings would not address this threat to young children. The commenter stated that, because of the safety checks on cribs and monitoring of sleeping children in child care centers, issues with drop-side cribs do not occur in such programs as they might in other settings.

*(Response 4)* - As stated in our response to comment 2 in section E.2 of this document, section 104(c) of the CPSIA expressly mentions child care facilities and family child care homes as entities subject to the crib standards. The statute does not authorize us to consider safety checks, or the monitoring of sleeping children in child care facilities, or the rate at which safety issues might arise, or to exempt child care facilities for such reasons.

Additionally, our review of the incident data reported to the CPSC from November 1, 2007 through April 11, 2010, shows that at least two reports of incidents in child care facilities were received. Each report involved the structural failure of multiple drop-side cribs. Although no injuries were reported in these incidents, they presented the potential for serious injury or fatality.

*(Comment 5)* - Some comments noted that sleeping infants are not left unsupervised in drop-side or other types of cribs in child care centers and noted further that children in child care centers are in cribs only when they are sleeping.

*(Response 5)* - The CPSC has received at least 11 reports of injuries involving cribs in child care facilities, in which the injured infant was treated in a hospital emergency department. These injuries, usually due to a fall from a crib or an impact with the crib, were sustained while the infant was being taken care of at a child care facility. Clearly, the infants were not sleeping if the injuries were due to infants falling or impacting the crib.

## **5. Commercial vs. Noncommercial Cribs**

*(Comment 6)* - Several commenters suggested that the crib standards should distinguish between “commercial” and “noncommercial” cribs. One commenter asked if

there should be different crib standards for child care providers or other nonfamily situations, where cribs sustain more use, similar to the distinction between home and public playground equipment (the CPSC has separate guidelines for home and public playground equipment).

*(Response 6)* - Section 104 of the CPSIA does not make a distinction between commercial and noncommercial cribs but, rather, requires that all cribs within the scope of section 104(c) of the CPSIA—which explicitly includes cribs provided for use in child care centers and places of public accommodation—meet the crib standards promulgated by the Commission under section 104(b) of the CPSIA. Although ASTM has a voluntary standard applicable to “commercial cribs” (ASTM F 2710-08), section 104 of the CPSIA does not make such a delineation. Furthermore, ASTM’s commercial crib standard requires commercial cribs to comply with either ASTM F 406 or ASTM F 1169, and this final rule adopts, with some modifications, both ASTM F 406 and ASTM F 1169. In its crib rulemaking, the Commission is following the specific statutory direction and definitions in the CPSIA. In contrast, when developing guidelines for public and home playgrounds, the Commission was not responding to a statutory mandate, and thus, it had the discretion to distinguish between public and home playground equipment.

#### **6. Mesh/Nonrigid Full-Size Cribs**

*(Comment 7)* - One commenter suggested that the full-size crib standard should apply to rigid cribs only, and not be applicable to full-size cribs that have sides or ends made from mesh, fabric, or another nonrigid material. The commenter referred to the scope of the proposed non-full-size crib standard, which is limited to rigid products only.

*(Response 7)* - We are not aware of any full-size mesh/fabric cribs currently being sold. In contrast, there are numerous non-full-size mesh/fabric cribs (i.e., play yards) currently on the market. The CPSC agrees that for non-full-size products, different requirements for rigid versus mesh products are necessary because the construction differences may make it impossible to test both the same way. The ASTM standard for non-full-size cribs includes both rigid and mesh/fabric non-full-size cribs. Although there are requirements in the ASTM standard specifically intended for mesh/fabric products, the scope of the CPSC's standard for non-full-size cribs is limited to rigid products because section 104 of the CPSIA explicitly lists cribs and play yards as separate categories of products. Therefore, we plan to develop a separate standard for mesh/fabric non-full-size cribs (i.e., play yards). Currently, there is no voluntary standard or proposed regulation specifically for mesh/fabric full-size cribs. However, the CPSC's standard for full-size cribs contains general, labeling, and some performance requirements that would be applicable to any full-size crib, whether it has rigid or mesh/fabric sides. Thus, excluding these products from the scope of the CPSC's full-size crib standard, as suggested by the commenter, would leave such cribs unregulated. Absent a voluntary standard that covers mesh/fabric full-size cribs, it is not advisable to exclude these products from the scope of a full-size crib regulation.

## **7. Play Yards**

*(Comment 8)* - Some commenters were concerned that the rule might result in child care centers or consumers using play yards instead of cribs. These commenters implied that play yards are not as safe as cribs for sleeping infants. One commenter, who is child care provider, stated that she uses only play yards, not cribs.

*(Response 8)* - The final rule does not address any safety aspects of play yards. Play yards are a separate product category under section 104 of the CPSIA, and we intend to develop a separate standard for play yards in the future.

*(Comment 9)* - Two commenters expressed concern about using play yards as an alternative to cribs in day care centers as a way of mitigating costs to child care providers. Both felt that this alternative might be perceived as advocating the use of play yards, which they felt would decrease the safety and quality of care. Some commenters noted that play yards are not an option for some child care centers due to state licensing laws.

*(Response 9)* - Although the CPSC does not advocate the use of play yards instead of cribs in child care environments, issues regarding the possible use of play yards or other products (in place of cribs) and state laws are outside the scope of this rulemaking. This final rule establishes standards for full-size and non-full-size cribs.

#### **8. Economic Impact of CPSC's Crib Standards on Child Care Centers**

*(Comment 10)* - Several commenters expressed concern that the proposed rule, if finalized, would place a large financial burden on child care centers, particularly given the tight budgets and lethargic economy. One commenter estimated that the total one-time cost to day care centers to replace their cribs could be as much as \$600 million, with an additional \$2.5 million required for disassembly, disposal, and assembly. The same commenter noted that the preamble to the proposed rule concluded that "the proposed changes to the voluntary standard should not significantly affect replacement costs" (75 FR at 43319). Generally, commenters objected to purchasing new cribs to replace

recently-purchased cribs that had no safety issues. Several commenters were concerned that some child care centers might be driven out of business.

*(Response 10)* - We recognize the potentially large impact the crib standards could have on child care providers. The Regulatory Flexibility Act discussion in the preamble to the proposed rule invited comment on the market for cribs and the amount of time manufacturers would need to meet current market demand and additional demand created by child care centers and other places where cribs are provided for use (75 FR at 43316). It also discussed the possible impact on small child care centers and stated that the impact “could be significant on some small child care centers if they had to replace their cribs all at once” and that some might decide to replace their non-full-size cribs with play yards (Id. at 43318). The initial regulatory flexibility analysis in the briefing package for the proposed rule assumed that most, if not all, child care centers use smaller, non-full-size cribs; thus, staff did not expect a significant impact associated with full-size cribs. (See Tabs F and G of the staff’s briefing package on the proposed rule at: <http://www.cpsc.gov/library/foia/foia10/brief/104cribs.pdf>). In the initial regulatory flexibility analyses, all of the effects on child care centers were considered in the analysis for non-full-size cribs.

We have modified our Regulatory Flexibility Act discussion in the final rule. CPSC staff’s analysis using data provided by the Early Care and Education Consortium (ECEC), the National Association for Family Child Care (NAFCC), and the National Head Start Association (NHSA), yields one-time replacement costs of approximately \$387 million. The discussion also has been modified to take into account specifically the

possibility that child care centers might go out of business, as well as the impact of the final rule on families using child care.

*(Comment 11)* - Several commenters expressed concern about the ability of child care providers to pass on costs to their clients to reduce the economic impact of the final rule. These commenters stated that they felt the analysis in the preamble to the proposal did not appreciate child care centers' limited ability to pass on such costs. The commenters noted that most of their clients are struggling already to pay for child care. (The price range for child care cited by one commenter was from \$4,550 to more than \$18,000 per year.) The commenters added that most child care centers only have a few customers, so their ability to raise large sums of money by increasing the cost to clients to defray the cost of replacement cribs is limited.

*(Response 11)* - The Regulatory Flexibility Act discussion in the preamble to the proposed rule did not suggest that all cost increases associated with the proposed rule would be passed on to consumers, only that some portion of those costs might be passed on, thereby mitigating the impact of the proposed rule on small child care centers (see 75 FR at 43318). We recognize that the economic impact on any given entity may vary, depending on a variety of factors, such as the size of the affected entity, the presence or absence of competitors that may affect an entity's ability to raise prices or pass along costs to its customers, and the types of cribs purchased and an affected entity's ability to comply with the standards.

*(Comment 12)* - One commenter stated that, despite the high quality of the cribs used at its child care center and a lack of incidents there, the child care center had been informed that its cribs do not meet the proposed standard. The commenter expressed

concern that “the standards could be eliminating a company that produces extremely high quality materials and is very safety conscious.”

*(Response 12)* - The final rule may have the effect of eliminating particular crib models from the marketplace. However, these crib models likely will be replaced by modified versions that comply with the new standards. The final rule is unlikely to drive many manufacturers out of business, particularly those with otherwise high quality cribs that may require only minimal design modifications to come into compliance with the new standards. This is especially the case with manufacturers that supply many products other than just cribs to the market, including the company mentioned in the comment.

#### **9. Fixing or Retrofitting Cribs**

*(Comment 13)* - Three commenters (all of whom were child care providers) requested that the CPSC provide methods of checking whether their current cribs would meet the new standards. They also requested that the final rule include descriptions of how to fix cribs that fail a particular requirement (i.e., retrofit), as a way to limit the number of new cribs that must be purchased. These comments mentioned retrofits to handle drop-side cribs in particular.

*(Response 13)* – Section 104(c) of the CPSIA requires child care centers to provide cribs that comply with the new crib standards once they are in effect. The standards not only prohibit traditional drop-sides, but they also have complex requirements, such as those for hardware, that make it difficult to determine whether an existing crib would meet the new standards without testing that individual crib. Because the crib would be destroyed in the process of testing, it is impossible to test each crib. Therefore, we cannot provide methods to check existing cribs for compliance with the

CPSC's new crib standards. We also note that retrofits that would be appropriate for a recall might not be sufficient to meet the requirements of the new standards. For example, manufacturers have offered immobilizers in the past to address drop-side hazards on recalled cribs. This retrofit would not be sufficient to meet the crib standards. An immobilizer merely covers up part of the drop-side hardware and makes the drop-side unusable while in place, but it would not prevent a user from removing the retrofit and using the drop-side again.

#### **10. Effective Date/Enforcement Policy**

*(Comment 14)* - Most commenters supported the proposed six-month effective date for manufacturers and distributors of cribs, except one commenter requested (without providing any explanation or support) one to two years for manufacturers and distributors of non-full-size cribs. Many commenters, however, requested a longer effective date for child care centers to allow them to spread the costs of compliance over a longer period of time and to ensure that there are a sufficient number of compliant cribs available for purchase. Most of these commenters suggested an additional six months for cribs in child care centers, and two commenters suggested a five-year effective date for child care centers.

*(Response 14)* - We recognize that complying with the new crib standards may place a significant financial burden on child care centers. Nevertheless, section 104(c) of the CPSIA requires that child care centers provide cribs for use that meet the CPSC's new crib standards when these standards are in effect. The Commission recognizes that child care facilities face unique circumstances. Collectively, child care centers purchase and provide for use hundreds of thousands of cribs. Having a sufficient number of cribs

is essential to their business because, if they provide care for infants, they cannot operate without providing cribs for their customers' use.

Based on a 2005 U.S. Department of Education's National Household Education Surveys Program ("NHES") Early Childhood Program Survey, approximately 774,000 children under the age of one year old are in nonparental, nonrelative child care arrangements each week. We understand from commenters that the typical life cycle of a crib used in a child care center is 10 years. Thus, we estimate that, in any given year, child care providers replace approximately 77,000 cribs. Assuming that one crib must be provided for each child under the age of one, at least 700,000 cribs—more than the annual average—would be needed to replace noncompliant cribs when the new standards take effect. This demand would be added to the demand of private households for new compliant cribs.

The Commission has the discretion to set the effective date for the crib standards, and could set an effective date longer than six months for all entities that are subject to the standards, or could provide a longer period just for child care centers to comply with the new crib standards. Balancing all of the concerns expressed by the commenters, the final rule provides an additional 6 months for child care facilities to comply with the new standards.

*(Comment 15)* - One commenter suggested that we establish an enforcement policy that would allow "a practical phased effective date for hospitality and commercial facilities" (the latter being interpreted by the commenter as including child care providers) and distinguish between commercial- and noncommercial-use products.

*(Response 15)* - Section 104(c) of the CPSIA does not distinguish between commercial and noncommercial cribs and does require cribs in child care centers and places of public accommodation to comply with the new crib regulations. As discussed in the previous response, the Commission has discretion to set effective and compliance dates for the new standards.

Although the Commission received numerous comments from child care centers concerning their difficulties with meeting the new crib standards within six months, we did not receive any comments from hotels or similar places of public accommodation indicating the need for additional time to obtain complying cribs for such establishments. We did receive one comment from JPMA requesting additional time for “hospitality and commercial facilities,” noting that the need for these entities to “dispose of their inventories of non-compliant product and repurchase all new replacement products ... will place a tremendous financial burden on those facilities, requiring an enormous capital investment as a result of the wholesale changes to inventory.” Although child care commenters provided detailed information about the number of cribs in child care centers, the normal rate of replacement, and the anticipated costs of complying with the new crib standards, we did not receive such information concerning places of public accommodation.

#### **11. Effect on Places of Public Accommodation**

*(Comment 16)* - Two commenters, neither of which were places of public accommodation nor did they represent places of public accommodation, expressed concern about the potential cost impact on places of public accommodation.

*(Response 16)* - The CPSC believes that while some providers of public accommodation may provide a few cribs for use by customers, the number of non-full-size cribs at any one establishment is likely to be low. Firms may opt to reduce the impact of the rule by ceasing to provide cribs to their customers, not replacing all of their cribs, or providing play yards instead. Therefore, it is unlikely that the crib standards will have a significant impact on a substantial number of firms providing public accommodation.

## **12. Expiration Date/Definition of Useful Life of Crib**

*(Comment 17)* - One commenter asked whether cribs should have an expiration date, given that many of the identified hazards appear to result from prolonged use. The same commenter asked how one would define the useful life of a crib. For example, would it be defined in terms of the product's age in years, or, how often it had been used? The commenter also asked how the disassembly and reassembly of a crib would be considered, and what effect this would have on the crib's components and hardware.

*(Response 17)* - It would be extremely difficult to include a definition of useful life or to require that manufacturers provide an expiration date for cribs. As recognized by the commenter, the condition of a crib, including the security of components and hardware, can be affected by use. Moreover, each family uses a crib differently, depending on the activity level of each child, the length of time each child uses the crib, and the frequency of disassembling and reassembling the crib. Manufacturing differences and variations in materials among cribs, also might affect a crib's useful life. Thus, even keeping the use conditions identical, two different cribs likely will show wear and tear at varied rates.

### **13. Crib Mattress Standards/Regulations**

*(Comment 18)* - Some commenters expressed satisfaction that ASTM has begun developing a separate safety standard for mattress fit, and they stated their expectation that the CPSC would mandate the voluntary ASTM standard when it is finalized. One comment, submitted on behalf of several organizations and individuals, expressed concern about health and environmental risks that the commenters believed could be associated with the use of certain flame retardants or other potentially harmful chemical agents in the manufacture of crib mattresses. It suggested that the CPSC “ensure that a standard or regulation for crib mattresses address both health and environmental risks that potential hazardous chemicals could pose to infants.”

*(Response 18)* - Although we already have regulations pertaining to the flammability of mattresses, mattress pads, and mattress sets (see 16 CFR parts 1632 and 1633), issues regarding flame retardants and other chemicals that may be applied to mattresses are beyond the scope of this rulemaking.

### **14. International Standards**

*(Comment 19)* - One commenter suggested that the CPSC use international standards, or the relevant parts of them, as a basis for our regulation. These include the relevant international standards or technical regulations, such as the Health Canada, EN (European Nation), or ISO (International Standards Organization) crib standards.

*(Response 19)* CPSC staff has reviewed, compared, and considered a variety of crib standards/regulations, including the three identified by the commenter. In addition, CPSC staff reviewed the Australian/New Zealand crib standard and three voluntary standards, one published by Underwriters Laboratories (which is no longer an active

standard), and the two ASTM standards. The CPSIA specifically requires the Commission to promulgate a safety standard that is substantially the same as, or more stringent than, any voluntary standards. The Commission chose the appropriate ASTM voluntary standards for cribs to be the basis for the CPSC's crib regulations.

CPSC staff's review of the international standards or regulations identified vast differences. Thus, assuming that the commenter sought internationally harmonized requirements, even if we were to adopt an international standard or regulation, the differences in the international standards and regulations would not have resulted in harmonization across multiple jurisdictions. The ASTM voluntary standard recently adopted one requirement (the slat/spindle strength requirement) that was based on a similar requirement in the EN standard and two requirements (the cycle test and the mattress support impact test) that are almost identical to ones found in the Health Canada regulation. Other requirements in the ASTM standards are equivalent to requirements in some of the other international regulations.

Regardless, section 104(b) of the CPSIA requires us to promulgate regulations that are substantially the same as voluntary standards or more stringent than such voluntary standards if we determine that the more stringent standards would further reduce the risk of injury associated with durable nursery products. Section 104(b) of the CPSIA does not mention international harmonization of standards. We believe that the ASTM standards, with the specified modifications, are the most encompassing and robust crib standards and are thus "more stringent" than the ASTM standards alone.

### **15. Concern about Continually Replacing Cribs**

*(Comment 20)* - Some commenters, consisting of child care centers, expressed concern that they would need to replace their stock of cribs every time that ASTM changes its full-size or non-full-size crib standards.

*(Response 20)* - Neither the CPSIA nor the CPSC's crib standards would require replacement of cribs whenever ASTM revises F 406 or F 1169. The CPSIA does require that all cribs that are manufactured, offered for sale, provided for use, or otherwise placed in the stream of commerce meet the crib standards issued by the CPSC. The CPSC's proposed crib standards reference ASTM F 406-10a and ASTM F 1169-10; however, the federal standards do not change automatically whenever ASTM revises its voluntary standards. Rather, to change the federal crib standards, we would need to engage in notice and comment rulemaking procedures and refer to a subsequent version of the ASTM standards.

## **16. Continued Use of Cribs by Consumers**

*(Comment 21)* - One commenter suggested that we include in an Enforcement Policy a clarification that consumers can continue to use cribs that conform to ASTM standards in effect in 2010.

*(Response 21)* - We intend to distribute information and education materials in connection with issuance of the crib standards and will consider such a clarification as part of those materials. Nothing in the CPSIA, or in the crib standards, requires consumers to replace their cribs with cribs that comply with the new crib standards. The CPSIA requires action by those who manufacture, sell, lease, or otherwise distribute cribs in commerce, and by child care centers and places of public accommodation.

## **17. Miscellaneous Clarifications about Use of Certain Cribs/Play Yards**

*(Comment 22)* - A few commenters asked for clarification or made incorrect interpretations of the proposed rule or the CPSIA. These comments mostly dealt with the requirements as they would apply to child care centers. One commenter asked if she would no longer be able to use wooden cribs or play yards. Another commenter incorrectly understood that consumers would be required to replace their cribs, and she objected to this.

*(Response 22)* - The CPSIA and the crib standards do not dictate the kind of sleeping environment—full-size crib, non-full-size crib, or play yard—that a child care center must provide. Further, the crib standards do not dictate the type of material from which a crib must be made (e.g., wooden, metal, or plastic). The CPSIA does require that any rigid crib, whatever it is made of, comply with either the full-size or non-full-size crib standard. Finally, nothing in the CPSIA, or in CPSC’s crib standards, would require consumers to replace their cribs with cribs that comply with the new crib standards.

### **18. Testing by Firewalled Labs**

*(Comment 23)* - Several consumer groups suggested that the Commission not accept any “firewalled labs” to do testing for compliance with the crib standards because cribs “should meet the highest safety standards.”

*(Response 23)* - Section 102(a)(2) of the CPSIA generally requires that manufacturers and private labelers of children’s products (such as cribs) that are subject to a children’s product safety rule submit samples of their products for testing by a third party for compliance to applicable children’s product safety rules. Section 102(f)(2)(D) of the CPSIA allows the Commission to accredit a third party conformity assessment body (often referred to as a “testing laboratory” or “lab”) that is owned, managed, or

controlled by a manufacturer or private labeler as a third party testing lab if it meets certain requirements. Such testing labs are known as “firewalled” labs. If a firewalled lab meets the necessary requirements, its testing should be equivalent to testing conducted by any other third party testing lab. Thus, section 102 of the CPSIA does not prohibit the use of firewalled labs.

### **19. Formaldehyde Standards for Wood Products Act**

*(Comment 24)* - One commenter stated that composite woods used in cribs should comply with the Formaldehyde Standards for Wood Products Act (P.L. No. 111-199) and that the CPSC should require that all cribs using composite wood be tested for compliance to these standards.

*(Response 24)* - The Formaldehyde Standards for Wood Products Act was enacted on July 7, 2010. It amends the Toxic Substances Control Act and establishes formaldehyde emission standards for hardwood, plywood, medium density fiberboard, and particle board that is sold, supplied, offered for sale, or manufactured in the United States. (The Act provides numerous exemptions from these standards.) The standards are to be administered by the U.S. Environmental Protection Agency (EPA). The law makes no specific mention of cribs. However, it appears that if cribs are made of the types of wood subject to this law, the formaldehyde emission standards would apply to them. If manufacturers have questions about the applicability of the emission standards to their cribs, they should contact the EPA.

### **20. Soft Bedding**

*(Comment 25)* - One commenter supported the proposed crib standards and suggested that the Commission also look into regulating soft infant bedding products, such as bumper pads.

*(Response 25)* – As noted in the staff’s briefing package that accompanied the proposed rule, extra bedding in cribs accounted for the majority of infant deaths in cribs or other sleeping products, but there are no performance requirements for cribs that can address this issue. (See page 12 of CPSC staff’s briefing package for the proposed rule at: <http://www.cpsc.gov/library/foia/foia10/brief/104cribs.pdf>.) Education and information may be a more appropriate way to address the hazards associated with extra bedding. For instance, the recently released CPSC video on safe sleeping, (<http://www.cpsc.gov/cpscpub/prerel/prhtml11/11021.html>), is an example of an educational tool designed to bring more awareness to new parents of the dangers of extra or soft bedding.

### ***21. Slat Strength Test Changes for Folding Crib Sides***

*(Comment 26)* - One commenter noted that the spindle/slat testing procedure does not consider testing crib sides that fold either for access to the occupant or for storage and transport and that, as written in the proposed standard, the test method does not specify testing procedures for such segmented sides. The commenter suggested adding the following language for the full-size and non-full-size crib standards: “For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately as described above.”

*(Response 26)* - CPSC staff worked in cooperation with the ASTM task group, which created the language suggested by the commenter, to address this issue. Although the defined testing requirements in the proposed rule would work adequately for a crib side with no moving segments, it would not define clearly testing procedures for segmented sides. The intent of the slat strength test is to verify that the crib slats can withstand 80 lbf. If a crib side includes a hinge or other folding mechanism, the force applied to the slat could be transferred to the hinge and unintentionally test the structural integrity of the hinge and/or hinge attachment. We have not received reports of any incidents regarding crib sides with hinges or other folding mechanisms. The final rule includes new provisions in both the full-size and non-full-size crib standards, based on the language provided by the commenter, to clarify the spindle/slat testing procedure for cribs with folding or movable sides.

## ***22. Definition of Folding vs. Movable Sides***

*(Comment 27)* - One commenter asked about the difference between movable sides and folding sides as defined in the voluntary full-size crib standard, ASTM F 1169-10.

*(Response 27)* - ASTM F 1169-10 defines a folding side as a side or part of a side that folds or pivots in order to provide easier access to an occupant. An example of this is a crib with a drop-gate design, where the top portion of one side folds over by use of a hinge or hinges. A movable side is also a side that is used to provide easier access to an occupant and is any design other than a folding side.

## ***23. Rocking Crib Test Procedure***

*(Comment 28)* - One commenter asked how we plan to apply the proposed crib standard to cribs that are built with rockers, a design that is not addressed explicitly by ASTM F 1169-10. The commenter noted that such a product could be a “super-sized” cradle or rocking bassinet, whose interior dimensions meet that of a full-size crib, or perhaps a glider-style crib. The commenter stated that it would make sense for the crib to be arrested during testing so that the crib does not rock, but the commenter felt that this was not clear in the proposed rule.

*(Response 28)* - We find that the current language in the standard is sufficient and clearly states that, for each dynamic test requirement, the crib must be mounted rigidly prohibiting or arresting any movement of the crib during all phases of the test procedure. Furthermore, it would be intuitive for test laboratories that a rocking crib must be secured to arrest any motion in the vertical or horizontal direction. Manufacturers and test labs have been manufacturing and testing non-full-size rocking cribs for some time now, and we are not aware of any clarity requested or needed for testing existing non-full-size rocking cribs or potentially newly-designed full-size rocking cribs.

#### ***24. ASTM Provision Concerning Retightening Screws and Bolts***

*(Comment 29)* - Numerous commenters supported the proposed rule’s exclusion of the provision in ASTM F 1169-10 concerning retightening of screws between tests, noting that it will enhance crib safety. One commenter, however, disagreed with exclusion of the hardware retightening provision. The commenter stated that the dynamic tests, namely the shake test, vertical mattress support impact test, and the crib side rail impact test are designed to simulate and accelerate the use and abuse of the crib. The commenter noted that, “absent test data to support a contrary position, tightening of

the screws is consistent with the ASTM requirements and CPSC's own historic test practices."

*(Response 29)* - We strongly disagree with the commenter opposing exclusion of the hardware retightening provision. It is true that the purpose of accelerated life cycle tests is to accelerate the degradation rate of a product under known use conditions. However, the accelerated tests that are required in both the full-size and non-full-size crib standards are not overly stringent. The combination of the shake test (to simulate a child standing and shaking the top of a side rail), the vertical mattress support impact test (child jumping), the crib side rail impact test (child climbing outside of rail), and the slat/spindle strength test (child and/or sibling falling against or kicking slats) comprise a laboratory simulation of a lifetime of use. The shake test parameters are based on a lifetime of use of only 18 months, or use by just one child. The majority of cribs are used for two and three children, and some are in use for 15 years or longer. Furthermore, the accelerated life cycle tests include test parameters for foreseeable use of the product. Foreseeable use includes a child shaking the side rails, jumping on the mattress, climbing on the outside of the side rails, or falling or kicking the crib slats.

As for the commenter's statement that CPSC staff has not had the time to evaluate the efficacy of not removing the retightening allowance, we disagree. First, we conducted initial tests to verify the effects of the vertical mattress support impact and crib side rail impact tests on fasteners loosened during the cyclic side shake test. We intentionally backed out fasteners one-quarter and one-half turn, chosen at random on three full-size and two non-full-size cribs, prior to mattress support and side impact testing. In summary, the side rail impact test severely affected fasteners that lost their

seated preload, approximately one-half turn and greater. Fasteners that were loosened less than one-half turn maintained sufficient preload to withstand the side impact test vibrations applied to the lower rail. If the fasteners that loosened after the crib side impact test had been retightened beforehand, a potentially dangerous condition, such as a hazardous gap created by loosened hardware, would have gone unnoticed.

Second, we recently had the opportunity to evaluate each proposed performance requirement by participating in the testing of a full-size crib according to the full-size crib standard. Test results showed that the forces exerted on the crib sides during the shake test are not significantly detrimental to loosening hardware. After completion of the shake test on the test crib, two fasteners were noted to have backed out, one about one-eighth of a turn, and one close to one-half a turn. Neither fastener backed out enough to be considered noncompliant with the test requirement. In addition, these two fasteners did not back off any further after the mattress support and crib side impact testing. However, after the crib side impact test, another fastener, a wing nut securing the mattress support, backed off several turns, creating about a three millimeter separation, which is noncompliant with the requirement. Therefore, the crib ultimately failed due to a primary component attached by a screw that separated more than one millimeter. It is important to note that the assembly envelope around the wing nuts was confined severely by the proximity of the mattress support frame to the side slats. This made it difficult to ensure that adequate torque was applied during crib assembly. Results such as these reemphasize the importance of not allowing retightening of fasteners during testing, because it is foreseeable that a consumer will have similar difficulty tightening a fastener in a confined space.

It is also important to note that ASTM F 1196-10 and F 406-10a include a new hardware and fasteners requirement, which requires that crib hardware include a locking device or method for impeding loosening. This will reduce further the need for the retightening allowance, especially with crib designs that utilize fasteners that are difficult to access.

In summary, we strongly disagree with the request to allow retightening of fasteners. The majority of crib side rail corners are attached with one screw. Loosening just one screw can result in subsequent detachment of the side rail corner, creating a hazardous gap. There have been at least 10 fatalities where loose screws have contributed to the death of a child. After drop-sides, loose screws are the second highest cause of fatalities associated with the structural integrity of cribs. It is important that fasteners remain secure during the useful life of the crib.

### ***25. Captive Hardware***

*(Comment 30)* - Some commenters suggested that the hardware used for assembly remain captive in the key structural components when a crib is disassembled to reduce the chance of losing the hardware and of owners subsequently substituting inappropriate hardware for the hardware that was provided originally with the crib.

*(Response 30)* - Captive hardware typically includes a threaded insert with a captive screw on the mating component. A few of the advantages of captive hardware include: prevention of lost hardware, accurate and repeatable assembly of primary structural components, and ease of assembly. Crib designs using captive hardware, especially for primary components, such as side rails, could minimize the chance of screws loosening, allowing components to detach and create an entrapment hazard. In

addition, captive hardware could: (1) make assembly of cribs easier; (2) minimize the chance of a consumer replacing a lost screw with an incorrect or improper substitute; and (3) reduce the chance of a consumer misassembling the crib.

Although, there appear to be many advantages to using captive hardware on cribs, there are several disadvantages as well. First, if a captive screw ever becomes damaged or is inadvertently bent or pulled from an external force while in the disassembled state, it may be difficult or impossible to reassemble the crib component with the damaged screw or to remove and reinstall a replacement captive screw. Second, requiring captive hardware to attach a mattress support could result in more complicated designs or extra hardware because one main component of a full-size crib, the mattress support, typically is designed to be installed in different positions (levels).

Although the advantages of using captive hardware may seem to outweigh the disadvantages, we conclude that it is premature to mandate the use of captive hardware. We encourage manufacturers and ASTM to investigate the use of captive hardware systems on cribs and note that some manufacturers already are employing or considering using such designs.

***26. Test Mattress for Non-Full-Size Crib Mattress Support Test***

*(Comment 31)* - One commenter expressed concern about the requirement for non-full-size cribs to conduct the mattress support testing (dynamic impact) with a specific test mattress for each product, as opposed to conducting this test with the mattress supplied with each crib. The commenter was concerned that testing with such a mattress may be less stringent than testing with the mattress supplied with the product. The commenter also was concerned that the provision could require test labs to have

multiple test mattresses to suit all different dimensions of non-full-size cribs. This, the commenter stated, could increase the time and costs of testing.

The commenter recommended using the mattress supplied with the product in the dynamic testing. Alternatively, the commenter suggested: (1) stating in the final rule that a test mattress be large enough to accommodate the impactor to be used in the test, provided the test mattress does not shift in any way during testing or (2) specifying a smaller test mattress that would accommodate all non-full-size cribs currently for sale in commerce, with such dimensions as 18" x 18" x 3."

*(Response 31)* - In some instances, it may be true that testing non-full-size cribs with a thicker test mattress may be less stringent than testing with the mattress supplied with the product. However, we feel it is more important to use a standard size test mattress for test repeatability between testing facilities. Crib mattresses, especially mattresses provided with non-full-size cribs, are typically entry-level price point mattresses. Foam and mattress stitch variability is inherently high throughout the mattress industry. Furthermore, the mattress thickness, foam density, and other mattress characteristics determine the amount of energy that is transferred to the mattress support system. If a standard test mattress is not required, it is foreseeable that the same non-full-size crib with a supplied one-inch mattress may pass at one test laboratory, but fail at another, due solely to the inherent variability in the mattress manufacturing process.

As for the commenter's concern regarding the potential delay in specifying and ordering a test mattress to correctly fit the non-full-size crib being tested, this issue could be addressed easily if the manufacturer includes a test mattress in the crib's bill of materials at the design stage. This will ensure that all crib components, including the test

mattress, are procured at the same time. Thereafter, the test mattress will be available for testing, when needed, eliminating any additional testing delays or increased costs by the test laboratories.

As for the commenter's concern regarding the use of a test mattress just large enough to accommodate the impactor used during the mattress impact test, in general, using any test mattress that is smaller than the interior surface area of the crib will be more stringent than using a mattress equivalent to the crib's interior surface area. A smaller test mattress will transfer more energy into the mattress support system. Specifically, using the 18 inches x 18 inches x 3 inches mattress pad as an example, the impact head, about 8 inches across, when positioned 2 inches from the sides in a corner will hit the test mattress such that it overlaps the midplane or geometric center of the test mattress. Therefore, the test mattress foam will sustain more damage than a larger mattress. Unless replaced for each test, it will soften, thereby transmitting more energy into the mattress support structure. CPSC staff believes that using an undersized mattress will mean less repeatability from lab to lab and different force distributions experienced on each crib.

Once a crib mattress standard is developed, which would diminish the variability currently inherent in the mattress manufacturing process, testing non-full-size cribs with their supplied mattresses may be more workable. However, for the present, we feel that it is more important to ensure repeatability between test laboratories by requiring the same vertical mattress impact test for both full-size and non-full-size cribs.

## **27. Replacement Mattresses in Non-Full-Size Cribs**

*(Comment 32)* - Several commenters argued for modifying the warning on non-full size cribs, which states, in part: “Use ONLY mattress/pad provided by manufacturer. . .” and instead use language that does not specify the manufacturer of the replacement mattress, because some manufacturers make mattresses for other manufacturers’ products. One commenter supported an immediate change in the language in the warning, and other commenters supported a language change only after a separate mattress standard has been developed.

*(Response 32)* - The non-full-size crib standard requires all non-full-size cribs to be sold with their own mattress. These comments only relate to a warning label about replacement mattresses, and do not suggest changing the requirement for the mattress supplied with the non-full-size crib. We agree that replacement mattresses made by manufacturers other than the supplier of the non-full-size crib can achieve a satisfactory fit, because there are many common sizes among non-full-size cribs. Furthermore, we agree that, without alternatives, consumers may resort to homemade bedding surfaces when they need to replace a mattress. Pads that are “designed for” a given crib will simulate all dimensions (edge contours, overall area, density, and thickness) of the original mattress supplied by the manufacturer. A mattress with the dimensions necessary for eliminating hazardous gaps in the crib can be manufactured satisfactorily by anyone, not just the original manufacturer. We believe it would be better to address this issue after a mattress standard has been created.

*(Comment 33)* - A commenter stated that, “If the CPSC mandates that consumers ‘use only the mattress/pad provided by the manufacturer’ then retailers will be inclined to stop offering alternative mattresses/pads.”

*(Response 33)* - The final rule does not mandate what mattress a consumer can use, and it does not prohibit the sale of replacement mattress pads. The standard simply requires a warning label on the product. The label mentioned by the commenter has been part of the ASTM standard for non-full-size cribs since 1997, and JPMA-certified non-full-size cribs have displayed that warning since that time. The commenter does not provide any data or evidence to support the contention that retailers will stop offering alternative mattresses/pads. Consequently, we will wait to revise this warning label until after a mattress standard has been created, as suggested by other commenters.

## **28. Misassembly**

*(Comment 34)* - Several commenters suggested that products should be designed so that the consumer-assembled parts cannot be misassembled. They suggested that all parts of a crib should fit only in the correct orientation, and that if misassembled, the crib would be unusable.

*(Response 33)* - This suggestion originates from reports of fatal incidents, wherein a crib side was installed upside-down. We have considered such a requirement for the standard, but it would be difficult to implement. Any part of a product can be misassembled, and there are also certain parts of cribs that can be safely used in any orientation. Manufacturers could resort to more preassembly of crib components to meet this commenter's suggestion, but due to the size of an assembled crib and its components, any preassembly would likely be very limited in nature and thus would not solve the problem.

The requirement to make a crib unusable when a part is misassembled is not feasible because consumer modifications and misassemblies could be clever and forceful.

Questions to consider include: Can the potential misassembly involve consumer use of hand tools and off-the-shelf fasteners? What if the misassembled part is redrilled to make it fit? How can a manufacturer make a part unusable if misassembled, when the test lab is allowed to ignore the manufacturer's instructions?

It would be difficult, perhaps impossible, to devise a reliable method for testing such a requirement. The testing permutations needed to prove the utility of some parts in all possible configurations would increase the number of tests that would have to be performed, because each part would have to be tested in every possible position. Although we agree that the principle of making parts oriented in only one direction is sound, the testing needed to prove the inability to use the part makes testing the requirement impractical. The requirement in the standard to clearly mark the manufacturer's recommended installation orientation addresses the problem and highlights the design principle for manufacturers.

### **29. Utility of Drop-Side Cribs**

*(Comment 35)* - One commenter claimed that drop-side cribs are necessary for some caregivers because some caregivers are shorter. The commenter also suggested that professional child care environments should be allowed to use drop-side cribs because infants are supervised constantly when they are in the crib, and the cribs are checked routinely for safety.

*(Response 35)* - Although we agree that people who are shorter in stature may have more difficulty when placing infants into cribs than people who are taller, the standard does not prevent crib designers from making cribs that have sides that lower in some manner to help access the crib interior. Cribs with a gate that swings downward on

a piano hinge commonly are available and meet the requirements of the standard. Other designs that raise and lower the side of the crib are possible. These alternative designs provide the same convenience as traditional drop-side cribs.

As for the commenter's argument regarding supervision of infants in professional care environments, we agree that professional child care environments generally have a higher level of supervision than the average residential child care environment.

However, cribs are designed with the idea that children can be left in them unsupervised.

With respect to routine safety checks, CPSC staff does not recommend relying on human behavior for safety, when a design change is available that can eliminate a hazard.

Within the field of prevention science, behavioral solutions are always the last choice when designing for safety, because humans are fallible.

### **30. Fall Hazards**

*(Comment 36)* - A few commenters expressed concern about hazards associated with falls from cribs. These commenters agreed that it is not appropriate to lower the age recommendation or increase the crib side heights. However, the commenters urged the Commission to research these issues and develop innovative solutions, including thorough public education efforts, to limit hazards when children climb out of cribs.

Another commenter recommended that the CPSC and ASTM consider setting a maximum crib height, as measured from the top rail to the floor.

*(Response 36)* - We acknowledge that injuries resulting from crib-related falls rank high in terms of the number of incidents. The new crib standards contain labeling requirements, but not any design or performance requirements, to address this hazard.

When discussing height, some distinctions must be made. The side height of a crib is the

height from the top of the mattress support (for full-size cribs) in its lowest position, to the lowest part of the top rail. This dimension has a minimum that is set by each crib standard. For instance, it is 26 inches for full-size cribs. This minimum height is required to help prevent children from climbing out of the crib. One also can measure the crib height, which is measured from the floor to the lowest part of the top rail. Neither the CPSC nor ASTM set a requirement for this measurement (which is the measurement to which the commenter refers).

Setting a maximum crib height will not reduce the number of incidents of children climbing and falling out of cribs (because that is dictated by the side height). Therefore, a maximum crib height will not prevent injuries. A maximum crib height could reduce, perhaps, the severity or number of injuries. Side height requirements for full-size cribs specify a minimum of 26 inches between the top of the mattress support in its lowest position, and the top of the lowest rail. Thus, even if the mattress support was on the floor, the minimum fall distance would be 26 inches, which still can result in an injury. No maximum crib height will eliminate injuries from falls, and setting an arbitrary number above 26 inches as a maximum height would be design restrictive.

Many non-drop-side cribs have lower overall heights than the average traditional drop-side crib. We took measurements of 48 drop-side cribs and 15 non-drop-side cribs and found the following:

<u>Crib Type</u>	<u>Crib Height</u>
Drop-side cribs	33” to 43”
Non-drop-Side cribs	32” to 39.75”

Based on this sample, non-drop-side crib heights do not appear to be higher, but are at, or below, traditional drop-side crib heights. A shorter crib height would require fewer construction materials and could result in lower crib weight (which could reduce associated shipping costs). Thus, crib manufacturers may be inclined to offer cribs with shorter heights. We believe that the availability of cribs with shorter heights may increase, because the clearance formerly needed under the crib for the operation of drop-sides no longer would be necessary.

### **31. Crib Side Heights**

*(Comment 37)* - A commenter claimed that crib manufacturers now are using the bare minimum side heights and that, when drop-sides were allowed, many manufacturers exceeded the minimum side height, thereby preventing some falls. The commenter did not include data to support this assertion that crib manufacturers are reducing the side height now that they are no longer making drop-side cribs.

*(Response 37)* - Measurements of various cribs taken by CPSC staff show that there are some drop-side cribs and some non-drop-side cribs that just meet the minimum side height requirement and there are some drop-side cribs and non-drop-side cribs that have greater-than-minimum side heights.

The minimum side height requirement in the crib standard was developed with an intended user in mind (a child under the height of 35 inches). Even so, there always will be a certain population of children who will be capable of climbing out of a crib, even cribs with a side height greater than what is required by the crib standards. If the overall average side height of cribs decreased to the minimum side height required in the standard, and inadvertently resulted in a higher frequency of children climbing out, CPSC

staff believes that the likelihood of serious injury is lessened by the reduction in the overall fall height due to shorter crib heights (based on the sample of cribs examined by CPSC staff).

## **F. Changes to Proposed Rule**

### *1. Full-Size Crib Standard*

The Commission proposed incorporating ASTM F 1169-10 with one modification: excluding the provision, section 6.12, that requires retightening of screws and bolts between the crib side latch test and the mattress support vertical impact test. Like the proposal, the final rule incorporates by reference ASTM F 1169-10 with the modification to exclude the hardware retightening provision. The final rule makes one additional modification to ASTM F 1169-10, modifying the spindle/slat testing provision in 7.7.1 of the ASTM standard in order to clarify how to test a crib with folding or movable sides. The final rule adds a sentence to the end of section 7.7.1 of ASTM F 1169-10, which states: “For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage, and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately.” This change responds to a comment that the CPSC received on the proposed rule (see section E of the preamble for discussion of the comment and further explanation of the need for this change). Also, ASTM recently voted to approve adding this language when it next revises ASTM F 1169.

### *2. Non-Full-Size Crib Standard*

The Commission proposed incorporating ASTM F 406-10 with several modifications to address non-full-size cribs. The proposed rule would make four

modifications and two editorial changes to ASTM F 406-10. Most proposed changes were intended to make the non-full-size crib standard more consistent with the full-size crib standard. The proposed modifications were: (1) replacing the mattress support performance requirement in ASTM F 406-10 with the requirement that is in the ASTM full-size crib standard; (2) changing the side impact test in ASTM F 406-10 to make it identical to the requirements in the ASTM full-size crib standard; (3) adding a requirement for movable side latches that is similar to a provision in previous versions of the ASTM F 406 standard; and (4) specifying the order for conducting structural tests, as in the full-size crib standard. The proposed editorial changes were: (1) excluding provisions in ASTM F 406-10 that cover only play yards; and (2) moving the recordkeeping provision from the appendix of ASTM F 406-10 to the general requirements section. *See* 75 FR 43308 (July 23, 2010).

The final rule incorporates ASTM F 406-10a by reference, with certain modifications. This subsequent version of the ASTM non-full-size crib standard, approved on October 15, 2010, and published in November 2010, includes most of the changes that were in the proposed rule. Specifically, ASTM F 406-10a contains the recordkeeping provision in the general requirements section (now in section 5.20); the mattress support impact performance requirement (now included in sections 6.14, and 8.7); proposed changes to the side impact test (now included in sections 6.16., and 8.9); the provision for movable side latch testing (now included in section 6.13.1); and the order of testing (now in section 6.8). Some provisions in ASTM F 406-10a are worded slightly differently than the language in the proposed rule. These differences in wording are editorial. The proposed modifications that are not adopted in ASTM F 406-10a are

those that excluded provisions specifically related to play yards. Thus, the final rule continues to exclude these play yard-specific provisions.

In addition to the differences between ASTM F 406-10 and F 406-10a discussed in the preceding paragraph, there are a few other differences between the two versions (which therefore result in differences between the CPSC's proposed non-full-size crib standard and the final standard). Most differences between the two versions are editorial; for example, the revised standard rearranges the order of some sections and makes minor wording changes to make the language more consistent with the full-size crib standard (ASTM F 1169-10). The CPSC has reviewed these changes and concludes that only one change is a substantive change that would reduce safety. ASTM F 406-10a adds the provision that was (and continues to be) in the ASTM standard for full-size cribs, which requires the retightening of screws and bolts between tests. The CPSC's final rule for non-full-size cribs excludes this provision, just as the CPSC's final rule for full-size cribs does.

The final rule for non-full-size cribs also adds language concerning testing of cribs with folding sides as in the final rule for full-size cribs. The final rule for non-full-size cribs includes one other modification that was not in the proposal. This change modifies the language for a warning label that cautions against placing netting or other covers over the product. The current wording in ASTM F 406-10a mentions only "play yards." The final rule substitutes the word "product" for "play yard," thus making the warning label also applicable to non-full-size cribs. The Commission did not receive any comments on this labeling issue. However, it is related to the effort in the CPSC's proposed and final non-full-size crib standards to exclude provisions that relate only to

play yards. Recently, ASTM approved these two changes (concerning folding cribs and the warning label regarding netting and covers) for its next version of ASTM F 406, but they are not in ASTM F 406-10a.

### 3. Effective Date

The Commission proposed a 6-month effective date. The final rule maintains the 6-month effective date but establishes two compliance dates: 6 months for all entities subject to the rule, except for child care facilities which have a 1-year compliance date. As discussed in sections E.8 and 10 of this preamble, the Commission received several comments from child care providers describing the impact that the crib standards could have on them. The final rule provides a longer compliance period for child care facilities to allow them additional time to purchase compliant cribs and to absorb the costs of meeting the standards.

## **G. Assessment of Voluntary Standards ASTM F 1169-10 and ASTM F 406-10a and**

### **Description of the Final Rule**

#### *1. Section 104(b) of the CPSIA: Consultation and CPSC Staff Review*

Section 104(b) of the CPSIA requires the Commission to assess the effectiveness of the voluntary standard in consultation with representatives of consumer groups, juvenile product manufacturers, and other experts. This consultation process for the full-size and non-full-size crib standards has involved: an ANPR, a public crib roundtable, and in-depth involvement with ASTM. CPSC staff's consultations with ASTM are ongoing.

#### *2. Description of the Final Standard for Full-Size Cribs, Including Changes to the Requirements of ASTM F 1169-10*

The Commission believes that the provisions of ASTM F 1169-10 are effective to reduce the risk of injury associated with full-size cribs. The modifications to ASTM F 1169-10 strengthen the ASTM standard. The final rule incorporates by reference ASTM F 1169-10 with two modifications:

- exclusion of the provision in the voluntary standard concerning retightening of screws and bolts between the crib side latch test and the mattress support vertical impact test; and
- addition of language to the voluntary standard clarifying how to conduct the slat/spindle strength test on a crib with folding or movable sides.

*a. Scope, Compliance Dates, and Definitions (§ 1219.1)*

Like the proposal, the final rule states that this part establishes a consumer product safety standard for new and used full-size cribs. In accordance with section 104(c) of the CPSIA, this section states that the standard applies to the manufacture, sale, contract for sale or resale, lease, sublet, offer, provision for use, or other placement in the stream of commerce of a new or used full-size crib. This section provides a compliance date of 6 months for all entities subject to the rule, except for child care facilities which will have 1 year to comply. As discussed in section H of this preamble, due to the number of compliant cribs that child care centers will need to provide for use, the final rule provides an additional 6 months for them to meet the full-size crib standard.

Section 1219.1(c) defines full-size baby crib as defined in ASTM F 1169-10 as a bed, with certain interior dimensions, that is designed to provide sleeping accommodations for an infant. In accordance with section 104(c) of the CPSIA, the definition includes cribs in child care facilities and places of public accommodation

affecting commerce. This section also provides the definition of “place of public accommodation affecting commerce” specified in section 104(c) of the CPSIA.

*b. Requirements for Full-Size Cribs (§ 1219.2)*

Incorporation by reference. Like the proposal, the final rule incorporates by reference ASTM F 1169-10, *Standard Consumer Safety Specification for Full-Size Baby Cribs*. The final rule requires compliance with the requirements of ASTM F 1169-10, with two modifications.

Modifications to the ASTM standard. The final rule for full-size cribs excludes the provision in section 6.12 of the ASTM standard that requires retightening of screws and bolts between the crib side latch test and the mattress support vertical impact test (§ 1219.2(b)(1) of the CPSC’s standard). This is identical to the proposed rule. As discussed in the preamble to the proposal (75 FR at 43314 through 43315), exclusion of this retightening provision strengthens the standard. Conducting the tests without retightening the hardware better represents the real use of a crib. Retightening fasteners would sever the chain of accumulated conditioning effects that the crib undergoes during the sequence of tests. Most of the comments that the CPSC received concerning this issue supported the CPSC’s exclusion of this provision. Further discussion of the rationale for excluding the hardware retightening provision is provided in section E.24 of this preamble.

The final rule adds one provision for full-size cribs that was not contained in the proposed rule. The final rule adds a sentence to section 7.7.1 of ASTM F 1169-10 to clarify how to conduct the spindle/slat static force test with a crib that has folding or movable sides (§ 1219.2(b)(2) of the CPSC’s standard). The slat strength test is intended

to verify that cribs slats can withstand 80 lbf. Without the clarification, conducting the test on a crib that has a hinge or other folding mechanism could result in testing the structural integrity of the hinge rather than the strength of the slats. Thus, the final rule adds the following sentence: “For cribs incorporating foldable or moveable sides for purposes of easier access to the occupant, storage, and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately.” The addition of this language strengthens the ASTM standard, because it eliminates an ambiguity about testing this type of crib.

Requirements of ASTM F 1169-10. The final rule incorporates the other requirements of ASTM F 1169-10 without change. These requirements establish a comprehensive standard for the safety of full-size cribs. ASTM F 1169-10 includes definitions; general requirements; performance requirements; specific test methods; and requirements for marking, labeling, and instructional literature. The key provisions of both ASTM standards are outlined in section G.4. of this preamble.

*3. Description of the Final Standard for Non-Full-Size Cribs, Including Changes to the Requirements of ASTM F 406-10a*

The Commission believes that the provisions of ASTM F 406-10a, with the specified modifications, are effective to reduce the risk of injury associated with non-full-size cribs. The final rule incorporates a version of ASTM F 406 that ASTM approved after the Commission had published its proposed rule and includes most of the modifications that the Commission proposed. These changes make ASTM F 406-10a more consistent with the ASTM standard for full-size cribs, rendering the standard more protective than the previous version. The modifications in the CPSC’s final rule further

strengthen the standard. The final rule incorporates by reference ASTM F 406-10a with four modifications that:

- exclude the hardware retightening provision;
- add language clarifying how to conduct the slat/spindle test on cribs with folding or movable sides;
- revise a warning concerning netting or other covers so that it includes non-full-size cribs; and
- exclude provisions that apply only to play yards.

*a. Scope, Compliance Dates, and Definitions (§ 1220.1)*

Like the proposal, the final rule states that this part establishes a consumer product safety standard for new and used non-full-size cribs. In accordance with section 104(c) of the CPSIA, this section states that the standard applies to the manufacture, sale, contract for sale or resale, lease, sublet, offer, provision for use, or other placement in the stream of commerce of a new or used non-full-size crib. This section provides a compliance date of 6 months for all entities subject to the rule, except for child care facilities which will have 1 year to comply. As discussed in section H of this preamble, due to the number of compliant cribs that child care centers will need to provide for use, the final rule provides an additional 6 months for them to meet the non-full-size crib standard.

Section 1220.1(c) defines non-full-size baby crib as defined in ASTM F 406-10a and explicitly excludes play yards. (A play yard is defined as “a framed enclosure that includes a floor and has mesh- or fabric-sided panels primarily intended to provide a play or sleeping environment for children. It may fold for storage or travel.”) A non-full-size

crib is essentially a crib that has dimensions other than those of a full-size crib, as defined in the full-size crib standard. In accordance with section 104(c) of the CPSIA, the definition includes cribs in child care facilities and places of public accommodation affecting commerce. This section provides the definition of “place of public accommodation affecting commerce” specified in section 104(c) of the CPSIA. It also provides definitions of terms relevant to the definition of non-full-size crib, such as “portable crib” and “play yard.”

*b. Requirements for Non-Full-Size Cribs (§ 1220.2)*

Incorporation by reference. The final rule incorporates by reference ASTM F 406-10a, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*. The final rule requires compliance with the requirements of ASTM F 406-10a, with four modifications.

Modifications to the ASTM standard. The final rule for non-full-size cribs excludes the provision in section 6.10 in the ASTM standard that requires retightening of screws and bolts between the crib side latch test and the mattress support vertical impact test (§1220.2(b)(3) of the CPSC standard). This exclusion was not in the proposed rule for the non-full-size crib standard because the proposal referenced ASTM F 406-10, which did not contain the hardware retightening provision. Excluding this provision is consistent with the CPSC’s standard for full-size cribs. The same reasons for that exclusion (see part E.24 of this preamble) apply with regard to non-full-size cribs.

The second modification to ASTM F 406-10a adds a sentence to clarify the testing of cribs with folding or movable sides. This modification was not in the proposed rule, but responds to comments on the proposal and is identical to the change in the full-

size crib standard. This provision adds a sentence to section 8.10.1 of ASTM F 406-10a to clarify how to conduct the spindle/slat static force test with a crib that has folding or movable sides (§ 1220.2(b)(5) of the CPSC's standard). Addition of this language strengthens the ASTM standard because it eliminates an ambiguity about testing this type of crib.

The third modification to ASTM F 406-10a revises a warning in section 9.4.2.6 of the ASTM standard that cautions against using netting or other covers (§ 1220.2(b)(12) of the CPSC's standard). The modification replaces the word "play yard" with the word "product" because the hazard posed by such covers exists for non-full-size cribs as well as play yards.

The final modifications to ASTM F 406-10a remove the provisions that relate only to play yards (§ 1220.2(b)(1), (2), (4), and (6) through (11) of the CPSC standard). Section 104(c) of the CPSIA distinguishes cribs (both full-size and non-full-size) from other durable infant or toddler products. This different treatment of cribs necessitates that the CPSC establish separate standards for non-full-size cribs and for play yards. In the future, we intend to issue a standard for play yards under section 104(b) of the CPSIA.

Requirements of ASTM F 406-10a. The final rule incorporates the other requirements of ASTM F 406-10a without change. The requirements establish a comprehensive standard for the safety of non-full-size cribs. Like the ASTM standard for full-size cribs, ASTM F 406-10a includes definitions; general requirements; performance requirements; specific test methods; and requirements for marking, labeling, and instructional literature. These requirements are essentially the same as the requirements

ASTM F 1169-10 establishes for full-size cribs. The key requirements of both ASTM standards are outlined in the following section of this preamble.

4. *Principal Requirements of Both ASTM Crib Standards*

Both the full-size and non-full-size crib standards incorporate by reference the relevant ASTM crib standards, with certain modifications explained above. The principal requirements are the same in both ASTM standards. These are:

- Dynamic impact testing of the mattress support system—intended to address incidents involving collapse or failure of mattress support systems. The 2010 standards updated the tests to address fatigue of mattress support brackets, support hardware, and mattress support due to children jumping in cribs.
- Impact testing of side rails and slat strength/integrity testing—intended to prevent slats and spindles from breaking and/or detaching during use. The requirements were made more stringent for the 2010 standards. The modification was intended to prevent entrapments by reducing the likelihood of slat/spindle breakage and the gaps that accompany them.
- Mattress support system testing—intended to ensure that the mattress support does not become detached from the frame, potentially resulting in a fall.
- Latching mechanism tests—intended to ensure that latching and locking mechanisms work as intended, preventing unintended folding while in use. Also requires that they be used with drop gates and movable sides.
- Crib side configurations—intended, in part, to limit movable (drop) sides. Addresses the numerous incidents related to drop-side failures.

- Label requirements—the required warnings were reordered in the 2010 full-size crib standard to emphasize fall hazards.
- Openings requirement for mattress support systems—a new requirement for the full-size crib 2010 standard that addresses gaps in the mattress support system to minimize the possibility of entrapment.
- Requirements for wood screws and other fasteners—a new requirement for the 2010 standards that addresses hazards that exist when wood screws are the primary method of attachment. Also includes other fastener requirements to address incidents related to loose hardware and poor structural integrity.
- Cyclic testing—a new requirement for the 2010 standards that addresses incidents involving failures of non-drop-side hardware and poor structural integrity. This requirement was taken from the Canadian standard and simulates long-term shaking of the product by a child.
- Misassembly issues—a new requirement for the 2010 standards where it must either be impossible to misassemble key elements or those elements must have markings that make it obvious when they have been misassembled.
- Test requirement for accessories—a new requirement for the 2010 standards that is intended to address any cribs that may now, or in the future, include accessories, such as bassinets or changing tables.
- Crib interior dimensions—a new requirement for the 2010 standards that is taken directly from the CPSC’s mandatory regulation and is intended to ensure that all full-size cribs have the same interior dimensions.

- Component spacing—a new requirement for the 2010 standards that is taken directly from the CPSC’s mandatory regulation and is intended to prevent child entrapment between both uniformly and non-uniformly-spaced components, such as slats.

*5. The Final Crib Standards Address the Principal Hazards Related to Cribs*

This section summarizes how the standards for full-size and non-full-size cribs address the principal crib-related hazards that the CPSC has identified through its review of incidents involving cribs.

The crib standards address structural failures of cribs that are related to drop-side failures through a requirement that the sides of a crib be fixed in place and have no movable sections less than 20 inches from the top of the mattress support (effectively eliminating drop sides). The standards address problems with non-drop-side hardware and poor structural integrity through requirements for screw fasteners, locking components, and the cyclic side (shake) test. Loosening of wood screws and other fasteners also has led to crib incidents. The standards address these hazards through the wood screw requirements of 16 CFR 1508 and 1509 (which are now in ASTM F 1169-10 and ASTM F 406-10a), restricting the use of wood screws as primary fasteners; prohibiting use of wood screws in structural elements that a consumer would need to assemble; and imposing stricter requirements for the use of threaded metal inserts and other metal-threaded fasteners. Problems with the structural integrity of cribs and hardware issues (such as loosened joints, detached sides and overall poor structural integrity) are addressed by the cyclic side (shake) test, which simulates a child’s lifetime shaking of the crib. The test applies a cyclic force (9,000 vertical and then 9,000

horizontal load cycles using 27 lbf) at the midpoint of each top rail, end, and side of the crib. To address mattress-related issues (such as, entrapments between a mattress support and a crib structure, and mattress support structural failures), the crib standards include a mattress impact cyclic test that consists of dropping a 45-pound mass (20 kg) repeatedly every 4 seconds onto a polyurethane foam test mattress covered in vinyl and supported by the mattress support system. The crib standards address crib slat disengagement (which can result in entrapment) by specifying that any crib side with slats must be tested (previously the number of sides was not specified and manufacturers could test just one side). The crib standards address broken or dislocated slats, which can cause a gap of approximately 5 inches, by making the slat/spindle strength test more stringent, requiring a set number of slats to withstand an 80-pound load. The crib standards address misassembly issues by including a requirement which states: “Crib designs shall only allow assembly of key structural elements in the manufacturer’s recommended use position or have markings that indicate their proper orientation. The markings must be conspicuous in the misassembled state.”

#### **H. 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 proposed that the standard would become effective six months after publication of a final rule. The Commission invited comments regarding the sufficiency of a 6-month effective date for the crib standards, which are discussed in section E.10 of this preamble.

Based on review of the comments, the final rule provides a 6-month effective date with two compliance dates: a 6-month compliance date for all entities subject to the rule, except for child care facilities, which have 1 year to comply with the standards. This approach alleviates concerns that there may not be a sufficient supply of cribs that meet the new standards for child care centers to provide compliant cribs within a 6-month effective date. Providing this additional period of time for child care centers addresses their concerns about the costs of compliance by allowing additional time for them to locate funding and to absorb the costs of the rule. This approach still requires manufacturers and retailers (as well as other entities selling, leasing or otherwise providing cribs) to supply compliant cribs within 6 months just as the Commission had proposed. Providing tiered compliance dates should allow for an orderly process of supply, so that cribs are first manufactured and made available for sale before child care facilities, which must purchase compliant cribs, are required to comply with the standards. This approach also will not delay the availability of cribs in stores for individual consumers to purchase, which would have been the case if the rule established a uniform 1-year effective date to accommodate the impact on child care facilities.

### **I. Regulatory Flexibility Act**

The Regulatory Flexibility Act (“RFA”) generally requires that agencies review proposed rules for their potential economic impact on small entities, including small businesses, and prepare an initial regulatory flexibility analysis. 5 U.S.C. 603. The RFA further requires that agencies consider comments they receive on the initial regulatory flexibility analysis and prepare a final regulatory flexibility analysis describing the impact of the final rule on small entities and identifying alternatives that could reduce

that impact. *Id.* 604. This section summarizes the staff's final regulatory flexibility analyses for the full-size and non-full-size crib standards, which is provided at Tabs A and B of the staff's briefing package.

*1. Full-Size Cribs*

*a. The Market for Full-Size Cribs*

As mentioned in section B.2 of this preamble, CPSC staff estimates that there are currently 68 manufacturers or importers supplying full-size cribs to the U.S. market. Of those that could be categorized, 10 are domestic importers; 42 are domestic manufacturers; 7 are foreign manufacturers; and 2 are foreign importers. CPSC staff estimates annual sales of new cribs to be about 2.4 million (could be an underestimate if new mothers buy more than one crib). CPSC staff estimates that there are currently approximately 591 models of full-size cribs compared to approximately 81 models of non-full-size cribs. Thus, approximately 88 percent of crib models are full-size cribs. Applying this percentage to the number of cribs sold annually results in a rough estimate of 2.1 million full-size cribs sold each year.

JPMA, the major U.S. trade association representing juvenile product manufacturers and importers, runs a voluntary certification program for several juvenile products. Approximately 30 firms (44 percent) supply full-size cribs to the U.S. market that have been certified by JPMA as compliant with the ASTM voluntary standard F 1169-09. Additionally, 15 firms claim compliance, although their products have not been certified by JPMA. The regulatory flexibility analysis assumes that the 45 firms that provide cribs that are certified to, or claim to be compliant with, earlier ASTM standards, will remain compliant with ASTM standard F 1169-10.

As noted previously, section 104 of the CPSIA operates such that when the Commission's crib standards take effect, they will apply to retailers of both new and used full-size cribs and to child care facilities and places of public accommodation, such as hotels, that supply full-size cribs to their patrons. Based on public comments received from child care centers in response to the proposed rule, it appears that child care centers typically use a mix of full-size and non-full-size cribs, but primarily non-full-size cribs. However, CPSC staff still assumes that places of public accommodation tend to provide non-full-size cribs to their customers, as opposed to the more unwieldy full-size cribs. The number of firms that may be selling or providing full-size cribs is unknown, but may be drawn from approximately 24,985 retail firms (at least 5,292 of which sell used products); 59,555 firms supplying child care services; and 43,303 firms offering accommodations to the public that may be supplying new or used full-size cribs.

*b. Impact on Small Businesses*

There are approximately 68 firms currently known to be producing or selling full-size cribs in the United States. Based on Small Business Administration (SBA) guidelines, which consider a manufacturer to be small if it has 500 or fewer employees and an importer to be small if it has 100 or fewer employees, 48 of these firms (36 domestic manufacturers, 10 domestic importers, and 2 firms with unknown sources of supply) are small. There are probably additional unknown small manufacturers and importers operating in the U.S. market.

According to SBA guidelines, retailers and service providers, such as child care centers and places of public accommodation, are considered small if they have \$7 million or less in annual receipts. Approximately 93 percent of all retailers have receipts of less

than \$5 million, with an additional 3 percent having receipts between \$5 million and \$9.99 million. Excluding firms with receipts of between \$5 million and \$7 million, yields an estimated 23,236 small retail firms. Some portion of these retail firms would be affected by the final rule because only a small percentage of these small firms actually sell full-size cribs. Thus, the number of small retail firms affected will be far fewer than 23,236. Among child care service providers, approximately 98 percent have receipts of less than \$5 million, with an additional 0.9 percent having receipts between \$5 million and \$9.99 million. This suggests that roughly 58,364 small child care firms (of 59,555) could be affected.

*i. Small Manufacturers*

The impact of the standard for full-size cribs on small manufacturers will differ based on whether their products comply with ASTM standard F 1169–10. Of the 36 small domestic manufacturers, 24 produce cribs that are certified by JPMA or that they claim are in compliance with the voluntary standard. The impact on the 24 compliant firms is not expected to be significant. It seems unlikely that any of these products will require modification to meet the CPSC standard. Should any modifications be necessary, the modification would likely be minor (such as more effective screws or screw combinations).

The CPSC standard could have a significant impact on one or more of the 12 firms that are not compliant with the voluntary standard, because their products might require substantial modifications. The costs associated with these modifications could include costs for product design, development and marketing staff time, and product testing. There may also be increased production costs, particularly if additional materials

are required. The actual cost of such an effort is unknown, but could be significant, especially for the two firms that rely primarily or entirely on the production and sale of full-size cribs and related products, such as accompanying furniture and bedding, and for a third firm that produces only one other product. However, the impact of these costs may be diminished if they are treated as new product expenses that can be amortized.

The scenario described above assumes that only those firms that produce cribs that are certified by JPMA or that claim ASTM compliance will pass the voluntary standard's requirements. This is not necessarily the case. CPSC staff has identified many cases in which products that are not certified by JPMA actually are compliant with the relevant ASTM standard. To the extent that this is true, the impact of the CPSC standard will be less significant than described.

*ii. Small Importers*

While 4 of the 10 small importers are not compliant with the voluntary standard, all would need to find an alternate source of full-size cribs if their existing supplier does not come into compliance with the new requirements of the CPSC standard. The cost to importers may increase, and they, in turn, may pass on some of those increased costs to their customers. Some importers may respond to the rule by ceasing to import cribs that do not comply. However, the impact of such a decision may be lessened by replacing the noncompliant crib(s) with complying products or other juvenile products. Deciding to import an alternative product would be a reasonable and realistic way to offset any lost revenue, given that most small importers import a variety of products.

*iii. Small Retailers and Child Care Centers*

The CPSIA requires that all full-size cribs sold (or leased) by retailers or provided by child care centers to their customers comply with the CPSC's full-size crib rule. This means that retailers, most of whom are small, will need to verify that any full-size cribs in their inventory (that they intend to sell or lease after the effective date), and any that they purchase in the future, comply with the regulation prior to offering the cribs for sale. CPSC staff believes that most retailers, particularly small retailers, do not keep large inventories of cribs. With an effective date six months after publication of the final rule, retailers of new products should have sufficient notification and time to make this adjustment with little difficulty. The situation for retailers of used cribs is more complicated, however, because they may not always be able to determine whether the full-size cribs they receive comply with the new CPSC standard. For these affected retailers, it may be simpler to discontinue the sale of used full-size cribs. If cribs represent a small portion of the products they sell, then the impact of the rule on these firms may be limited.

Child care centers must provide compliant cribs for their customers. The rule provides a 6-month effective date with an additional 6-month compliance period for child care centers to meet the standards. This longer period of time for child care centers to comply gives them additional time to purchase and replace their cribs that do not comply with the final rule. Without a longer period for compliance, the impact on small child care firms would be greater, particularly for those that would have to replace all of their cribs at once.

Based on data provided by the comments, it appears that the average child care center has between 4 and 45 cribs, fewer than half of which are likely to be full-size.

Each crib costs approximately \$500. Therefore, if 25 percent of the cribs that must be replaced are full-size cribs, then replacement for an individual child care center could run from \$500 to as high as \$5,500. The total one-time cost to child care centers, the majority of which are small, of replacing all of their full-size cribs is estimated to be approximately \$97 million nationwide. Providing child care centers with 1 year to comply with the new crib standards will reduce the impact on child care centers; however, some child care centers still could be affected significantly.

There are additional considerations concerning the one-time costs child care providers face. Some costs may be passed on to customers through small increases in the rates child care providers charge. Child care providers would recoup these costs over an extended period, while the initial outlay for new cribs would be much more immediate. Additionally, as several commenters noted, child care centers are limited in how much of the costs can be passed on to their customers. For example, one commenter stated that approximately 35 percent of the children in their care—more than 150,000—receive some form of state subsidy, and another provider stated that approximately one-third of the children in their care receive some subsidy. Raising rates above what customers can bear has the potential to deprive families of child care or force them into alternative child care arrangements that may not be subject to the final rule. The latter possibility has the potential for safety risks in excess of those that currently exist in child care centers.

Some centers could opt to replace their full-size cribs with play yards, which are less expensive to purchase (typically \$100–\$200) than full-size cribs, thereby spreading replacement costs over a longer period. While this would reduce the impact of the final rule, the alternative of providing play yards may be limited due to state licensing laws.

The CPSC does not advocate the use of play yards over cribs, but acknowledges that the choice of play yards instead of cribs may be an option for some child care providers.

*iv. Alternatives*

Under section 104 of the CPSIA, one alternative that could reduce the impact on small entities would be to make the voluntary standard mandatory without any modifications. Adopting the current full-size crib voluntary standard without any changes potentially could reduce costs for 12 of the 36 small manufacturers and 4 of the 10 small importers that are not compliant already with the voluntary standard. However, these firms still will require substantial product changes in order to meet the voluntary standard. Because the CPSC's changes add little to the overall burden of the rule, adopting the voluntary standard without any changes will not offset significantly the burden that is expected for these firms.

Another way to reduce the impact on small firms would be to allow more time for such entities to comply with the final rule by providing a 1-year effective date for all entities. This would allow additional time for small manufacturers and small importers of non-compliant cribs. It could also alleviate inventory issues for small retailers and would allow places of public accommodation additional time to purchase compliant cribs, reducing the impact on these small firms.

A third alternative that could reduce the impact on small firms would be to provide an even longer compliance period for child care centers. Although this would reduce the impact on small child care centers, it would not have any impact on small manufacturers, importers or places of public accommodation.

## *2. Non-Full-Size Cribs*

### *a. The Market for Non-Full-Size Cribs*

CPSC staff estimates that there are currently at least 17 manufacturers or importers supplying non-full-size cribs to the U.S. market. Five of these firms are domestic importers and 10 are domestic manufacturers. Insufficient information is available to determine whether the remaining firms are manufacturers or importers.

Five firms supply non-full-size cribs to the U.S. market that have been JPMA-certified as compliant with the ASTM voluntary standard. Additionally, two firms claim compliance, although their products have not been certified by JPMA. Therefore, including the firms that claim compliance with the ASTM standard, five manufacturers and one importer have products that are ASTM compliant. Additionally, one of the firms with an unknown source of supply also claims compliance with the ASTM standard. This analysis assumes that firms that are certified or claim to be compliant with earlier ASTM standards will remain compliant with ASTM standard F 406–10a.

As explained in the analysis concerning full-size cribs (section I.1.b. of this preamble), CPSC staff estimates annual sales to households to be about 2.4 million cribs. CPSC staff estimates that there are approximately 81 non-full-size crib models currently being supplied (versus 591 full-size crib models). Therefore, approximately 12 percent of the crib models on the U.S. market are non-full-sized. Applying this to the number of cribs sold annually yields a rough estimate of 293,000 non-full-size cribs sold each year..

As previously noted, section 104 of the CPSIA explicitly makes the crib standards applicable to retailers of both new and used non-full-size cribs and to child care facilities and places of public accommodation, such as hotels that supply non-full-size cribs to

their patrons. Based on comments received from child care centers in response to the proposed rule, it appears that child care centers typically use a mix of full-size and non-full-size cribs, with a bias in favor of non-full-size cribs. CPSC staff still assumes that places of public accommodation tend to provide their customers with non-full-size cribs as opposed to full-size cribs. The number of firms that may be selling or providing non-full-size cribs is unknown, but may be drawn from the approximately 24,985 retail firms (at least 5,292 of which sell used products), the 59,555 firms supplying child care services, and the 43,303 firms providing products to places of public accommodation. Each of these groups may be supplying new or used non-full-size cribs to the public.

*b. Impact on Small Businesses*

There are approximately 17 firms currently known to be producing or selling non-full-size cribs in the United States. Based on the SBA's guidelines, which consider a manufacturer to be small if it has 500 or fewer employees and an importer to be small if it has 100 or fewer employees, 14 suppliers are small firms (9 domestic manufacturers and 5 importers). The size of the remaining firms—two with unknown supply sources and one domestic manufacturer—could not be determined. There are probably additional unknown small manufacturers and importers operating in the U.S. market.

As explained in the analysis of the impact of the full-size crib standard, CPSC staff estimates that 23,236 retail firms would be considered small according to SBA's guidelines. Some of these small firms sell non-full-size cribs. Thus, the number of small retail firms affected will be far fewer than 23,236. CPSC staff estimates that using SBA's guidelines, there are approximately 58,364 small child care firms (of 59,555) and 42,437 small hotel firms (of 43,303) that could be affected by the crib standards.

*i. Small Manufacturers*

The impact of the CPSC's non-full-size crib standard on small manufacturers will differ based on whether their products are expected to be compliant with ASTM standard F 406-10. Of the nine small domestic manufacturers, five are in compliance with the voluntary standard. The impact on the five compliant firms is not expected to be significant. It seems unlikely that any of these products will require modification to meet the final standard. Should any modifications be necessary, they would be most likely minor (such as more effective screws or screw combinations).

The CPSC's final standard for non-full-size cribs could have a significant impact on one or more of the four firms that are not compliant with the voluntary standard, because their products might require substantial modifications. The costs associated with these modifications could include product design, development and marketing staff time, and product testing. There may also be increased production costs, particularly if additional materials are required. The actual cost of such an effort is unknown, but could be significant, especially for the one firm that relies on the production and sale of non-full-size cribs and related products, such as accompanying furniture and bedding. However, the impact of these costs may be diminished if they are treated as new product expenses that can be amortized.

The scenario described above assumes that only those firms that produce cribs certified by JPMA or claim ASTM compliance will pass the requirements of ASTM F 406-10a. This is not necessarily the case. CPSC staff has identified many cases in which products not certified by JPMA actually are compliant with the relevant ASTM standard.

To the extent that this is true, the impact of the final rule will be less significant than described.

*ii. Small Importers*

Although four of the five small importers are not compliant with the voluntary standard, all would need to find an alternate source of non-full-size cribs if their existing supplier does not come into compliance with the new requirements of the final standard. The cost to importers may increase and they, in turn, may pass on some of those increased costs to their customers. Some importers may address the rule requirements by ceasing to import cribs that do not comply with the new standard. However, the impact of such a decision may be diminished by replacing the noncompliant cribs with complying products or other juvenile products. Deciding to import an alternative product would be a reasonable and realistic way to offset any lost revenue, given that most small importers import a variety of products.

*iii. Small Retailers and Child Care Centers*

The CPSIA requires that all cribs sold (or leased) by retailers or provided by child care centers to their customers comply with the CPSC's new crib standards. Thus, retailers will need to verify that any non-full-size cribs in their inventory (that they intend to sell or lease after the effective date), and that any they purchase in the future, comply with the regulation prior to offering the cribs for sale. CPSC staff believes that most retailers, particularly small retailers, do not keep large inventories of cribs. With an effective date six months after publication of the rule, retailers of new products should have sufficient notification and time to make this adjustment with little difficulty. Retailers of used cribs may have difficulty determining whether the cribs they receive

comply with the new CPSC standard, and therefore, may discontinue the sale of used non-full-size cribs. If cribs represent a small portion of the products they sell, then the impact of the rule on these firms may be limited.

Child care centers must provide compliant non-full-size cribs for their customers. The rule provides a 6-month effective date with an additional 6-month compliance period for child care centers to meet the standards. This longer period of time for child care centers to comply with the standards could reduce the impact on small child care firms. Based on data provided through public comments, it appears that the average child care center has between 4 and 45 cribs, more than half of which are likely to be non-full-size. Each crib costs approximately \$500. Therefore, if 75 percent of the cribs that must be replaced are non-full-size cribs, then replacement for an individual child care center could run from \$1,500 to as high as \$16,500. The total one-time cost to child care centers, the majority of which are small, of replacing all of their non-full-size cribs is estimated to be approximately \$290 million nationwide. Providing child care centers with 1 year to comply with the new crib standards will reduce the impact on child care centers; however, some child care centers still could be affected significantly.

As discussed in the analysis of the full-size crib standard, there are additional considerations concerning the one-time costs for child care providers. Some costs may be passed on to customers through small increases in the rates child care providers charge (although the expenditure for new cribs would be far more immediate). Child care centers may have limited ability to pass these costs on to their customers, particularly in light of the number of children in child care who received some form of state subsidy. Although some child care centers could replace their non-full-size cribs with less

expensive play yards (typically \$100–\$200), this alternative may not be available to some child care centers if state licensing laws require use of cribs rather than play yards.

Some hotels may provide a few non-full-size cribs for their customers. The number of cribs at any one establishment is likely to be low, especially because of the likelihood that parents traveling with young children will bring along sleep products, such as play yards or portable cribs, for their children. As with child care centers, this is a one-time cost for firms that, over time, likely can be passed on to customers. Firms, particularly smaller ones, may opt to reduce the replacement costs by ceasing to provide cribs to their customers, replacing only some cribs, or providing play yards instead of non-full-size cribs. Therefore, it is unlikely that the rule will have a significant impact on a substantial number of firms that provide these cribs in places of public accommodation.

*iv. Alternatives*

The same alternatives for reducing the impact of the full-size crib standard also apply to reducing the impact of the non-full size crib standard. One alternative is to make the voluntary standard mandatory with no modifications. Adopting the current voluntary standard without any changes potentially could reduce costs for four of the nine small manufacturers and four of the five small importers who are not already compliant with the voluntary standard. However, these firms still will require substantial product changes in order to meet the voluntary standard. Since the changes add little to the overall burden of the rule on small manufacturers, adopting the voluntary standard with no changes will not offset significantly the burden that is expected for these firms. Adopting the voluntary standard with no modifications could reduce the impact on small retailers and some child care providers.

Another alternative that could reduce the impact on small firms would be to allow more time for such entities to comply with the final rule by providing a 1-year effective date for all entities that are subject to the rule. This would allow additional time for small manufacturers and small importers of non-compliant cribs. It could also alleviate inventory issues for small retailers and would allow places of public accommodation additional time to purchase compliant cribs, reducing the impact on these small firms. A third alternative that could reduce the impact on small firms would be to provide an even longer compliance period for child care centers. Although this would reduce the impact on small child care centers, it would not have any impact on small manufacturers, importers or places of public accommodation.

#### **J. 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 because they "have little or no potential for affecting the human environment." 16 CFR 1021.5(c)(2). This rule falls within the categorical exclusion.

#### **K. Paperwork Reduction Act**

This rule contains information collection requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520). Therefore, the preamble to the proposed rule (75 FR at 43319 through 43321) discussed the information collection burden of the proposed rule and specifically requested comments on the accuracy of our estimates. We did not receive any comments concerning the information collection burden of the proposal, and the final rule does not make any changes to that burden. We have applied

to the U.S. Office of Management and Budget (OMB) for a control number for this information collection, and we will publish a notice in the *Federal Register* providing the number when the agency receives approval from OMB.

#### **L. Preemption**

Section 26(a) of the CPSA, 15 U.S.C. 2075(a), provides that where a “consumer product safety standard under [the CPSA]” 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.

#### **M. Certification**

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, be certified as complying 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 on a sufficient number of samples by a third party conformity assessment body accredited by the Commission to test according to the applicable

requirements. Section 104(b)(1)(B) of the CPSIA refers to standards issued under that section as “consumer product safety standards.” By the same reasoning, such standards also would be subject to section 14 of the CPSA. Therefore, any such standard would be considered a consumer product safety rule, to which products subject to the rule must be certified.

Because full-size cribs and non-full-size cribs are children’s products, they must be tested by a third party conformity assessment body whose accreditation has been accepted by the Commission. Elsewhere in this issue of the *Federal Register*, we have issued a notice of requirements to explain how laboratories can become accredited as third party conformity assessment bodies to test to the new crib standards. The Commission previously issued a notice of requirements for accreditation to test to the existing crib standards (16 CFR 1508 and 1509) in the *Federal Register* of October 22, 2008 (73 FR 62965). (Baby cribs also must comply with all other applicable CPSC requirements, such as the lead content requirements of section 101 of the CPSIA, the phthalate content requirements in section 108 of the CPSIA, the tracking label requirement in section 14(a)(5) of the CPSA, and the consumer registration form requirements in section 104 of the CPSIA.).

### **List of Subjects**

#### *16 CFR Part 1219*

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

#### *16 CFR Part 1220*

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

*16 CFR Part 1500*

Consumer protection, Hazardous substances, Imports, Infants and children, Labeling, Law enforcement, Reporting and recordkeeping, and Toys.

Therefore, the Commission amends Title 16 CFR chapter II as follows:

1. Add part 1219 to read as follows:

**PART 1219 – SAFETY STANDARD FOR FULL-SIZE BABY CRIBS**

Sec.

1219.1 Scope, compliance dates, and definitions.

1219.2 Requirements for full-size baby cribs.

**AUTHORITY:** The Consumer Product Safety Improvement Act of 2008, Pub. Law 110-314, § 104, 122 Stat. 3016 (August 14, 2008).

**§ 1219.1 Scope, compliance dates, and definitions.**

(a) *Scope.* This part establishes a consumer product safety standard for new and used full-size baby cribs.

(b) *Compliance dates.* (1) Except as provided in paragraph (b)(2) of this section, compliance with this part 1219 shall be required on [insert date 6 months after date of publication in the FEDERAL REGISTER], and applies to the manufacture, sale, contract for sale or resale, lease, sublet, offer, provision for use, or other placement in the stream of commerce of a new or used full-size baby crib on or after that date.

(2) Child care facilities (including family child care homes) shall be required to

comply with this part on [insert date 1 year after publication in the FEDERAL REGISTER].

(c) *Definitions.* (1) *Full-size baby crib* means a bed that is:

(i) Designed to provide sleeping accommodations for an infant;

(ii) Intended for use in the home, in a child care facility, or place of public accommodation affecting commerce; and

(iii) Within a range of  $\pm 5.1$  cm ( $\pm 2$  in.) of the following interior dimensions:

The interior dimensions shall be  $71 \pm 1.6$  cm ( $28 \pm \frac{5}{8}$  in.) wide as measured between the innermost surfaces of the crib sides and  $133 \pm 1.6$  cm ( $52 \frac{3}{8} \pm \frac{5}{8}$  in.) long as measured between the innermost surfaces of the crib end panels, slats, rods, or spindles. Both measurements are to be made at the level of the mattress support spring in each of its adjustable positions and no more than 5 cm (2 in.) from the crib corner posts or from the first spindle to the corresponding point of the first spindle at the other end of the crib. If a crib has contoured or decorative spindles, in either or both of the sides or ends, the measurement shall be determined from the largest diameter of the first turned spindle within a range of 10 cm (4 in.) above the mattress support spring in each of its adjustable positions, to a corresponding point on the first spindle or innermost surface of the opposite side of the crib.

(2) *Place of public accommodation affecting commerce* means any inn, hotel, or other establishment that provides lodging to transient guests, except that such term does not include an establishment treated as an apartment building for purposes of any State or local law or regulation or an establishment located within a building that contains not more than five rooms for rent or hire and that is actually occupied as a residence by the

proprietor of such establishment.

**§ 1219.2 Requirements for full-size baby cribs.**

(a) Except as provided in paragraph (b) of this section, each full-size baby crib shall comply with all applicable provisions of ASTM F 1169-10, Standard Consumer Safety Specification for Full-Size Baby Cribs, approved June 1, 2010. 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, PO Box 0700, West Conshohocken, PA 19428; telephone 610-832-9585; [www.astm.org](http://www.astm.org). 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) Comply with the ASTM F 1169-10 standard with the following additions or exclusions:

(1) Do not comply with section 6.12 of ASTM F 1169-10.

(2) Instead of complying with section 7.7.1 of ASTM F 1169-10, comply with the following:

(i) The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating foldable or moveable sides for

purposes of easier access to the occupant, storage and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately.

(ii) [Reserved]

2. Add part 1220 to read as follows:

**PART 1220 – SAFETY STANDARD FOR NON-FULL-SIZE BABY CRIBS**

Sec.

1220.1 Scope, compliance dates, and definitions.

1220.2 Requirements for non-full-size baby cribs.

**AUTHORITY:** The Consumer Product Safety Improvement Act of 2008, Pub. Law 110-314, § 104, 122 Stat. 3016 (August 14, 2008).

**§ 1220.1 Scope, compliance dates, and definitions.**

(a) *Scope.* This part establishes a consumer product safety standard for new and used non-full-size baby cribs.

(b) *Compliance dates.* (1) Except as provided in paragraph (b)(2) of this section, compliance with this part 1220 shall be required on [insert date 6 months after date of publication in the FEDERAL REGISTER], and applies to the manufacture, sale, contract for sale or resale, lease, sublet, offer, provision for use, or other placement in the stream of commerce of a new or used non-full-size baby crib on or after that date.

(2) Child care facilities (including family child care homes) shall be required to comply with this part on [insert date 1 year after publication in the FEDERAL REGISTER].

(c) *Definitions.* (1) *Non-full-size baby crib* means a bed that is:

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- (i) Designed to provide sleeping accommodations for an infant;
- (ii) Intended for use in or around the home, for travel, in a child care facility, in a place of public accommodation affecting commerce and other purposes;
- (iii) Has an interior length dimension either greater than 139.7 cm (55 in.) or smaller than 126.3 cm (49  $\frac{3}{4}$  in.), or, an interior width dimension either greater than 77.7 cm (30  $\frac{5}{8}$  in.) or smaller than 64.3 cm (25  $\frac{3}{8}$  in.), or both;
- (iv) Includes, but is not limited to, the following:
  - (A) *Portable crib*—a non-full-size baby crib designed so that it may be folded or collapsed, without disassembly, to occupy a volume substantially less than the volume it occupies when it is used.
  - (B) *Crib pen*—a non-full-size baby crib with rigid sides the legs of which may be removed or adjusted to provide a play pen or play yard for a child.
  - (C) *Specialty crib*—an unconventionally shaped (circular, hexagonal, etc.) non-full-size baby crib incorporating a special mattress or other unconventional components.
  - (D) *Undersize crib*—a non-full-size baby crib with an interior length dimension smaller than 126.3 cm (49  $\frac{3}{4}$  in.), or an interior width dimension smaller than 64.3 cm (25  $\frac{3}{8}$  in.), or both.
  - (E) *Oversize crib*—a non-full-size baby crib with an interior length dimension greater than 139.7 cm (55 in.), or an interior width dimension greater than 77.7 cm (30  $\frac{5}{8}$  in.), or both.
- (v) Does not include mesh/net/screen cribs, nonrigidly constructed baby cribs, cradles (both rocker and pendulum types), car beds, baby baskets, and bassinets (also

known as junior cribs).

(2) *Play yard* means a framed enclosure that includes a floor and has mesh or fabric sided panels primarily intended to provide a play or sleeping environment for children. It may fold for storage or travel.

(3) *Place of public accommodation affecting commerce* means any inn, hotel, or other establishment that provides lodging to transient guests, except that such term does not include an establishment treated as an apartment building for purposes of any State or local law or regulation or an establishment located within a building that contains not more than five rooms for rent or hire and that is actually occupied as a residence by the proprietor of such establishment.

**§ 1220.2 Requirements for non-full-size baby cribs.**

(a) Except as provided in paragraph (b) of this section, each non-full-size baby crib shall comply with all applicable provisions of ASTM F 406-10a, Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards, approved October 15, 2010. 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, PO Box 0700, West Conshohocken, PA 19428; telephone 610-832-9585; [www.astm.org](http://www.astm.org). 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) Comply with the ASTM F 406-10a standard with the following additions or exclusions:

(1) Do not comply with sections 5.6.2 through 5.6.2.4 of ASTM F 406-10a.

(2) Do not comply with section 5.16.2 of ASTM F 406-10a.

(3) Do not comply with section 6.10 of ASTM F 406-10a.

(4) Do not comply with section 7, *Performance Requirements for Mesh/Fabric Products*, of ASTM F 406-10a.

(5) Instead of complying with section 8.10.1 of ASTM F 406-10a, comply with the following:

(i) The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating foldable or moveable sides for purposes of easier access to the occupant, storage and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately.

(ii) [Reserved]

(6) Do not comply with sections 8.11 through 8.11.2.4 of ASTM F 406-10a.

(7) Do not comply with sections 8.12 through 8.12.2.2 of ASTM F 406-10a.

(8) Do not comply with section 8.14 through 8.14.2 of ASTM F 406-10a.

(9) Do not comply with sections 8.15 through 8.15.3.3 of ASTM F 406-10a.

(10) Do not comply with sections 8.16 through 8.16.3 of ASTM F 406-10a.

(11) Do not comply with section 9.3.2 through 9.3.2.4 of ASTM F 406-10a.

(12) Instead of complying with section 9.4.2.6 of ASTM F 406-10a, comply with

the following warning requirement:

(i) **Child can become entrapped and die when improvised netting or covers are placed on top of product. Never add such items to confine child in product.**

(ii) [Reserved].

3. The authority citation for part 1500 is revised to read as follows:

Authority: 15 U.S.C. 1261–1278, 122 Stat. 3016; the Consumer Product Safety Improvement Act of 2008, Pub. Law 110-314, § 104, 122 Stat. 3016 (August 14, 2008).

4. Revise §§ 1500.18(a)(13) and (14) to read as follows:

**§ 1500.18 Banned toys and other banned articles intended for use by children.**

(a) \* \* \*

(1) \* \* \*

(13) Any full-size baby crib that is manufactured, sold, contracted to sell or resell, leased, sublet, offered, provided for use, or otherwise placed in the stream of commerce on or after [insert date six months after publication in the FEDERAL REGISTER] and that does not comply with the requirements of part 1219 of this chapter.

(14) Any non-full-size baby crib that is manufactured, sold, contracted to sell or resell, leased, sublet, offered, provided for use, or otherwise placed in the stream of commerce on or after [insert date six months after publication in the FEDERAL REGISTER] and that does not comply with the requirements of part 1220 of this chapter.

\* \* \* \* \*

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Dated: \_\_\_\_\_

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Todd A. Stevenson, Secretary  
U.S. Consumer Product Safety Commission

**CONSUMER PRODUCT SAFETY COMMISSION**

**16 CFR Parts 1508 and 1509**

**Revocation of Requirements for Full-Size Baby Cribs and Non-Full-Size Baby Cribs**

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Final rule.

**SUMMARY:** Section 104(b) of the Consumer Product Safety Improvement Act of 2008 (“CPSIA”) requires the U.S. Consumer Product Safety Commission (“CPSC” or “Commission”) 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 issuing this rule to revoke its existing regulations pertaining to full-size and non-full-size cribs because, elsewhere in this issue of the FEDERAL REGISTER, the Commission is issuing consumer product safety standards for cribs that will further reduce the risk of injury associated with these products under section 104 of the CPSIA. The new consumer product safety standards for cribs will include the requirements that have been in 16 CFR parts 1508 and 1509 for full-size and non-full-size cribs. To eliminate duplication, the Commission is removing 16 CFR parts 1508 and 1509 entirely.

**DATES:** Effective [insert date 6 months after date of publication in the FEDERAL REGISTER ].

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**FOR FURTHER INFORMATION CONTACT:** Christopher Melchert, Division of Regulatory Enforcement, Office of Compliance, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-7588; [cmelchert@cpsc.gov](mailto:cmelchert@cpsc.gov).

**SUPPLEMENTARY INFORMATION:**

**A. What Regulations Is the CPSC Revoking?**

The CPSC first published the full-size crib regulation, 16 CFR 1508, in 1973 (38 FR 32129 (Nov. 21, 1973)) and amended it in 1982. The CPSC published the regulation for non-full-size cribs, 16 CFR 1509, in 1976 (41 FR 6240 (Feb. 12, 1976)), and amended it in 1982. Both standards contain requirements pertaining to dimensions, spacing of components, hardware, construction and finishing, assembly instructions, cutouts, identifying marks, warning statements, and compliance declarations. In addition, 16 CFR 1509 contains a requirement regarding mattresses.

**B. Why Is the CPSC Revoking the Regulations Pertaining to Cribs?**

The Consumer Product Safety Improvement Act of 2008, Public Law 110-314 (“CPSIA”), was enacted on August 14, 2008. Section 104(b) of the CPSIA requires the Commission 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. Elsewhere in this issue of the Federal Register, the Commission is issuing safety standards for full-size and non-full-size cribs under the authority of section 104 of the CPSIA. These new standards adopt the voluntary

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standards developed by ASTM International (formerly known as the American Society for Testing and Materials), which are more stringent in some respects than the current applicable standards, and include ASTM F 1169-10, “*Standard Consumer Safety Specification for Full-Size Baby Cribs*,” and ASTM F 406-10a, “*Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*.”

The crib standards that the CPSC is publishing elsewhere in this issue of the Federal Register incorporate all of the requirements currently found in 16 CFR parts 1508 and 1509. Consequently, the requirements found at 16 CFR parts 1508 and 1509 have become redundant. The Commission, therefore, is revoking 16 CFR parts 1508 and 1509 in their entirety.

The Commission emphasizes that the revocation of 16 CFR parts 1508 and 1509 would have no substantive effect on crib safety. The requirements from 16 CFR parts 1508 and 1509 still apply to full-size and non-full-size cribs, but are part of new consumer product safety standards to be codified at 16 CFR parts 1219 and 1220.

### **C. Comment on the Proposal**

In the Federal Register of July 23, 2010 (75 FR 43107), the Commission published a notice of proposed rulemaking proposing to revoke 16 CFR parts 1508 and 1509. We received one comment on the proposal. The comment agreed with the proposed revocation, stating: “The proposed new regulations will be more thorough and comprehensive than the old regulations. It is simply logical to revoke the old outdated 16 CFR parts 1508 and 1509.”

We agree with the comment, and therefore, we are revoking 16 CFR parts 1508 and 1509 entirely.

**D. Paperwork Reduction Act**

This rule would not impose any information collection requirements. Accordingly, this rule is not subject to the Paperwork Reduction Act, 44 U.S.C. 3501–3520.

**E. Environmental Considerations**

This rule falls within the scope of the Commission’s environmental review regulation at 16 CFR 1021.5(c)(1), which provides a categorical exclusion from any requirement for the agency to prepare an environmental assessment or environmental impact statement for rules that revoke product safety standards.

**F. Effective Date**

The final rule to revoke 16 CFR parts 1508 and 1509 becomes effective on [insert date 6 months after date of publication in the FEDERAL REGISTER.] This date corresponds to the effective date of the new mandatory standards developed for full-size and non-full-size cribs.

**List of Subjects in 16 CFR part 1508**

Consumer protection, Cribs and bassinets, Infants and children, Reporting and recordkeeping requirements

**List of Subjects in 16 CFR part 1509**

Consumer protection, Cribs and bassinets, Infants and children, Reporting and recordkeeping requirements

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For the reasons stated above, and under the authority of section 3 of the CPSIA and 5 U.S.C. 553, the Consumer Product Safety Commission removes 16 CFR parts 1508 and 1509 entirely.

PART 1508 - [REMOVED]

1. Under authority of section 3 of the CPSIA, part 1508 is removed entirely.

PART 1509 - [REMOVED]

2. Under authority of section 3 of the CPSIA, part 1509 is removed entirely.

Dated: \_\_\_\_\_.

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Todd A. Stevenson, Secretary  
U.S. Consumer Product Safety Commission



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

## Memorandum

Date: December 1, 2010

This document has been electronically approved and signed.

TO : The Commission  
Todd A. Stevenson, Secretary

THROUGH: Cheryl A. Falvey, General Counsel  
Kenneth R. Hinson, Executive Director

FROM : Robert J. Howell, Assistant Executive Director,  
Office of Hazard Identification and Reduction  
Patricia Edwards, Project Manager,  
Directorate for Engineering Sciences

SUBJECT : Consumer Product Safety Improvement Act of 2008 (CPSIA), Draft Final Rule for Safety Standards for Full-Size and Non-Full-Size<sup>1</sup> Cribs

### I. Introduction

Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA) requires the U.S. Consumer Product Safety Commission (CPSC) to study and develop safety standards for certain infant and toddler products. The list of products in section 104 includes full-size and non-full-size cribs. The Commission is charged with examining and assessing the effectiveness of any voluntary consumer product safety standards and promulgating mandatory consumer product safety standards for these products.

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 voluntary standards. This consultation process commenced in November 2008, with an advance notice of proposed rulemaking (ANPR), in which the Commission asked for input and comments regarding the crib voluntary standards published by ASTM International (formerly known as the American Society for Testing and Materials).

The Commission issued a notice of proposed rulemaking (NPR) in 75 Federal Register 43308, dated July 23, 2010. The proposed rule incorporated by reference the requirements for full-size and non-full-size cribs in the voluntary standards, ASTM F 1169-10, *Standard Consumer Safety Specification for Full-Size Baby Cribs*, and ASTM F 406-10, *Standard Consumer Safety*

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<sup>1</sup> For the purpose of this briefing package, cribs that are not full-size will be referred to as non-full-size cribs. This is how they are referred to in the proposed rule, the current CPSC crib regulation, 16 CFR part 1509 and in the ASTM standard F406-10a. It should be noted that in the CPSIA these products are referred to as either "non full-size," "nonfull-size" or "nonfull-sized" cribs.

*Specification for Non-Full-Size Baby Cribs/Play Yards*, with certain changes to specific provisions in the voluntary standards in order to strengthen the proposed rule. This briefing package presents a final regulatory flexibility analysis to evaluate the possible economic impact of the draft final rule on small businesses, and provides staff's responses to the comments on the NPR, as well as staff's recommendations regarding the draft final rule.

## **II. Incident Data**

The staff's briefing package with the draft proposed rule (i.e., the NPR briefing memo and Tab A)<sup>2</sup> provide a comprehensive and detailed review of the incident data associated with cribs. This data was developed using the Early Warning System (EWS) database, which has been a pilot program at the CPSC since November 2007. As of April 11, 2010, the EWS contained a total of 3,584 incident reports related to all cribs. Of these, 2,395 incidents were identified clearly as involving full-size cribs, 64 involved non-full-size cribs, and 1,125 incidents lacked sufficient information to allow for the classification of the cribs as full-size or non-full-size. A brief overview of the data is provided below. For more details, please refer to Tab A of the NPR briefing package.

### Fatalities

There were a total of 153 fatalities reported to CPSC staff between November 1, 2007, and April 11, 2010, associated with all cribs, of which 36 were attributable to structural problems/failures of cribs.

### Non-Fatal Injuries

A total of 1,703 incidents involving a crib-related injury were reported to CPSC staff between November 1, 2007, and April 11, 2010. The vast majority of the injuries were not serious enough to require any hospitalization. Among the 48 hospitalizations, nearly half were for limb/skull fractures and other head injuries resulting from falls from cribs.

### Non-Injury Incidents

A total of 1,728 of the 3,584 incidents did not have any reported injuries associated with them. These incidents ranged from ones that potentially could have resulted in an injury or fatality, to general complaints or comments from consumers with regard to their cribs.

## **III. Staff's Recommended Changes to the Proposed Standards**

### Full-Size Cribs

Based on a review of the comments and staff's subsequent analysis, staff is recommending one change to the proposed full-size crib standard as published in the NPR. The NPR proposed adopting F 1169-10 with one modification—the elimination of Section 6.12, which states “Screws and bolts that are normally removed or loosened to disassemble the product shall be retightened between the crib side latch testing and the mattress support vertical impact testing.”

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<sup>2</sup><http://www.cpsc.gov/library/foia/foia10/brief/104cribs.pdf>

In the draft final rule, staff continues to recommend the elimination of Section 6.12 and is also recommending adding a statement to the slat/spindle test requirement in Section 7.7.1 to clarify how to test cribs that have folding or sectioned sides. The new section would read as follows:

*“The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage, and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately.”*

This issue was raised in the comments and the clarifying statement was recently approved<sup>3</sup> by ASTM for inclusion in the next version of the full-size crib voluntary standard (see Tab C for a more complete discussion of the comment and issue). The revised ASTM standard containing the new language will not be published until after this briefing package has been received by the Commission. Thus, staff is not recommending referencing this revised version of the standard.

#### Non-Full-Size Cribs

The proposed rule for non-full-size cribs referenced ASTM F 406-10, *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards*, with four modifications. These proposed modifications to the ASTM standard were:

- (1) Replace the mattress support impact test with the test requirement developed by Health Canada and that is also found in the ASTM full-size crib standard.
- (2) Replace the crib side impact tests to make them identical to the crib side tests found in the ASTM full-size crib standard, F 1169-10.
- (3) Restore the side latch test that was in previous versions of the standard and called “*Procedure for Vertical Drop-side Latch Tests*” and rename it Movable Side Latch Test.
- (4) Provide a test order for the testing of non-full-size cribs that is identical to that contained in the ASTM full-size crib standard.

In addition to these four technical modifications, the NPR proposed two editorial changes to F 406-10. Those changes were:

- (1) Limit the standard to non-full-size cribs by excluding any/all sections in F 406-10 that pertained only to play yards.
- (2) Move the recordkeeping requirements from the Appendix to the General Requirements section.

In July 2010, around the time the NPR was published, ASTM balloted and approved several items pertaining to F 406-10. On October 15, 2010, ASTM approved a revised standard, F 406-10a, which contains these balloted changes. Included in the changes are new or revised sections intended to match the four modifications specified in the NPR. Although some of the wording is

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<sup>3</sup> Approval by the ASTM Full-Size Crib Subcommittee occurred during the November 8, 2010 meeting. ASTM approval is expected to occur on December 1, 2010.

different from what the Commission proposed in the NPR, the intent is the same; and staff believes that the wording in the revised ASTM standard (F 406-10a) is either equivalent to, or provides better clarity than, the NPR language. In addition, ASTM also included one of the Commission's proposed editorial changes by moving the recordkeeping requirements to the General Requirements section. Thus, of the six modifications to F 406-10 listed above, ASTM has included five of them in the recently approved revision of the standard, F 406-10a. ASTM made several other changes that were included in the F 406-10a version, many of which were editorial and pertained to moving around section numbers to make the order of the tests, as written, match the order in which they are to be done. There were also changes made to make the two ASTM crib standards more consistent with each other. Staff has reviewed these changes and believes that all but one of them does not diminish the safety protections of the standard. The change that staff does not agree with concerns the retightening of screws/bolts in the testing sequence, as already discussed in the full-size crib recommendations. Thus, staff recommends that the retightening requirement not be included in the non-full-size crib standard.

ASTM issued a second ballot on October 1, 2010, that contained two additional items for the non-full-size crib standard. The balloted items were: (1) add the slat/spindle testing of folding sides (same language as balloted/approved by ASTM for the full-size crib standard), and (2) a wording change to one warning label pertaining to added netting or other covers over play yards. The balloted wording makes the warning label applicable to both rigid non-full-size cribs as well as play yards. Recently, these two balloted items were approved<sup>4</sup> to be incorporated into ASTM F 406. As of the date this briefing package was submitted to the Commission, a revised version of ASTM F 406, including these two changes, had not been published; thus, staff does not recommend referencing this soon-to-be-published revision of F 406.

In light of the changes between F 406-10 and F 406-10a, staff is recommending that the Commission refer to F 406-10a in its draft final non-full-size crib standard. Because ASTM F 406-10a encompasses all four of the technical modifications and one of the editorial changes proposed in the NPR, it is a more comprehensive standard than F 406-10. In addition, staff recommends eliminating the new section that was added to ASTM F 406-10a, pertaining to retightening of screws/bolts between tests. Staff also recommends adding the slat/spindle test procedure clarification for the testing of folding sides, as well as the change in the netting warning, as recently balloted and approved by ASTM for the next upcoming revision of F 406.

#### Summary of Recommended Changes

In summary, staff recommends in its draft final rule for full-size cribs that the Commission adopt the ASTM voluntary standard F 1169-10, with two technical modifications:

- (1) Eliminate section 6.12 *“Screws and bolts that are normally removed or loosened to disassemble the product shall be retightened between the crib side latch testing and the mattress support vertical impact testing.”*
- (2) Add a test procedure clarification to section 7.7.1 for the slat/spindle strength testing of folding sides: *“The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the*

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<sup>4</sup> Approval occurred during the November 9, 2010 ASTM Non-Full-Size Crib/Play Yard Subcommittee meeting and subsequent F15 Main Committee meeting.

*upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage, and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately as described above.”*

In addition, staff recommends that the Commission adopt the ASTM voluntary standard F 406-10a for non-full-size cribs, with three technical modifications, and one editorial change:

- (1) Eliminate section 6.10 “Screws and bolts that are normally removed or loosened to disassemble the product shall be retightened between the crib side latch testing and the mattress support vertical impact testing.”
- (2) Add a test procedure clarification to section 8.10.1 for the slat/spindle strength testing of folding sides: “*The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage, and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately as described above.”*
- (3) Change the warning found in section 9.4.2.6 as follows (~~strikeouts~~ and **bold** indicate changes) “*Child can become entrapped and die when improvised netting or covers are placed on top of **product** ~~a play yard~~. Never add such items to confine child in **product** ~~play yard~~.”*
- (4) Make editorial changes to remove from the non-full-size crib standard the sections of F 406-10a that pertain only to play yards.

#### IV. Effective Date

The NPR proposed a six month effective date for both the full-size and non-full-size crib standards, but requested comments on the impact of such an effective date. As discussed in the staff’s responses to comments, several comments noted the potentially large impact the new crib standards would have on child care centers, and they requested additional time for child care centers to meet the new standards.

CPSC staff considered various options regarding the effective date and is recommending a tiered approach, specifying a six month effective date, but providing two compliance dates: one year for child care facilities and six months for all others subject to the standards. This approach would allow an additional six months for child care facilities to purchase replacement cribs, helping to spread out the impact of the financial burden. In addition, requiring crib manufacturers to meet the standards six months before child care facilities have to provide complying cribs could minimize possible shortages of complying cribs.

## V. Final Regulatory Flexibility Analysis (Tabs A and B)

The Regulatory Flexibility Act (RFA) requires that final rules be reviewed for their potential economic impact on small entities, including small businesses. Section 604 of the RFA requires that CPSC prepare a final regulatory flexibility analysis and make it available to the public for comment when the final rule is published. The final regulatory flexibility analysis must describe the impact of the proposed rule on small entities and identify any alternatives that may reduce the impact on such entities. Under Small Business Administration (SBA) guidelines, a manufacturer is small if it has 500 or fewer employees and an importer is considered small if it has 100 or fewer employees. Retailers and services such as child care facilities and places of public accommodation are considered small if they have \$7 million or less in annual receipts.

### A) Impact on Small Businesses

There are approximately 68 firms currently known to be producing or selling full-size cribs and 17 firms known to be producing or selling non-full-size cribs in the United States. Based on SBA guidelines, 14 non-full-size crib suppliers are small firms (nine domestic manufacturers and five importers) and 48 firms—36 domestic manufacturers, ten domestic importers, and two firms with unknown sources of supply—are small suppliers of full-size cribs.<sup>5</sup> There are probably additional unknown small manufacturers and importers operating in the U.S. market.

Based on SBA guidelines, there are an estimated 23,236 small retail firms that may potentially be affected by the draft final rule. However, it is important to note that only a small percentage of these small firms actually sell cribs. Thus, the number of small retail firms affected will be far fewer than 23,236. Among child care services and accommodation providers, there are roughly 58,364 small child care firms and 42,437 small hotels that could be affected.

#### Small Manufacturers

The impact of the staff-recommended standard on small manufacturers will differ based on whether they are expected to be compliant with ASTM standard F 1169-10 for full-size cribs or F 406-10a for non-full-size cribs. Of the 36 small domestic manufacturers of full-size cribs, 24 produce cribs that are certified by the Juvenile Products Manufacturers Association (JPMA) or that they claim are in compliance with the voluntary standard and of the nine small domestic manufacturers of non-full-size cribs, five are in compliance with the voluntary standard. The impact on the compliant firms is not expected to be significant. It seems unlikely that any of these products will require modification to meet the staff-recommended standards. Should any modifications be necessary, they would most likely take the form of a few minor changes (such as more effective screws or screw combinations).

The staff-recommended standards could have a significant impact on one or more of the 12 firms producing full-size cribs and the four firms producing non-full-size cribs that are not compliant with the voluntary standards, as their products might require substantial modifications. The costs associated with these modifications could include costs for product design, development and marketing staff time, and product testing. There may also be increased production costs,

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<sup>5</sup> There are five firms with unknown supply sources and one domestic manufacturer with insufficient information to determine firm size.

particularly if additional materials are required. The actual cost of such an effort is unknown, but could be significant, especially for the three firms that rely on the production and sale of cribs and related products, such as accompanying furniture and bedding and a fourth firm that produces only one other product. However, the impact of these costs may be mitigated if they are treated as new product expenses that can be amortized.

The scenario described above assumes that only those firms that produce cribs that are certified by JPMA or claim ASTM compliance will pass the voluntary standard's requirements. This is not necessarily the case. CPSC staff has identified many cases in which products not certified by JPMA are actually compliant with the relevant ASTM standard. To the extent that this is true, the impact of the staff-recommended rules will be less significant than described.

#### Small Importers

Four of the ten small importers of full-size cribs and four of the five small importers of non-full-size cribs are not compliant with the voluntary standard, and all would need to find an alternate source of cribs if their existing supplier does not come into compliance with the new requirements of the staff-recommended standards. The cost to importers may increase and they may, in turn, pass some of those increased costs on to their customers. Some importers may respond to the rule by discontinuing the import of their non-complying cribs. However, the impact of such a decision may be lessened by replacing the non-compliant cribs with complying products or other juvenile products. Deciding to import an alternative product would be a reasonable and realistic way to offset any lost revenue given that most small importers import a variety of products.

#### Small Retailers, Child Care Facilities, and Hotels

The CPSIA requires that all cribs sold (or leased) by retailers or provided by child care facilities or places of public accommodation (e.g., hotels) comply with the crib rule.

This means that retailers, most of whom are small, will need to verify that any cribs in their inventory (that they intend to sell or lease after the effective date) and any that they purchase in the future comply with the regulation prior to offering them for sale. It is believed that most retailers, particularly small retailers, do not keep large inventories of cribs. With a six month effective date (with an additional six month compliance period for child care facilities), retailers of new products should have sufficient time and notification to make this adjustment with little difficulty. The situation for retailers of used cribs is more complicated, however, because they may not always be able to determine whether the cribs they receive are compliant. For the affected retailers, it may be simpler to discontinue the sale of used cribs. If cribs represent a small proportion of the products they sell, the impact on these firms may be limited.

Child care facilities would need to provide compliant cribs to their customers. Staff is recommending a tiered approach to the effective date that would establish a six month effective date, but allow an additional six months for child care facilities to comply. This would give child care facilities additional time to purchase and replace their cribs that do not comply with the final rule. Without a longer period for compliance, the impact on small child care facilities would be greater, particularly for those that would have to replace all of their cribs at once. Based on data provided through public comments, it appears that the average child care facility has between

four and 45 cribs, fewer than half of which are likely to be full-size. Cribs cost about \$500, on average. Therefore, if 25 percent are full-size, full-size crib replacement for an individual child care facility could run as high as \$500 to \$5,500 and non-full-size crib replacement could run as high as \$1,500 to \$16,500.<sup>6</sup> The total one-time cost to child care facilities, the majority of which are small, of replacing all of their full-size cribs could be as much as \$97 million,<sup>7</sup> with an additional \$290 million to replace non-full-size cribs.<sup>8</sup> Providing child care facilities with one year to comply with the new crib standards will reduce the impact on child care facilities; however, some child care facilities could still be affected significantly.

There are additional considerations concerning the one-time costs child care providers face. Some may be passed on to customers via small increases in the rates child care providers charge. The recoupment of these costs will take place over an extended period of time, while the initial outlay for new cribs would be much more immediate. Additionally, as several commenters noted, child care facilities are limited in how much of these costs can be passed on to their customers. Some centers could opt to replace their cribs with play yards, which are less expensive than cribs (typically \$100 - \$200), thereby spreading replacement costs over a longer period. While this would reduce the impact of the final rule, the potential cost reduction may be limited by state licensing laws.<sup>9</sup>

Some hotels may provide a few cribs for use by customers. The number of cribs at any one establishment is likely to be low, especially given the likelihood that parents with young children travel with their own sleep products, such as play yards or portable cribs. This is a one-time cost for firms that likely can be passed on to customers over time. Firms, particularly smaller ones, may opt to reduce the replacement costs by ceasing to provide cribs to their customers, replacing only some of their cribs, or providing play yards instead of cribs. Therefore, it is unlikely that the rule will have a significant impact on a substantial number of small firms providing public accommodation.

## ***B) Alternatives***

Under section 104 of the CPSIA, there are alternatives that could reduce the impact on small entities:

1. **Make the voluntary standard mandatory with no modifications.** Adopting the current voluntary standard without any changes could potentially reduce costs for 16 of the 45 small manufacturers and eight of the 15 small importers who are not already compliant with the voluntary standard. However, these firms will still require substantial product changes in order to meet the voluntary standard. Since the staff's changes add little to the overall burden of the staff-recommended rule, adopting the voluntary standard with no changes will not significantly offset the burden that is expected for these firms. Adopting the voluntary standard with no modifications

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<sup>6</sup> Total replacement costs of *all* cribs could run as high as \$2,000 to \$22,500 at an individual child care facility.

<sup>7</sup> For the derivation of this estimate, see footnote 50 of Tab A.

<sup>8</sup> For the derivation of this estimate, see footnote 88 of Tab B.

<sup>9</sup> It should be noted that CPSC staff is not advocating the use of play yards over cribs, but is acknowledging that the choice of play yards over cribs is an option for some child care providers.

could reduce the impact on small retailers and some child care providers, however, if newer cribs in child care facilities and on store shelves have documentation that they are compliant with the appropriate voluntary standard.

2. **Set a tiered six month effective date with a compliance date for child care facilities beyond one year.** Allowing child care centers additional time beyond the one year staff recommends would further reduce the impact of the final rule on small child care centers. It would have no impact on manufacturers, importers, retailers, and places of public accommodation.
3. **Set a one year effective date.** A later effective date will provide additional time for manufacturers of non-compliant cribs to modify their existing cribs. It would also provide importers of non-compliant cribs additional time to ensure that their current suppliers come into compliance with the new rule or to find alternative suppliers. This could reduce the economic impact on small manufacturers and importers. Similarly, it could alleviate any inventory issues for small retailers. This alternative would also allow places of public accommodation additional time to purchase compliant cribs, reducing the impact on small firms.<sup>10</sup> The impact on small child care facilities would be the same as under the staff-recommended approach, as both allow them the same amount of additional time to better absorb the costs of the rule. An even longer effective date would reduce the impact on small child care facilities further.

## VI. Public Comments (Tabs B, C, D, E and F)

The CPSC received 51 comments, including several from child care organizations or proprietors, regarding the notice of proposed rulemaking for cribs (Docket No. CPSC–2010–0075). There were also two comments submitted to the proposed collection of information on recordkeeping requirements under the safety regulations for full-size baby cribs (Docket No. CPSC–2010–0067), which referenced the proposed rulemaking for cribs.

The comments regarding economic impact are addressed in Tab A of this briefing package. Technical comments regarding the proposed rule or the ASTM standards are addressed in Tab C. Human factors issues and incident data comments are addressed in Tabs D and E, respectively. Lastly, miscellaneous or general comments are addressed in Tab F of this briefing package.

Below is a table providing a listing of all the commenters and comment numbers. For a full copy of any or all comments, please visit [www.regulations.gov](http://www.regulations.gov) and review the Public Submissions for Docket No. CPSC-2010-0075 and CPSC-2010-0067.

CPSC-2010-0075		
Comment #	Name	Organization/Affiliation
4	Jae Yoon	None Given
5	Jamie Johnson	None Given
6	Ryan Burr	None Given
7	Timothy Howard	None Given

<sup>10</sup> Although the impact on small retailers and small places of public accommodation are not believed to be significant.

8	A. Slusinskaite	American Military University
9	Tracie Bradford	USAF/Child Development Center
10	Verna Brown	USAF/Child Development Center
11	Lorretta Monroe	None Given
12	Colleen Driscoll	International Organization for Child Safety, Inc.
13	David Hyyti	Night Owl Woodworks
14	Shai Tziony	American Military University
15	David Reynolds	None Given
16	Ken Walsh	Bureau Veritas Testing Laboratories
17	Christine Gebhart	None Given
18	Todd Lehennauer	None Given
19	Julianne Douglas	None Given
20	Kristi Steck	None Given
21	James Frank	None Given
22	Eric Anspach	None Given
23	Miranda Otero	None Given
24	Karl Schmid	None Given
25	Caroline Kennedy	None Given
26	Brenda VanKoughnett	RiverStone Family Child/Care Home
27	Denise VanDerWalker	USAF/Child Development Center
28	A.C. Johnson	Angelique's PipSqueaks
29	David Schwartz	None Given
30	Mary Fitzgerald	None Given
31	Marie Petta	Bugbee Children's Center
32	Marie Darstein	NCCA
33	Judith S. Palfrey, MD	AAP
34	Margaret Szczurek	DVAEYC
35	Judy Kriege	Bananas Inc.
36	Julie Ingersoll	Iowa Department of Human Services
37	Patricia Rowe	Pauline Mayer Shelter and Group Home
38	Michelle Witte	None Given
39	Nancy Cowles	Kids In Danger
40	Donald Mays, Ioana Rusu	Consumers Union
41	Barry Cik	Naturepedic, Inc
42	Eric J. Karolak, Ph.D., et. all	NAFCC
43	Rachel Weintraub	Consumer Federation of America
44	Debbie Patterson	Share and Care Learning Center
45	Robert Waller	JPMA
46	Lisa Thompson	None Given
47	Lisa Thompson (duplicate of #46)	None Given
48	Laura Rosio	None Given
49	Fred Klintworth	None Given
50	Judith Bonig	None Given
51	Marshall Whaling	Learning Care Group
52	Peter Winik	Knowledge Learning Group
53	Anonymous	None Given
54	No name provided	China - WTO/TBT Standard and Regulation Research Center
55	Sessy Nyman	Illinois Action for Children
	<b>CPSC-2010-0067</b>	
3	Beth Walling	None Given
4	Brian McDowell	None Given

Most comments supported the proposed rule, including the proposed modifications to the ASTM standards. The comments raise a variety of issues that staff has addressed in its response memoranda. A listing of these issues and where to find staff's responses are outlined below:

**Economic Issues (Tab A)**

Retrofitting Older Cribs  
Play Yard Use in Child Care Facilities  
Elimination of Quality Crib Models  
Pass Through of Expected Cost to Child Care Facilities  
Financial Burden on Child Care Facilities  
Effective Date for Non-Full-Size Cribs

**Technical Comments (Tab C)**

Slat Strength Testing for Folding Cribs  
Definition of Folding vs. Movable Sides  
Rocking Crib Test Procedure  
Retightening Screws Allowance  
Captive Hardware Requirements/Encouragement  
Test Mattress for Non-Full-Size Crib Mattress Support Test

**Human Factors Related Issues (Tab D)**

Replacement Mattresses in Non-Full-Size Cribs  
Misassembly of Cribs  
The Utility of Drop-Side Cribs  
Fall Hazards  
Side Heights

**Incident Data Comments (Tab E)**

Incidents in Child Care Facilities

**General and Miscellaneous Comments (Tab F)**

Drop Side Cribs are Not the Only Problem  
Mesh/Non-rigid Full-Size Cribs  
Expiration Date/Definition of Useful Life of a Crib  
Crib Mattress Standards/Regulations  
Play Yard Use and Future Regulation  
Use of International Standards  
Applicability of Standards to Cribs in Child Care Facilities  
Commercial vs. Noncommercial Cribs  
Enforcement Policy for Commercial Use Cribs  
Waiving Requirements for Child Care Facilities  
Longer Effective Date for Cribs in Child Care Facilities  
Concern about Continually Replacing Cribs  
Continued Use of Cribs by Consumers  
Testing by Firewalled Labs  
Formaldehyde Emissions

Miscellaneous Clarifications  
Extra/Soft Bedding

## **VII. Staff Recommendations**

Staff is recommending one change to the NPR with regard to the full-size crib standard as outlined earlier in this memo and in Tab C. The staff-recommended full-size crib standard is essentially the same as, and where it differs, more stringent than, the voluntary standard for full-size cribs, ASTM F 1169-10.

Staff is recommending three technical changes to the NPR with regard to the non-full-size crib standard as outlined earlier in this memo and in Tab C, including referencing a more recent version of the ASTM voluntary standard, F 406-10a. The staff-recommended non-full-size crib standard is essentially the same as, and where it differs, more stringent than, the voluntary standard for non-full-size cribs, ASTM F 406-10a.

In addition, staff is recommending an editorial change to remove from the non-full-size crib standard the sections of F 406-10a that pertain only to play yards.

Regarding the effective date, the staff is recommending a six month effective date with two compliance dates: one year for child care facilities and 6 months for all others subject to the rule.

**TAB A:**  
**Final Regulatory Flexibility Analysis of Staff-Recommended  
Final Standard for Full-Size Cribs**



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

**Memorandum**

Date: November 1, 2010

TO : Patricia L. Edwards  
Project Manager, Cribs  
Division of Mechanical Engineering  
Directorate for Engineering Sciences

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

Deborah V. Aiken, Ph.D.  
Senior Staff Coordinator  
Directorate for Economic Analysis

FROM : Jill L. Jenkins, Ph.D.  
Economist  
Directorate for Economic Analysis

SUBJECT : Final Regulatory Flexibility Analysis of Staff-Recommended Final Standard for Full-Size Cribs

**Introduction**

On August 14, 2008, the Consumer Product Safety Improvement Act (CPSIA) was enacted. Among its provisions, section 104 of the CPSIA requires that the Consumer Product Safety Commission (CPSC) evaluate the currently existing voluntary standards for durable infant or toddler products and promulgate mandatory standards substantially the same as, or more stringent than, the applicable voluntary standards. Full-size cribs are among the durable products specifically named in section 104.

The Commission proposed adopting the voluntary ASTM International (formerly known as the American Society for Testing and Materials) standard for full-size baby cribs (F 1169-10) with one modification.<sup>11</sup> CPSC staff now recommends that the Commission issue a final rule that would adopt ASTM F 1169-10 with two changes: 1) modify the test procedures for spindle/slat strength to accommodate cribs with folding sides; and 2) eliminate the ASTM standard's provision allowing screws to be retightened between tests (this change was also in the proposed rule). CPSC staff is also recommending a six-month effective date with two compliance dates: one year for child care facilities and six months for all others subject to the rule.

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<sup>11</sup> The modification disallowed the retightening of screws during the testing process.

The Regulatory Flexibility Act (RFA) requires that final rules be reviewed for their potential economic impact on small entities, including small businesses. Section 604 of the RFA requires that CPSC staff prepare a final regulatory flexibility analysis and make it available to the public for comment when the final rule is published. The final regulatory flexibility analysis must describe the impact of the proposed final rule on small entities and identify any alternatives that may reduce the impact. Specifically, the final regulatory flexibility analysis must contain:

1. a succinct statement of the objectives of, and legal basis for, the rule;
2. a summary of the significant issues raised by public comments in response to the initial regulatory flexibility analysis, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments;
3. a description of and, where feasible, an estimate of the number of small entities to which the rule will apply;
4. a description of the projected reporting, recordkeeping, and other compliance requirements of the rule, including an estimate of the classes of small entities subject to the requirements and the type of professional skills necessary for the preparation of reports or records; and
5. a description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.

## **The Product**

Full-size cribs are beds designed to provide sleeping accommodations for infants. They have the following interior dimensions:

- $28 \pm 5/8$  in. ( $710 \pm 16$  mm) wide; and
- $52 \frac{3}{8} \pm 5/8$  in. ( $1330 \pm 16$  mm) long.

Any accessories that come with the full-size crib are also covered by the staff-recommended final rule, as well as ASTM standard F 1169-10, although those accessories must also comply with the relevant ASTM standard (i.e., a bassinet accessory must comply with the full-size crib standard, as well as the bassinet/cradle standard).<sup>12</sup>

## **The Market for Full-Size Cribs**

Typically, full-size cribs are produced and/or marketed by juvenile product manufacturers and distributors, or by furniture manufacturers and distributors, some of which have separate divisions for juvenile products. There are currently at least 68 manufacturers or importers

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<sup>12</sup> ASTM International, *Standard Specification for Full-Size Baby Crib* (F 1169-10).

supplying full-size cribs to the U.S. market. Ten firms are domestic importers (15 percent), 42 firms are domestic manufacturers (62 percent), seven firms are foreign manufacturers (ten percent), and two firms are foreign importers (three percent). There was insufficient information on the remaining seven firms to determine whether they were importers or manufacturers.<sup>13</sup>

The Juvenile Products Manufacturers Association (JPMA), the major U.S. trade association representing juvenile product manufacturers and importers, runs a voluntary certification program for several juvenile products.<sup>14</sup> Approximately 30 firms (44 percent) supply full-size cribs to the U.S. market that have been certified by JPMA as compliant with the ASTM voluntary standard F 1169-09. Additionally, 15 firms claim compliance, although their products have not been certified by JPMA. It is assumed throughout this analysis that the 45 firms that provide cribs that are certified or claim to be compliant with earlier ASTM standards will remain compliant with ASTM standard F 1169-10.

According to a 2005 survey conducted by the American Baby Group (*2006 Baby Products Tracking Study*),<sup>15</sup> 90 percent of new mothers own cribs. Approximately 36 percent of wooden cribs and 50 percent of metal cribs were handed down or purchased second-hand.<sup>16</sup> Using an average weighted by the ownership of each type of crib (83 percent for wooden and 7 percent for metal), it is estimated that approximately 37 percent of all cribs were handed down or purchased second-hand.<sup>17</sup> Thus, about 63 percent of cribs were acquired new. This suggests annual sales of about 2.4 million cribs to households (.63 x .9 x 4.3 million births per year).<sup>18</sup> To the extent that new mothers own more than one crib, annual sales may be underestimated. Based on a review of the U.S. market, it appears that there are approximately 591 full-size crib models and 81 non-full-size crib models currently being supplied. Therefore, approximately 88 percent of the crib models on the U.S. market are full-sized. Applying this percentage to the number of cribs sold annually, yields an estimate of 2.1 million full-size cribs sold annually. However, this is a rough estimate, since the percentage of full-size crib models on the market does not necessarily correlate directly to sales.

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<sup>13</sup> Determinations were made using information from Dun & Bradstreet and ReferenceUSAGov, as well as firm websites. Manufacturers include traditional manufacturers, as well as firms that send out their designs to be manufactured, and firms that import as well, but are primarily manufacturers.

<sup>14</sup> JPMA has run this certification program since 1976, beginning with high chairs. Products voluntarily submitted by manufacturers are tested against the appropriate ASTM standard and only passing products are allowed to display JPMA's Certification Seal. See <http://www.jpma.org/content/safety/overview> for more information.

<sup>15</sup> The data collected for the *Baby Products Tracking Study* does not represent an unbiased statistical sample. The sample of 3,600 new and expectant mothers is drawn from American Baby magazine's mailing lists. Also, since the most recent survey information is from 2005, it may not reflect the current market.

<sup>16</sup> The data on second-hand products for new moms was not available. Instead, data for new mothers and expectant mothers was combined and broken into first-time mothers and experienced mothers. Data for first-time mothers and experienced mothers has been averaged to calculate the approximate percentage of cribs that were handed down or purchased second-hand.

<sup>17</sup> Of the 83 percent of mothers who own wooden cribs, 36 percent of those mothers own cribs that were handed down or purchased second-hand; of the 7 percent of mothers who own metal cribs, 50 percent of those mothers have used cribs.

<sup>18</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, National Vital Statistics System, "Births: Preliminary Data for 2007," *National Vital Statistics Reports* Volume 57, Number 12 (March 18, 2009): 6 (Table 1). Number of live births in 2007 is rounded from 4,317,119.

Section 104(c) of the CPSIA operates such that when the Commission's crib standards take effect, in addition to applying to manufacturers and importers of new full-size cribs, they will apply to retailers of both new and used full-size cribs.<sup>19</sup> They will also apply to child care facilities and places of public accommodation, such as hotels, that supply full-size cribs to their patrons. Based on public comments received from child care facilities in response to the notice of proposed rulemaking (NPR), it appears that child care facilities typically use a mix of full-size and non-full-size cribs,<sup>20</sup> but primarily non-full-size cribs. However, it is still assumed that places of public accommodation tend to provide non-full-size cribs to their customers, as opposed to the more unwieldy full-size cribs. The number of firms that may be selling or providing full-size cribs is unknown, but may be drawn from approximately 24,985 retail firms (at least 5,292 of which sell used products),<sup>21</sup> 59,555 firms supplying child care services,<sup>22</sup> and 43,303 firms providing public accommodation<sup>23</sup> that may be supplying new or used full-size cribs to the public.<sup>24</sup>

### **Reason for Agency Action and Legal Basis for the Draft Final Rule**

Section 104 of the CPSIA requires the CPSC to promulgate a mandatory standard for full-size cribs that is substantially the same as, or more stringent than, the voluntary standard. The CPSC staff worked closely with ASTM to address several known hazards for the most recent version of the ASTM standard for full-size cribs (F 1169-10).<sup>25</sup> In addition, the NPR removed the provision in ASTM 1169-10 that allowed retightening screws between tests, which CPSC

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<sup>19</sup> For simplicity, it is assumed that new full-size cribs available for sale from manufacturers or importers who are no longer in the business of supplying full-size cribs come from retailer inventories, rather than manufacturer/importer inventories. To the extent that this is not true, the burden of assuring full-size crib compliance with the new standard would be shared between the manufacturer/importer and the retailer, rather than be borne entirely by the retailer.

<sup>20</sup> For the purpose of this memo, cribs that are not full-size will be referred to as non-full-size cribs. This is how they are referred to in the current CPSC crib regulation, 16 CFR 1509, and in the ASTM standard F 406-10a. It should be noted that in the CPSIA these products are referred to as either "nonfull-size" and "nonfull-sized" cribs.

<sup>21</sup> The NAICS codes (and product line codes) used are: 4421 (20240), 4421 (20344), 45439 (20340), 4521 (20344), 45291 (20344), 45299 (20344), 45411 (20340), and 4533 (20340). Data on firms is extrapolated from the 2006 U.S. Census data, which has firm information, using 2007 Census data, which has more detailed product line information. For example, the 4421 NAICS code has a ratio of 21,242 firms for 29,245 establishments, or a ratio of 1.38 establishments for each firm. Applying this to the number of establishments for the more detailed 4421 (20240) line (50 establishments) yields approximately 36 firms. The same procedure is followed for each NAICS (product line) code and then summed. It is likely that some of the 1,028 electronic shopping retailers sell used products as well, but a precise estimate cannot be made.

<sup>22</sup> The NAICS code used is 6244.

<sup>23</sup> The NAICS code used is 7211.

<sup>24</sup> Note that this number is likely to be high, because not every retailer sells full-size cribs, and not every child care facility or hotel provides them. For example, not all of the stores selling bedroom furniture will necessarily sell cribs, and some child care facilities may use play yards instead of cribs, or only use non-full-size cribs. Sources include: Economic Census data from 2007 (<http://www.census.gov/econ/census07/>), Statistics of U.S. Business, *Number of Firms, Number of Establishments, Employment, and Annual Payroll by Employment Size of the Enterprise for the United States, All Industries 2006* (<http://www.census.gov/econ/susb/>), and SBA, *Employer Firms, and Employment by Employment Size of Firm by NAICS Codes, 2006* ([http://www.sba.gov/advo/research/us06\\_n6.pdf](http://www.sba.gov/advo/research/us06_n6.pdf)).

<sup>25</sup> The most recent changes to ASTM F 1169 are outlined in the memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated May 26, 2010, Subject: Proposed Change to ASTM F 1169-10, Standard Consumer Safety Specification for Full-Size Baby Crib, for Incorporation in Staff's Draft Proposed Rule.

staff believes will create a more robust testing standard and thereby reduce fatalities and injuries.<sup>26</sup> In response to public comments, staff recommends retaining this change in the NPR and modifying the test procedures for the draft final rule to accommodate cribs with folding sides.<sup>27</sup> CPSC staff is also recommending that child care facilities have one year to comply with the standard to help mitigate the significant burden the draft final standard will place upon these entities and to allow sufficient time for compliant cribs to become available for purchase.<sup>28</sup>

## Compliance Requirements of the Draft Final Rule

CPSC staff recommends adopting the voluntary ASTM standard (F 1169-10) for full-size cribs with two modifications. Some of the more significant components of the 2010 ASTM standard for full-size cribs (F 1169-10) include (requirements that are new or modified for the 2010 standard are italicized):

- Dynamic impact testing of mattress support system—intended to address incidents involving collapse or failures of mattress support systems. *The 2010 standard updated the tests to address fatigue of mattress support brackets, support hardware, and mattress support due to children jumping in cribs.*
- Impact testing of side rails and slat strength/integrity—intended to prevent slats and spindles from breaking and/or detaching during use. *The requirements were made more stringent for the 2010 standard. The modification was intended to prevent entrapments by reducing the likelihood of slat/spindle breakage and the gaps that accompany them.*
- Evaluation of mattress support attachment to crib—intended to ensure that the mattress support does not become detached from the frame, potentially resulting in a fall.<sup>29</sup>
- Latching mechanism tests—intended to ensure that latching and locking mechanisms work as intended, preventing unintended folding while in use. Also requires that they be used with drop gates and movable sides.
- Crib side configurations—intended, in part, to limit movable (drop-) sides. Addresses the numerous incidents related to drop-side failures.
- Label requirements—*the required warnings were updated for the 2010 standard to emphasize fall hazards.*

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<sup>26</sup> Ibid.

<sup>27</sup> Memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated November 1, 2010, Subject: Staff Response to Technical Comments on the Notice of Proposed Rulemaking for Full-Size and Non-Full-Size Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

<sup>28</sup> Memorandum from Patricia L. Edwards, Project Manager for Cribs, Directorate for Engineering Sciences and Patricia M. Pollitzer, GCRA, Office of the General Council, dated November 1, 2010, Subject: Staff Response to General Comments on the Notice of Proposed Rulemaking for Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

<sup>29</sup> The difference between the dynamic impact testing on the mattress support system and the evaluation of the mattress support attachment is that the former involves repeatedly dropping a weight and the latter involves gradually pressing in a set weight (25 pounds). Both tests address the integrity of the mattress support system.

- Openings requirement for mattress support systems—*a new requirement for the 2010 standard that addresses gaps in the mattress support system to minimize the possibility of entrapment.*
- Requirements for wood screws and other fasteners—*a new requirement for the 2010 standard that addresses hazards that exist when wood screws are the primary method of attachment. Also includes other fastener requirements to address incidents related to loose hardware and poor structural integrity.*
- Cyclic testing—*a new requirement for the 2010 standard that addresses incidents involving failures of non-drop-side hardware and poor structural integrity. It was taken from the Canadian standard and simulates long-term shaking by a child.*
- Misassembly issues—*a new requirement for the 2010 standard where it must either be impossible to misassemble key elements or those elements must have markings that make it obvious when they have been misassembled.*
- Test requirement for accessories—*a new requirement for the 2010 standard that is intended to address any full-size cribs that may now or in the future include accessories such as bassinets or changing tables.*
- Crib interior dimensions—*a new requirement for the 2010 standard that is taken directly from the CPSC's mandatory regulation and intended to ensure that all full-size cribs have the same interior dimensions.*
- Component spacing—*a new requirement for the 2010 standard that is taken directly from the CPSC's mandatory regulation and intended to prevent child entrapment between both uniformly and non-uniformly spaced components, such as slats.*

There are also a number of other requirements, such as small parts, that are not outlined in detail here.

CPSC staff recommends modifying ASTM standard F 1169-10 to no longer allow screws to be retightened. This modification would no longer allow any retightening of screws during crib testing, thereby harmonizing with the Canadian standard. CPSC staff believes that the combination of crib tests in the standard effectively simulates a lifetime of crib use and that retightening screws disrupts this re-creation.<sup>30</sup> In addition, the staff believes that its recommended modification should address loose screws.<sup>31</sup>

Based on Health Canada testing results for one of the tests (shake test), it appears that only the most poorly constructed cribs will fail when their screws are not retightened during testing. Initial follow-up testing by CPSC staff found that allowing retightening over the entire series of tests could result in this very dangerous hazard going unnoticed during testing. The incidence of failure during testing when screws are not retightened may be lower under the F 1169-10 standard, due to new requirements that will mandate that crib hardware include a locking device or other method to impede loosening.<sup>32</sup> Based on this information, it appears that few, if any,

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<sup>30</sup> Memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated May 26, 2010, Subject: Proposed Change to ASTM F 1169-10, Standard Consumer Safety Specification for Full-Size Baby Crib, for Incorporation in Staff's Draft Proposed Rule.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

firms will need to use better screw mechanisms or redesign their products to comply with the staff-recommended modification.

CPSC staff also recommends modifying the test requirements of F 1169-10 to accommodate cribs with folding sides. Staff does not believe that product modification will be required to meet the revised test requirements. However, test costs might be impacted minimally, as testing for these cribs would likely require an additional set up to ensure that each portion of the folding side passes the spindle/slat tests.<sup>33</sup>

## Issues Raised by Public Comments

There were several issues raised by public comments in response to the initial regulatory flexibility analysis. These include concerns about the cost impact of the proposed rule, particularly for child care providers. Commenters were also concerned about the ability of child care facilities to pass through costs to their customers or substitute play yards as methods of reducing the impact of the proposed rule. Child care providers requested methods of checking older cribs for compliance and possibly retrofitting rather than replacing older cribs. One commenter was concerned about crib suppliers being driven out of business. These comments and their responses are presented in their entirety in Appendix A. They have also been addressed, as appropriate, within this analysis. In particular, several alternatives to the standard six-month effective date are considered in the final regulatory flexibility analysis as possible ways to help mitigate the significant burden the draft final standard will place upon small child care facilities.<sup>34</sup>

In addition to the comments directed at the initial regulatory flexibility analysis, there were comments received from the public that resulted in modifications to the final draft standard that has affected the final regulatory flexibility analysis for full-size cribs. First, the test procedures for spindle/slat strength have been expanded to accommodate cribs with folding sides, ensuring that both parts of the folding side are tested.<sup>35</sup> Second, staff recommends allowing one year from publication of the final rule for child care centers to comply in order to allow sufficient time for compliant cribs to become available for purchase, as well as to allow centers to better absorb the additional costs of the rule.<sup>36</sup>

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<sup>33</sup> Memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated November 1, 2010, Subject: Staff Response to Technical Comments on the Notice of Proposed Rulemaking for Full-Size and Non-Full-Size Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

<sup>34</sup> Memorandum from Patricia L. Edwards, Project Manager for Cribs, Directorate for Engineering Sciences and Patricia M. Pollitzer, GCRA, Office of the General Council, dated November 1, 2010, Subject: Staff Response to General Comments on the Notice of Proposed Rulemaking for Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

<sup>35</sup> Memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated November 1, 2010, Subject: Staff Response to Technical Comments on the Notice of Proposed Rulemaking for Full-Size and Non-Full-Size Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

<sup>36</sup> Memorandum from Patricia L. Edwards, Project Manager for Cribs, Directorate for Engineering Sciences and Robert J. Howell, Assistant Executive Director, Office of Hazard Identification and Reduction, dated December 1, 2010, Subject: Consumer Product Safety Improvement Act of 2008 (CPSIA), Draft Final Rule for Safety Standards for Full-Size and Non-Full-Size Cribs.

## Other Federal or State Rules

CPSC staff has identified at least one locality (Suffolk County, New York) that has banned drop-side cribs.<sup>37</sup> Additionally, some states have crib laws. For example, California has a crib law that refers to both 16 CFR 1508/1509 and ASTM F 1169.<sup>38</sup>

## Impact on Small Businesses

There are approximately 68 firms currently known to be producing or selling full-size cribs in the United States. Under Small Business Administration (SBA) guidelines, a manufacturer of full-size cribs is small if it has 500 or fewer employees, and an importer is considered small if it has 100 or fewer employees. Based on these guidelines, 48 firms—36 domestic manufacturers, ten domestic importers, and two firms with unknown sources of supply—are small.<sup>39</sup> There are probably additional unknown small manufacturers and importers operating in the U.S. market.

According to the SBA, retailers and services such as child care facilities and places of public accommodation are considered small if they have \$7 million or less in annual receipts. Approximately 93 percent of retailers have receipts of less than \$5 million, with an additional 3 percent having receipts between \$5 million and \$9.99 million.<sup>40</sup> Excluding firms with receipts of between \$5 million and \$7 million yields an estimated 23,236 small retail firms that may potentially be affected by the draft proposed rule.<sup>41</sup> However, it is important to note that only a small percentage of these small firms actually sell full-size cribs. Thus, the number of small retail firms affected will be far fewer than 23,236. Among child care service providers, approximately 98 percent have receipts of less than \$5 million with an additional 0.9 percent having receipts between \$5 million and \$9.99 million. This suggests that there are roughly 58,364 small child care firms (of 59,555) that could be affected.

### *Small Manufacturers*

The impact of the staff-recommended standard on small manufacturers will differ based on whether or not they are expected to be compliant with ASTM standard F 1169-10. Of the 36 small domestic manufacturers, 24 produce cribs that are certified by JPMA or claim to be in compliance with the voluntary standard. The impact on the 24 compliant firms is not expected to be significant. It seems unlikely that any of these products will require modification to meet the staff-recommended standard. Should any modifications be necessary, they would most likely take the form of a few minor changes (such as more effective screws or screw combinations).

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<sup>37</sup> See [http://www.northshoreoflongisland.com/Articles-i-2009-10-15-81784.112114-sub\\_Dropside\\_crib\\_ban\\_passes.html](http://www.northshoreoflongisland.com/Articles-i-2009-10-15-81784.112114-sub_Dropside_crib_ban_passes.html) and [http://www.nypost.com/p/news/local/suffolk\\_county\\_first\\_to\\_ban\\_drop\\_WfDyjRp5byPK47fLVnTrVP](http://www.nypost.com/p/news/local/suffolk_county_first_to_ban_drop_WfDyjRp5byPK47fLVnTrVP).

<sup>38</sup> See <http://law.justia.com/california/codes/hsc/24500-24506.html>.

<sup>39</sup> There are five firms with unknown supply sources and one domestic manufacturer with insufficient information to determine firm size.

<sup>40</sup> SBA, *Employer Firms, Establishments, Employment, Annual Payroll, and Receipts by Receipts Size of Firm and Major Industry using NAICS, 2002* ([http://www.sba.gov/advo/research/us\\_rec\\_mi.pdf](http://www.sba.gov/advo/research/us_rec_mi.pdf)).

<sup>41</sup> It was not possible to break out the firms with receipts between \$5 million and \$7 million from firms with receipts in the \$5 million to \$9.99 million range.

The staff-recommended standard could have a significant impact on one or more of the 12 firms that are not compliant with the voluntary standard, because their products might require substantial modifications. The costs associated with these modifications could include costs for product design, development and marketing staff time, and product testing. There may also be increased production costs, particularly if additional materials are required. The actual cost of such an effort is unknown, but could be significant, especially for the two firms that rely primarily or entirely on the production and sale of full-size cribs and related products, such as accompanying furniture and bedding, and for a third firm that produces only one other product. However, the impact of these costs may be mitigated if they are treated as new product expenses that can be amortized.

The scenario described above assumes that only those firms that produce cribs that are certified by JPMA or that claim ASTM compliance will pass the voluntary standard's requirements. This is not necessarily the case. CPSC staff has identified many cases where products that are not certified by JPMA are actually compliant with the relevant ASTM standard. To the extent that this is true, the impact of the staff-recommended rule will be less significant than described.

### ***Small Importers***

While four of the ten small importers are not compliant with the voluntary standard, all would need to find an alternate source of full-size cribs if their existing supplier does not come into compliance with the new requirement of the staff-recommended standard. The cost to importers may increase and they, in turn, may pass on some of those increased costs to their customers.<sup>42</sup> Some importers may respond to the rule by discontinuing the import of their non-complying cribs. However, the impact of such a decision may be lessened by replacing the non-compliant cribs with complying products or other juvenile products. Deciding to import an alternative product would be a reasonable and realistic way to offset any lost revenue given that most small importers import a variety of products.

### ***Small Retailers and Child Care Facilities***

The CPSIA requires that all full-size cribs sold (or leased) by retailers or provided by child care facilities to their customers comply with the full-size crib rule.<sup>43</sup>

This means that retailers, most of which are small, will need to verify that any full-size cribs in their inventory (that they intend to sell or lease after the effective date), and any that they purchase in the future, comply with the regulation prior to offering the cribs for sale. It is believed that most retailers, particularly small retailers, do not keep large inventories of cribs. With the six month effective date (with an additional six month compliance period for child care facilities), retailers of new products should have sufficient notification and time to make this

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<sup>42</sup> These products would also be expected to be higher quality given the additional safety requirements.

<sup>43</sup> The CPSIA also requires places of public accommodation to comply with the crib rule. However, because the staff assumes that these firms provide non-full-size cribs for their customers, the effect of the rule on them is considered in the analysis concerning non-full-size cribs at Tab B of the briefing package.

adjustment with little difficulty. The situation for retailers of used cribs is more complicated, however, because they may not always be able to determine whether the full-size cribs they receive are compliant. For affected retailers, it may be simpler to discontinue the sale of used full-size cribs. If cribs represent a small proportion of the products they sell, the impact of the rule on these firms may be limited.

Child care facilities would need to provide compliant cribs to their customers; however, staff recommends a tiered approach that would require a six month effective date, but allow an additional six months for child care facilities to comply. This would give child care facilities additional time to find, purchase and replace their cribs that do not comply with the final rule. Without a longer period for compliance, the impact on small child care firms would be greater, particularly for those that would have to replace all of their cribs at once. Based on data provided through public comments, it appears that the average child care facility has between four and 45 cribs, fewer than half of which are likely to be full-size. Each crib costs about \$500.<sup>44</sup> Therefore, if 25 percent are full-size cribs, replacement of full-size cribs for an individual child care facility could run from \$500 to as high as \$5,500.<sup>45</sup> The total one-time cost to child care facilities, the majority of which are small, of replacing their full-size cribs is estimated to be approximately \$97 million nationwide.<sup>46</sup> The staff recommended approach of allowing child care facilities one year to comply with the new crib standards will reduce the impact on child care facilities; however, some child care facilities could still be affected significantly.

There are additional considerations concerning the one-time costs child care providers face. Some of the costs may be passed on to customers via small increases in the rates child care providers charge. The recoupment of these costs for child care providers will take place over an extended period, while the initial outlay for new cribs would be much more immediate. Additionally, as several commenters noted, child care facilities are limited in how much of these costs can be passed on to their customers.<sup>47</sup> Some centers could opt to replace their full-size cribs with play yards, which are less expensive than full-size cribs (typically \$100 - \$200), thereby

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<sup>44</sup> The cost information provided ranged from \$100 to more than \$500. However, the lower cost products appear to be play yards rather than cribs. Since \$500 or more than \$500 was a frequently supplied answer, it was selected for this analysis. It also takes into account any incidental costs of disassembling older cribs and disposing of them, as well as the assembly of the new cribs, which one commenter estimated as being approximately \$23 per crib.

<sup>45</sup> Similar costs apply to the replacement of non-full-size cribs, so total replacement costs of *all* cribs could run as high as \$2,000 to \$22,500.

<sup>46</sup> The total one-time cost of both the full-size and non-full-size final rules if all cribs must be replaced is estimated to be approximately \$387 million. Using the data source provided by one commenter and removing from consideration the children in weekly relative care arrangements (some of whom may be in child care facilities that happen to be run by family members, thereby biasing the estimate downward), yields 774,180 children less than one year of age in non-parental, non-relative child care arrangements each week. Assuming that one crib is provided for each child yields a total one-time replacement cost of approximately \$387 million (774,180 children under one year of age x \$500 per crib). Assuming 25 percent of those cribs are full-size, the cost of their replacement is approximately \$97 million. Iruka, I. U., and Carver, P. R. (2006). Initial Results from the 2005 NHES Early Childhood Program Participation Survey (NCES 2006-075). U.S. Department of Education. Washington, DC: National Center for Education Statistics, Table 1. (<http://nces.ed.gov/pubs2006/2006075.pdf>).

<sup>47</sup> One commenter states that approximately 35 percent of the children in their care (more than 150,000) receive some form of state subsidy. For another provider, it is approximately one-third of the children in their care. Raising rates above what customers can bear has the potential to deprive families of child care or force them into alternative child care arrangements that may not be subject to the final rule. The latter possibility has the potential for safety risks in excess of those that currently exist in child care facilities..

spreading replacement costs over a longer period. While this would reduce the impact of the final rule, the potential cost reduction may be limited by state licensing laws.<sup>48</sup>

## Alternatives

Under section 104 of the CPSIA, there are three alternatives that could reduce the impact on small entities:

- 1. Make the voluntary standard mandatory with no modifications.** Adopting the current voluntary standard without any changes could potentially reduce costs for 12 of the 36 small manufacturers and four of the ten small importers who are not already compliant with the voluntary standard. However, these firms will still require substantial product changes in order to meet the voluntary standard. Since the staff's changes add little to the overall burden of the staff-recommended rule, adopting the voluntary standard with no changes will not significantly offset the burden that is expected for these firms. Adopting the voluntary standard with no modifications could reduce the impact on small retailers and some child care providers, however, to the extent that newer full-size cribs in child care facilities and on store shelves have documentation that they are compliant with ASTM F 1169-10.
- 2. A tiered six month effective date with a compliance date for child care facilities beyond one year.** Allowing child care centers additional time beyond the one year staff recommends would further reduce the impact of the final rule on small child care centers. It would have no impact on manufacturers, importers, retailers, and hotels.
- 3. Set a one year effective date.** A later effective date will provide additional time for manufacturers of non-compliant cribs to modify their existing cribs. It would also provide importers of non-compliant cribs additional time to ensure that their current suppliers come into compliance with the new rule or to find alternative suppliers. Similarly, it could alleviate any inventory issues for small retailers. This alternative would also allow places of public accommodation additional time to purchase compliant cribs, reducing the impact on small firms.<sup>49</sup> The impact on small child care facilities would be the same as under the staff-recommended approach, as both allow them the same amount of additional time to better absorb the costs of the rule. An even longer effective date would reduce the impact on small child care facilities further.

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<sup>48</sup> It should be noted that CPSC staff is not advocating the use of play yards over cribs, but is acknowledging that the choice of play yards over cribs is an option for some child care providers.

<sup>49</sup> Although the impact on small retailers and small places of public accommodations are not believed to be significant.

## **Appendix A: Response to Public Comments**

Presented below are the comments and responses CPSC staff believes are directed toward the initial regulatory flexibility analysis for full-size cribs and/or non-full-size cribs.

### **Comment**

Three child care providers requested that the CPSC provide methods of checking whether their current cribs would meet the new standards. They also requested that the final rule include descriptions of how to fix cribs that fail a particular requirement (i.e., retrofit), as a way to limit the number of new cribs that must be purchased. Retrofits to handle drop-side cribs were mentioned, in particular.

### **Response**

Section 104(c) of the CPSIA requires child care facilities to provide cribs that comply with the new crib standards once they are in effect. The standards not only effectively prohibit traditional drop-sides, but have complex requirements, such as those for hardware, that make it difficult to determine whether an existing crib would meet the new standards without testing that individual crib. Because the crib would be destroyed in the process of testing, it is impossible to test each crib. Therefore, the CPSC cannot provide methods to check existing cribs for compliance with the CPSC's new crib standards. The CPSC staff also notes that retrofits that would be appropriate for a recall might not be sufficient for meeting the requirements of the new standards. For example, immobilizers have been offered in the past by manufacturers to address drop-side hazards on recalled cribs. This retrofit would not be sufficient to meet the crib standards. An immobilizer merely covers up part of the drop-side hardware and makes the drop-side unusable while in place, but it would not prevent a user from removing the retrofit and using the drop-side again.

### **Comment**

Two commenters expressed concern about using play yards as an alternative to cribs in child care facilities as a way of mitigating costs to child care providers. Both felt this alternative might be perceived as advocating the use of play yards, which they felt would decrease the safety and quality of care. A third commenter noted that play yards are not an option for some child care facilities, depending upon state licensing laws.

### **Response**

The purpose of the initial regulatory flexibility analysis was to evaluate the proposed rule and its likely impact on small entities. Since it is known that some child care facilities use play yards rather than full-size or non-full-size cribs, the analysis assumed that some child care providers might opt to rely on existing or new play yards as a way to reduce their replacement costs in the

short run. CPSC staff was not advocating the use of play yards over cribs in child care environments.

### **Comment**

One commenter said that despite the high quality of the cribs used at her child care facility and a complete lack of incidents there, they have been informed that their cribs do not meet the proposed standard. She expressed concern that “the standards could be eliminating a company that produces extremely high quality materials and are very safety conscious.”

### **Response**

The staff-recommended final rule may eliminate particular crib models from the marketplace. However, these crib models will likely be replaced by modified versions that are compliant with the new standard. The staff-recommended final rule is unlikely to drive many manufacturers out of business, particularly those with otherwise high quality cribs that may require only minimal design modifications to come into compliance. This is especially the case with manufacturers that supply many non-crib products to the market, including the company mentioned in the comment.

### **Comment**

Several commenters expressed concern about the ability of child care providers to pass on costs to their clients, thereby reducing the impact of the staff-recommended rule. The commenters noted that most of their clients are already struggling to pay for child care (the price range for child care cited by one commenter was from \$4,550 to more than \$18,000 per year). The comment added that because most child care facilities only have a few customers, their ability to raise large amounts of money to defray the cost of replacement cribs by increasing the price they charge their clients is limited.

### **Response**

The analysis by CPSC staff did not suggest that all cost increases associated with the proposed rule would be passed on to consumers, but rather, that some portion of those costs might be passed on, thereby mitigating the impact of the proposed rule on small child care facilities. CPSC staff recognizes that the economic impact on any given entity may differ based on a variety of factors, such as the size of the affected entity, the presence or absence of competitors that may affect an entity’s ability to raise prices or pass costs on to its customers, and the types of cribs purchased and whether the cribs comply with the standards.

### **Comment**

Several commenters expressed concern about the large financial burden that the proposed rule would place upon child care facilities, particularly given the tight budgets and lethargic economy. One commenter estimated that the total one-time cost to child care facilities could be

as much as \$600 million, with an additional \$2.5 million required for disassembly, disposal, and assembly. The same commenter indicated that the Notice of Proposed Rulemaking (NPR) concluded that “the proposed changes to the voluntary standard should not significantly affect replacement costs.” Commenters in general seemed to be particularly frustrated about being required to purchase new cribs to replace recently-purchased cribs that had no previous safety concerns. Several commenters were concerned that some child care facilities might be driven out of business. Two commenters also expressed concern about the potential cost impact on places of public accommodation.

As a corollary to these concerns, numerous commenters suggested ways in which the impact on child care facilities might be reduced. The most common suggestion was a longer effective date for these businesses, allowing them to spread the costs of compliance over a longer period of time, and ensuring that there are a sufficient number of compliant cribs available for purchase. A few wanted their older cribs exempted (or, alternatively, allowed an enforcement waiver) from the rule as long as they had not been recalled, shifting the burden of replacement from child care facilities to manufacturers.

### **Response**

CPSC staff recognizes the potentially large impact that the proposed rules could have on child care providers. The NPR assumed that most, if not all, child care facilities use smaller, non-full-size cribs; thus, staff did not expect a significant impact associated with full-size cribs. All of the effects on child care facilities were considered in the initial regulatory analysis for non-full-size cribs (this has been modified for the final regulatory flexibility analyses). CPSC staff analysis using data provided by the Early Care and Education Consortium (ECEC), the National Association for Family Child Care (NAFCC), and the National Head Start Association (NHSA), yields one-time replacement costs of approximately \$387 million. This information has been included in both the full-size and non-full-size crib final regulatory flexibility analyses. The analyses have also been modified to specifically take into account the possibility of child care facilities going out of business, as well as the impact on families using child care.

Section 104(c) of the CPSIA requires that child care facilities provide for use cribs that meet CPSC’s new crib standards once these standards are in effect. Therefore, the CPSC does not have the authority to allow older cribs to be replaced via recalls. However, the Commission does have the discretion to set the effective date and periods for compliance for the crib standards. CPSC staff recognizes that child care facilities face unique circumstances. Collectively, child care facilities purchase and provide for use hundreds of thousands of cribs. Having a sufficient number of cribs is essential to their business because, if they provide care for infants, they cannot operate without providing cribs for their customers’ use.

Based on a 2005 U.S. Department of Education NHES Early Childhood Program Survey, approximately 774,000 children under the age of one year are in non-parental, non-relative child care arrangements each week. Based on comments, the typical life cycle of a crib used in a child care facility is 10 years. Thus, CPSC staff estimates that in any given year, child care providers replace approximately 77,000 cribs. Assuming that one crib must be provided for each child under the age of one, nearly 700,000 cribs more than the annual average would be needed to

replace noncompliant cribs once the new standards take effect. This demand would be added to the demand of private households for new compliant cribs. Accordingly, CPSC staff recommends a tiered approach of a six month effective date with an additional six months for child care facilities to comply with the final crib rules.

Although child care commenters provided detailed information about the number of cribs in child care facilities, the normal rate of replacement, and the anticipated costs of complying with the new crib standards, we did not receive such information concerning places of public accommodation. CPSC staff believes that while some providers of public accommodation may provide a few non-full-size cribs for use by customers, the number of cribs at any one establishment is likely to be low. Firms may opt to reduce the impact of the rule by ceasing to provide cribs to their customers, not replacing all of their cribs, or providing play yards instead. Therefore, it is unlikely that there will be a significant impact on a substantial number of firms providing public accommodation.

### **Comment**

One commenter requested that CPSC grant an effective date of one to two years for the non-full-size crib standard.

### **Response**

CPSC staff considers six months sufficient time for suppliers to come into compliance with the proposed rule. Although a longer effective date would allow small entities to spread their costs out over a longer period of time, given the number and severity of the incidents associated with cribs, staff does not believe that a longer period of time is necessary. CPSC staff included a discussion of this alternative in the final regulatory flexibility analysis for non-full-size cribs.

**TAB B:**  
**Final Regulatory Flexibility Analysis of Staff-Recommended  
Final Standard for Non-Full-Size Cribs**



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

**Memorandum**

Date: October 21, 2010

TO : Patricia L. Edwards  
Project Manager, Cribs  
Division of Mechanical Engineering  
Directorate for Engineering Sciences

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

Deborah V. Aiken, Ph.D.  
Senior Staff Coordinator  
Directorate for Economic Analysis

FROM : Jill L. Jenkins, Ph.D.  
Economist  
Directorate for Economic Analysis

SUBJECT : Final Regulatory Flexibility Analysis of Staff-Recommended Final Standard for Non-Full-Size Cribs<sup>50</sup>

**Introduction**

On August 14, 2008, the Consumer Product Safety Improvement Act (CPSIA) was enacted. Among its provisions, section 104 of the CPSIA requires that the Consumer Product Safety Commission (CPSC) evaluate the currently existing voluntary standards for durable infant or toddler products and promulgate mandatory standards substantially the same as, or more stringent than, the applicable voluntary standards. Non-full-size cribs are among the durable products specifically named in section 104.

The Commission proposed adopting the voluntary ASTM International (formerly known as the American Society for Testing and Materials) standard for non-full-size baby cribs (F 406-10) with three modifications.<sup>51</sup> ASTM approved a new version of the non-full-size crib standard on

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<sup>50</sup> For the purpose of this memo, cribs that are not full-size will be referred to as non-full-size cribs. This is how they are referred to in the current CPSC crib regulation, 16 CFR 1509 and in the ASTM standard F 406-10a. It should be noted that in the CPSIA these products are referred to as either “nonfull-size” and “nonfull-sized” cribs.

<sup>51</sup> The modifications were: 1) replacing the existing ASTM mattress support performance test with a method that simulates young children bouncing on the crib; 2) harmonizing the side impact test to make it consistent with the one for full-size cribs (F 1169-10); 3) re-inserting the movable side latch tests that were accidentally dropped from the “Vertical Drop-Side Latch Tests;” and 4) specifying the order of testing to mirror the order from the full-size crib standard (F 1169-10).

October 15, 2010 (F 406-10a). Many of the modifications to the new voluntary standard were intended to mirror the proposals in the Commission's notice of proposed rulemaking (NPR). Therefore, the staff-recommended final rule is based upon ASTM F 406-10a. In particular, staff recommends that the Commission adopt F 406-10a with the following modifications: 1) disallow the retightening of screws during the testing process; 2) expand the test procedures for spindle/slat strength to accommodate cribs with folding sides; and 3) change the language in a warning dealing with netting or other covers to include non-full-size cribs under the scope of the warning. CPSC staff also recommends a six-month delay in enforcement for child care facilities.

The Regulatory Flexibility Act (RFA) requires that final rules be reviewed for their potential economic impact on small entities, including small businesses. Section 604 of the RFA requires that CPSC staff prepare a final regulatory flexibility analysis and make it available to the public for comment when the final rule is published. The final regulatory flexibility analysis must describe the impact of the proposed final rule on small entities and identify any alternatives that may reduce the impact. Specifically, the final regulatory flexibility analysis must contain:

1. a succinct statement of the objectives of, and legal basis for, the rule;
2. a summary of the significant issues raised by public comments in response to the initial regulatory flexibility analysis, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments;
3. a description of and, where feasible, an estimate of the number of small entities to which the rule will apply;
4. a description of the projected reporting, recordkeeping, and other compliance requirements of the rule, including an estimate of the classes of small entities subject to the requirements and the type of professional skills necessary for the preparation of reports or records; and
5. a description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.

## **The Product**

Non-full-size cribs are rigidly-constructed beds designed to provide sleeping accommodations for an infant.<sup>52</sup> In essence, any rigidly constructed crib with dimensions (or a shape) that differs from a full-size crib is a non-full-size crib. More specifically, either:<sup>53</sup>

- the interior length is greater than 139.7 centimeters (55 inches) or smaller than 126.3 centimeters (49 ¾ inches);

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<sup>52</sup> ASTM F 406-10.

<sup>53</sup> Ibid.

- the interior width dimension is greater than 77.7 centimeters (30 5/8 inches) or smaller than 64.3 centimeters (25 3/8 inches); or
- both.

This includes:<sup>54</sup>

- portable cribs—designed to be folded or collapsed, without disassembly;
- crib-pens—designed so that the legs can be removed or adjusted to provide a play pen or play yard;
- specialty cribs—designed in unconventional shapes (such as circular) and incorporating a special mattress or other unconventional components; and
- undersized and oversized cribs—designed so that the interior length and/or width meet the specifications outlined above.

Any accessories that come with the non-full-size crib are also covered by the staff-recommended final rule, as well as ASTM standard F 406-10, although those accessories must also comply with the relevant ASTM standard (i.e. a bassinet accessory must comply with the non-full-size cribs standard, as well as the bassinets/cradles standard).<sup>55</sup>

The following products are not considered non-full-size cribs:<sup>56</sup>

- Inflatable products
- Mesh/net/screen cribs
- Non-rigidly constructed baby cribs
- Cradles
- Car beds
- Baby baskets
- Bassinets

## **The Market for Non-Full-Size Cribs**

Non-full-size cribs are typically produced and/or marketed by juvenile product manufacturers and distributors or by furniture manufacturers and distributors, some of which have separate divisions for juvenile products. CPSC staff believes that there are currently at least 17 manufacturers or importers supplying non-full-size cribs to the U.S. market. Five firms are domestic importers and ten firms are domestic manufacturers. There was insufficient information on the remaining two firms to determine whether they were importers or manufacturers.<sup>57</sup>

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<sup>54</sup> Ibid.

<sup>55</sup> JPMA, *Standard Consumer Safety Specification for Non-Full-Size Cribs/Play Yards* (F 406-09).

<sup>56</sup> Ibid and F 406-10.

<sup>57</sup> Determinations were made using information from Dun & Bradstreet and ReferenceUSAGov, as well as firm websites. Manufacturers include traditional manufacturers, as well as firms that send out their designs to be manufactured, and firms that import as well but are primarily manufacturers.

The Juvenile Products Manufacturers Association (JPMA), the major U.S. trade association that represents juvenile product manufacturers and importers, runs a voluntary certification program for several juvenile products.<sup>58</sup> Five firms supply non-full-size cribs to the U.S. market that have been JPMA-certified as compliant with the ASTM voluntary standard. Additionally, two firms claim compliance, although their products have not been certified by JPMA. Therefore, including the firms that claim compliance with the ASTM standard, five manufacturers and one importer have products that are ASTM compliant.<sup>59</sup> Additionally, one of the firms with an unknown source of supply also claims compliance with the ASTM standard.<sup>60</sup> It is assumed throughout this analysis that firms that are certified or claim to be compliant with earlier ASTM standards will remain compliant with ASTM standard F 406-10a.

According to a 2005 survey conducted by the American Baby Group (*2006 Baby Products Tracking Study*),<sup>61</sup> 90 percent of new mothers own cribs. Approximately 36 percent of wooden cribs and 50 percent of metal cribs were handed down or purchased second-hand.<sup>62</sup> Using an average weighted by the ownership of each type of crib (83 percent for wooden and 7 percent for metal), it is estimated that approximately 37 percent of all cribs were handed down or purchased second-hand.<sup>63</sup> Thus, about 63 percent were acquired new. This suggests annual sales of about 2.4 million cribs to households (.63 x .9 x 4.3 million births per year).<sup>64</sup> To the extent that new mothers own more than one crib, annual sales may be underestimated. Based on a review of the U.S. market, it appears that there are approximately 591 full-size crib models and 81 non-full-size crib models currently being supplied. Therefore, approximately 12 percent of the crib models on the U.S. market are non-full-sized. Applying this to the number of cribs sold annually, yields an estimate of 293,000 non-full-size cribs sold annually. However, this is a rough estimate, because the percentage of non-full-size crib models on the market does not necessarily correlate directly to sales.

Section 104 of the CPSIA operates such that when the Commission's crib standards take effect, in addition to applying to manufacturers and importers of new non-full-size cribs, they

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<sup>58</sup> JPMA has run this certification program since 1976, beginning with high chairs. Products voluntarily submitted by manufacturers are tested against the appropriate ASTM standard and only passing products are allowed to display JPMA's Certification Seal. See <http://www.jpma.org/content/safety/overview> for more information.

<sup>59</sup> The two firms that claim compliance are both manufacturers.

<sup>60</sup> It should be noted that non-JPMA certified products will not necessarily fail to comply with the ASTM standard.

<sup>61</sup> The data collected for the *Baby Products Tracking Study* does not represent an unbiased statistical sample. The sample of 3,600 new and expectant mothers is drawn from American Baby magazine's mailing lists. Also, because the most recent survey information is from 2005, it may not reflect the current market.

<sup>62</sup> The data on second-hand products for new moms was not available. Instead, data for new mothers and expectant mothers was combined and broken into first-time mothers and experienced mothers. Data for first-time mothers and experienced mothers has been averaged to calculate the approximate percentage of cribs that were handed down or purchased second-hand.

<sup>63</sup> Of the 83 percent of mothers who own wooden cribs, 36 percent of those mothers own cribs that were handed down or purchased second-hand; of the 7 percent of mothers who own metal cribs, 50 percent of those mothers have used cribs.

<sup>64</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, National Vital Statistics System, "Births: Preliminary Data for 2007," *National Vital Statistics Reports* Volume 57, Number 12 (March 18, 2009): 6 (Table 1). Number of live births in 2007 is rounded from 4,317,119.

will also apply to retailers of both new and used non-full-size cribs.<sup>65</sup> They will also apply to child care facilities and places of public accommodation, such as hotels, that supply non-full-size cribs to their patrons. Based on public comments received from child care facilities in response to the NPR, it appears that child care facilities typically use a mix of full-size and non-full-size cribs with a bias in favor of non-full-size cribs. However, it is still assumed that places of public accommodation tend to provide their customers with non-full-size cribs, as opposed to the more unwieldy full-size cribs. The number of firms that may be selling or providing non-full-size cribs is unknown, but may be drawn from the approximately 24,985 retail firms (at least 5,292 of which sell used products),<sup>66</sup> the 59,555 firms supplying child care services,<sup>67</sup> and the 43,303 firms providing public accommodation<sup>68</sup> that may be supplying new or used non-full-size cribs to the public.<sup>69</sup>

### **Reason for Agency Action and Legal Basis for the Draft Final Rule**

Section 104 of the CPSIA requires the CPSC to promulgate a mandatory standard for non-full-size cribs that is substantially the same as, or more stringent than, the voluntary standard. The CPSC worked closely with ASTM to address several known hazards in the most recent versions of the ASTM standard for non-full-size cribs (F 406-10 and F 406-10a).<sup>70</sup> CPSC staff recommends adopting ASTM F 406-10a with three modifications. CPSC staff believes that the more stringent requirements will address known hazard patterns and thereby help to further

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<sup>65</sup> For simplicity, it is assumed that new, non-full-size cribs available for sale from manufacturers or importers that are no longer in the business of supplying non-full-size cribs come from retailer inventories, rather than manufacturer/importer inventories. To the extent that this is not true, the burden of assuring non-full-size crib compliance with the new standard would be shared by the manufacturer/importer and the retailer, rather than borne entirely by the retailer.

<sup>66</sup> The NAICS codes (and product line codes) used are: 4421 (20240), 4421 (20344), 45439 (20340), 4521 (20344), 45291 (20344), 45299 (20344), 45411 (20340), and 4533 (20340). Data on firms is extrapolated from the 2006 U.S. Census data, which has firm information, using 2007 Census data, which has more detailed product line information. For example, the 4421 NAICS code has a ratio of 21,242 firms for 29,245 establishments, or a ratio of 1.38 establishments for each firm. Applying this to the number of establishments for the more detailed 4421 (20240) line (50 establishments) yields approximately 36 firms. The same procedure is followed for each NAICS (product line) code and then summed. It is likely that some of the 1,028 electronic shopping retailers sell used products as well, but a precise estimate cannot be made.

<sup>67</sup> The NAICS code used is 6244.

<sup>68</sup> The NAICS code used is 7211.

<sup>69</sup> Note that this number is likely to be high, because not every retailer sells non-full-size cribs, and not every child care facility or hotel provides them. For example, not all of the stores selling bedroom furniture will necessarily sell cribs, and some child care facilities may use play yards instead of cribs, or only use non-full-size cribs. Sources include: Economic Census data from 2007 (<http://www.census.gov/econ/census07/>), Statistics of U.S. Business, *Number of Firms, Number of Establishments, Employment, and Annual Payroll by Employment Size of the Enterprise for the United States, All Industries 2006* (<http://www.census.gov/econ/susb/>), and SBA, *Employer Firms, and Employment by Employment Size of Firm by NAICS Codes, 2006* ([http://www.sba.gov/advo/research/us06\\_n6.pdf](http://www.sba.gov/advo/research/us06_n6.pdf)).

<sup>70</sup> The changes to ASTM F 406 for F 406-10 are outlined in the memorandum from Gregory K. Rea, ESME, Directorate for Laboratory Sciences, dated May 27, 2010, Subject: Proposed changes to the Consensus Standard for Non-Full-Size Cribs/Play Yards (ASTM F 406-10) – Segue to a mandatory CPSC Standard for Non-Full Size-Cribs and the changes for F 406-10a are outlined in the memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated May 26, 2010, Subject: Proposed Change to ASTM F 1169-10, Standard Consumer Safety Specification for Full-Size Baby Crib, for Incorporation in Staff's Draft Proposed Rule.

reduce injuries and deaths in non-full-size cribs.<sup>71</sup> CPSC staff is also recommending that child care facilities have one year to comply with the standard to help mitigate the significant burden the draft final standard will place upon these entities.<sup>72</sup>

## Compliance Requirements of the Draft Final Rule

CPSC staff recommends adopting the voluntary ASTM standard for non-full-size cribs (F 406-10a) (excluding parts that relate to play yards) with three modifications. Some of the more significant components of the most recent versions of the 2010 ASTM standard for non-full-size cribs are listed below. Requirements that are new or modified for the 2010 standard are italicized, while those from 2010a are in underlined italics:

- Dynamic impact testing of mattress support—intended to address incidents involving collapse or failures of mattress support systems. *In response to the NPR, the testing of mattress supports now includes a test that simulates a lifetime of jumping for the heaviest users. It also mirrors the Canadian and full-size crib standards.*
- Impact testing of side rails and slat strength/integrity—intended to prevent slats and spindles from detaching during use. *The 2010 standard modified these requirements to address occupants applying pressure to the slats from inside the crib, as well as caregivers applying pressure from the outside. The modifications harmonize with those in the staff-recommended full-size crib standard. In response to the NPR, this was modified to more closely mirror the full-size crib standard. It was also modified to include a torque test from the NPR.*
- Evaluation of mattress support attachment to crib—intended to ensure that the mattress support does not become detached from the frame, potentially resulting in a fall.<sup>73</sup>
- Latching mechanism tests—intended to ensure that latching and locking mechanisms work as intended, preventing unintended folding while in use. Also requires that they be used with drop gates and movable sides.
- Requirements for wood screws and other fasteners—*a new requirement for the 2010 standard that addresses hazards that exist when wood screws are the primary method of attachment.*

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<sup>71</sup> Memorandum from Gregory K. Rea, ESME, Directorate for Laboratory Sciences, dated May 27, 2010, Subject: Proposed changes to the Consensus Standard for Non-Full-Size Cribs/Play Yards (ASTM F 406-10) – Segue to a mandatory CPSC Standard for Non-Full Size-Cribs, memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated May 26, 2010, Subject: Proposed Change to ASTM F 1169-10, Standard Consumer Safety Specification for Full-Size Baby Crib, for Incorporation in Staff’s Draft Proposed Rule, and memorandum from Risana Chowdhury, Division of Hazard Analysis, Directorate for Epidemiology, dated May 19, 2010, Subject: Full-Size and Non-Full-Size Cribs-Related Deaths, Injuries and Potential Injuries; November 2007 – Present.

<sup>72</sup> Memorandum from Patricia L. Edwards, Project Manager for Cribs, Directorate for Engineering Sciences and Robert J. Howell, Assistant Executive Director, Office of Hazard Identification and Reduction, dated December 1, 2010, Subject: Consumer Product Safety Improvement Act of 2008 (CPSIA), Draft Final Rule for Safety Standards for Full-Size and Non-Full-Size Cribs.

<sup>73</sup> The difference between the dynamic impact testing on the mattress support system and the evaluation of the mattress support attachment is that the former involves repeatedly dropping a weight and the latter involves gradually pressing in a set weight (25 pounds). Both tests address the integrity of the mattress support system.

- Limitations on movable sides—*adds an additional requirement to the minimum movable side height for the 2010 standard that essentially bans drop-side cribs. This was further modified for the 2010a standard to reinsert the movable side latch tests, which were accidentally dropped from F 406-10. This modification was included in the NPR.*
- Cyclic testing—*a new requirement for the 2010 standard that simulates long-term shaking by a child. It was taken from the Canadian standard and complements the already existing mattress support system and side rail impact tests.*
- Misassembly issues—*a new requirement for the 2010 standard where it either must be impossible to misassemble key elements or those elements must have markings that make it obvious when they have been misassembled.*
- Test ordering—*in response to the NPR, the order of testing in the 2010a standard is now specified to mirror the testing in the full-size crib standard.*

There are also a number of other requirements, such as small parts, that are not outlined in detail here.

CPSC staff recommends modifying ASTM F 406-10a in the following ways:<sup>74</sup>

1. To no longer allow screws to be retightened between the crib side latch test and the mattress support vertical impact test. This modification would harmonize with the Canadian standard and the staff-recommended final rule for full-size cribs. CPSC staff believes that the combination of crib tests in the standard effectively simulates a lifetime of crib use and that retightening screws disrupts this re-creation. The modification should address loose screw incidents.
2. In response to comments, modifying the test procedures for spindle/slat strength to take into account cribs with folding sides which would need to have the spindles/slats testing on each side of the fold.
3. Changing the wording in a warning label regarding added netting or other covers on play yards, to replace the words “play yards” with “products.” This expands the scope of the warning to include non-full-size cribs.

CPSC staff recommends modifying ASTM standard F 406-10a to no longer allow screws to be retightened between the crib side latch test and the mattress support vertical impact test. As discussed in the initial regulatory flexibility analysis for full-size cribs, this modification will harmonize with the Canadian standard and better simulate a lifetime of crib use. Based on Health Canada results for one of the tests (shake test), it appears that only the most poorly constructed cribs will fail when their screws are not retightened during testing. Initial follow-up testing by CPSC staff found that allowing retightening over the entire series of tests could result in the very dangerous hazard of loose screws going unnoticed during testing. Based on this information, it appears that few, if any, firms will need to use better screw mechanisms or redesign their products to comply with the staff-recommended modification.

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<sup>74</sup> Memorandum from Jacob J. Miller, ESME, Directorate for Engineering Sciences, dated November 1, 2010, Subject: Staff Response to Technical Comments on the Notice of Proposed Rulemaking for Full-Size and Non-Full-Size Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

CPSC staff also recommends modifying the test requirements of ASTM F 406-10a to accommodate cribs with folding sides. Staff does not believe that product modification will be required to meet the revised test requirements. However, test costs might be minimally impacted, as testing for these cribs would likely require an additional set up to ensure that each portion of the folding side passes the spindle/slat tests.<sup>75</sup>

Finally CPSC staff recommends modifying the warning label pertaining to added netting or other covers on play yards to include non-full-size cribs.<sup>76</sup> A change to the warning would have little or no impact on manufacturers or importers.

### **Issues Raised by Public Comments**

There were several issues raised by public comments in response to the initial regulatory flexibility analysis. These include concerns about the cost impact of the proposed rule, particularly for child care providers. Commenters were also concerned about the ability of child care facilities to pass on costs to their customers or substitute play yards for cribs as ways of reducing the impact of the proposed rule. Child care providers requested methods of checking older cribs for compliance and possibly retrofitting rather than replacing older cribs. One commenter was concerned about cribs suppliers being driven out of business, and another requested a longer effective date for all entities. These comments and their responses are presented in their entirety in Appendix A of the full-size crib regulatory flexibility analysis memorandum. They have also been addressed, as appropriate, within this analysis.

In addition to the comments directed at the initial regulatory flexibility analysis, there were several comments received from the public that resulted in modifications to the final draft standard that have affected the final regulatory flexibility analysis for non-full-size cribs. First, screw retightening will no longer be allowed during testing. Second, the test procedures for spindle/slat strength have been expanded to accommodate cribs with folding sides, ensuring that both parts of the folding side are tested.<sup>77</sup> Third, the language in a warning dealing with netting or other covers was changed to include non-full-size cribs under the scope of the warning. In addition, CPSC staff recommends that child care facilities have one year to comply with the full-size crib standard to allow sufficient time for compliant cribs to become available for purchase, as well as allow them to better absorb the additional costs of the rule.<sup>78</sup>

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<sup>75</sup> Ibid.

<sup>76</sup> Ibid.

<sup>77</sup> Ibid.

<sup>78</sup> Memorandum from Patricia L. Edwards, Project Manager for Cribs, Directorate for Engineering Sciences and Patricia M. Pollitzer, GCRA, Office of the General Council, dated November 1, 2010, Subject: Staff Response to General Comments on the Notice of Proposed Rulemaking for Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

## Other Federal or State Rules

CPSC staff has identified at least one locality (Suffolk County, New York) that has banned drop-side cribs.<sup>79</sup> Additionally, some states have crib laws. For example, California has a crib law that refers to both 16 CFR 1508/1509 and ASTM F 1169.<sup>80</sup>

## Impact on Small Businesses

There are approximately 17 firms currently known to be producing or selling non-full-size cribs in the United States. Under Small Business Administration (SBA) guidelines, a manufacturer of non-full-size cribs is small if it has 500 or fewer employees and an importer is considered small if it has 100 or fewer employees. Based on these guidelines, 14 are small firms—nine domestic manufacturers and five importers. The size of the remaining firms—two with unknown supply sources and one domestic manufacturer—could not be determined. There are probably additional unknown small manufacturers and importers operating in the U.S. market.

According to the SBA, retailers and service suppliers such as child care facilities and places of public accommodation are considered small if they have \$7 million or less in annual receipts. Approximately 93 percent of retailers have receipts of less than \$5 million, with an additional 3 percent having receipts between \$5 million and \$9.99 million.<sup>81</sup> Excluding firms with receipts between \$5 million and \$7 million yields an estimate of 23,236 small retail firms that may potentially be affected by the staff-recommended rule.<sup>82</sup> However, it is important to note that only a small percentage of these small firms actually sell non-full-size cribs. Thus, the number of small retail firms affected will be far fewer than 23,236. Among child care service and accommodation providers, approximately 98 percent have receipts of less than \$5 million, with an additional 0.9 percent having receipts between \$5 million and \$9.99 million. This suggests that there are roughly 58,364 small child care firms (of 59,555) and 42,437 small hotel firms (of 43,303) that could be affected.

### *Small Manufacturers*

The impact of the staff-recommended final standard on small manufacturers will differ based on whether they are expected to be compliant with the voluntary ASTM standard (F 406-10a). Of the nine small domestic manufacturers, five are in compliance with the voluntary standard. The impact on the five compliant firms is not expected to be significant. It seems unlikely that any of

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<sup>79</sup> See [http://www.northshoreoflongisland.com/Articles-i-2009-10-15-81784.112114-sub\\_Dropside\\_crib\\_ban\\_passes.html](http://www.northshoreoflongisland.com/Articles-i-2009-10-15-81784.112114-sub_Dropside_crib_ban_passes.html) and [http://www.nypost.com/p/news/local/suffolk\\_county\\_first\\_to\\_ban\\_drop\\_WfDyjRp5byPK47fLVnTrVP](http://www.nypost.com/p/news/local/suffolk_county_first_to_ban_drop_WfDyjRp5byPK47fLVnTrVP).

<sup>80</sup> See <http://law.justia.com/california/codes/hsc/24500-24506.html>.

<sup>81</sup> SBA, *Employer Firms, Establishments, Employment, Annual Payroll, and Receipts by Receipts Size of Firm and Major Industry using NAICS, 2002* ([http://www.sba.gov/advo/research/us\\_rec\\_mi.pdf](http://www.sba.gov/advo/research/us_rec_mi.pdf)).

<sup>82</sup> It was not possible to break out the firms with receipts between \$5 million and \$7 million from those with receipts in the \$5 million to \$9.99 million range.

these products will require modification to meet the staff-recommended final standard. Should any modifications be necessary, they would most likely take the form of a few minor changes (such as more effective screws or screw combinations).

The staff-recommended final standard could have a significant impact on one or more of the four firms that are not compliant with the voluntary standard, as their products might require substantial modifications. The costs associated with these modifications could include product design, development and marketing staff time, and product testing. There may also be increased production costs, particularly if additional materials are required. The actual cost of such an effort is unknown, but could be significant, especially for the one firm that relies on the production and sale of non-full-size cribs and related products, such as accompanying furniture and bedding. However, the impact of these costs may be diminished if they are treated as new product expenses that can be amortized.

The scenario described above assumes that only those firms that produce cribs certified by JPMA or claim ASTM compliance will pass the requirements of ASTM F 406-10a. This is not necessarily the case. CPSC staff has identified many cases in which products not certified by JPMA are actually compliant with the relevant ASTM standard. To the extent that this is true, the impact of the staff-recommended final rule will be less significant than described.

### ***Small Importers***

While four of the five small importers are not compliant with the voluntary standard, all would need to find an alternate source of non-full-size cribs if their existing supplier does not come into compliance with the new requirements of the draft final standard. The cost to importers may increase and they may, in turn, pass some of those increased costs on to their customers.<sup>83</sup> Some importers may respond to the rule by discontinuing the import of their non-complying cribs. However, the impact of such a decision may be reduced by replacing non-compliant cribs with complying products or other juvenile products. Deciding to import an alternative product would be a reasonable and realistic way to offset any lost revenue given that most small importers import a variety of products.

### ***Small Retailers, Child Care Facilities, and Places of Public Accommodation***

The CPSIA requires that all non-full-size cribs sold (or leased) by retailers or provided by child care facilities or places of public accommodation (e.g., hotels) comply with the non-full-size crib rule.

This means that retailers, most of which are small, will need to verify that any non-full-size cribs in their inventory (that they intend to sell or lease after the effective date of the standard), and any that they purchase in the future, comply with the regulation prior to offering them for sale. It is believed that most retailers, particularly small retailers, do not keep large inventories of cribs. With the six month effective date (with an additional six month compliance period for child care facilities) retailers of new products should have sufficient notification and time to

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<sup>83</sup> These products would also be expected to be higher quality given the additional safety requirements.

make this adjustment with little difficulty. The situation for retailers of used cribs is more complicated, however, because they may not always be able to determine whether the non-full-size cribs they receive are compliant. For affected retailers, it may be simpler to discontinue the sale of used non-full-size cribs. If cribs represent a small proportion of the products they sell, the impact on these firms may be limited.

Child care facilities would need to provide compliant cribs to their customers by the standard's effective date; however, staff recommends a tiered approach that would establish a six month effective date, but allow an additional six months for child care facilities to comply. This would give child care facilities additional time to purchase and replace their cribs that do not comply with the final rule. Without a longer period for compliance, the impact on small child care firms would be greater, particularly for those that would have to replace all of their cribs at once. Based on data provided through public comments, it appears that the average child care facility has between four and 45 cribs, more than half of which are likely to be non-full-size. Each crib costs around \$500.<sup>84</sup> Therefore, if 75 percent are non-full-size cribs, replacement of non-full-size cribs for an individual child care facility could run from \$1,500 to as high as \$16,500.<sup>85</sup> The total one-time cost to child care facilities, the majority of which are small, of replacing all of their non-full-size cribs is estimated to be approximately \$290 million nationwide.<sup>86</sup> The staff recommended approach of allowing child care facilities one year to comply with the new crib standards will reduce the impact on child care facilities; however, some child care facilities could still be affected significantly.

There are additional considerations concerning the one-time costs child care providers face. Some of the costs may be passed on to customers via small increases in the rates child care providers charge. The recoupment of these costs for child care providers will take place over an extended period, while the initial outlay for new cribs would be much more immediate. Additionally, as several commenters noted, child care facilities are limited in how much of these costs can be passed on to their customers.<sup>87</sup> Some centers could opt to replace their non-full-size

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<sup>84</sup> The cost information provided ranged from \$100 to more than \$500. However, the lower cost products appear to be play yards rather than cribs. Since \$500 or more than \$500 was a frequently supplied answer, it was selected for this analysis. It also takes into account any incidental costs of disassembling older cribs and disposing of them, as well as the assembly of the new cribs, which one commenter estimated as being approximately \$23 per crib.

<sup>85</sup> Similar costs apply to the replacement of full-size cribs, so total replacement costs of *all* cribs could run as high as \$2,000 to \$22,500.

<sup>86</sup> The total one-time cost of both the full-size and non-full-size final rules if all cribs must be replaced is estimated to be approximately \$387 million. Using the data source provided by one commenter and removing from consideration the children in weekly relative care arrangements (some of whom may be in child care facilities that happen to be run by family members, thereby biasing the estimate downward), yields 774,180 children less than one year of age in non-parental, non-relative child care arrangements each week. Assuming that one crib is provided for each child yields a total one-time replacement cost of approximately \$387 million (774,180 children under one year of age x \$500 per crib). Assuming 75 percent of those cribs are non-full-size, the cost of their replacement is approximately \$290 million. Iruka, I. U., and Carver, P. R. (2006). Initial Results from the 2005 NHES Early Childhood Program Participation Survey (NCES 2006-075). U.S. Department of Education. Washington, DC: National Center for Education Statistics, Table 1. (<http://nces.ed.gov/pubs2006/2006075.pdf>).

<sup>87</sup> One commenter states that approximately 35 percent of the children in their care (more than 150,000) receive some form of state subsidy. For another provider, it is approximately one-third of the children in their care. Raising rates above what customers can bear has the potential to deprive families of child care or force them into alternative child care arrangements that may not be subject to the final rule. The latter possibility has the potential for safety risks in excess of those that currently exist in child care facilities.

cribs with play yards, which are less expensive than non-full-size cribs (typically \$100 - \$200), thereby spreading replacement costs over a longer period. While this would reduce the impact of the final rule, the potential cost reduction may be limited by state licensing laws.<sup>88</sup>

Some places of public accommodation may provide a few non-full-size cribs for use by customers. The number of cribs at any one establishment is likely to be low, especially given the likelihood that parents with young children travel with their own sleep products, such as play yards or portable cribs. This is a one-time cost for firms that likely can be passed on to customers over time. Firms, particularly smaller ones, may opt to reduce the replacement costs by ceasing to provide cribs to their customers, replacing only some of their cribs, or providing play yards instead of cribs. Therefore, it is unlikely that the rule will have a significant impact on a substantial number of small firms providing public accommodation.

## Alternatives

Under section 104 of the CPSIA, there are three alternatives that could reduce the impact on small entities:

1. **Make the voluntary standard mandatory with no modifications.** Adopting the current voluntary standard without any changes could potentially reduce costs for four of the nine small manufacturers and four of the five small importers who are not already compliant with the voluntary standard. However, these firms will still require substantial product changes in order to meet the voluntary standard. Since the staff's changes add little to the overall burden of the staff-recommended rule, adopting the voluntary standard with no changes will not significantly offset the burden that is expected for these firms. Adopting the voluntary standard with no modifications could reduce the impact on small retailers and some child care providers, however, to the extent that newer non-full-size cribs in child care facilities and on store shelves have documentation that they are compliant with ASTM F 406-10a.
2. **A tiered six month effective date with a compliance date for child care facilities beyond one year.** Allowing child care centers additional time beyond the one year staff recommends would further reduce the impact of the final rule on small child care centers. It would have no impact on manufacturers, importers, retailers, and hotels.
3. **Set a one year effective date.** A later effective date will provide additional time for manufacturers of non-compliant cribs to modify their existing cribs. It would also provide importers of non-compliant cribs additional time to ensure that their current suppliers come into compliance with the new rule or to find alternative suppliers. Similarly, it could alleviate any inventory issues for small retailers. This alternative would also allow places of public accommodation additional time to purchase compliant cribs, reducing the impact on small firms.<sup>89</sup> The impact on small child care facilities would be the same as under the staff-recommended approach, as both allow

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<sup>88</sup> It should be noted that CPSC staff is not advocating the use of play yards over cribs, but is acknowledging that the choice of play yards over cribs is an option for some child care providers.

<sup>89</sup> Although the impact on small retailers and small places of public accommodation are not believed to be significant.

them the same amount of additional time to better absorb the costs of the rule. An even longer effective date would reduce the impact on small child care facilities further.

**TAB C:**  
**Staff Responses to Technical Comments on Notice of  
Proposed Rulemaking for Full-Size and Non-Full-Size Cribs,  
Section 104 of the Consumer Product Safety Improvement  
Act of 2008 (CPSIA)**



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

## Memorandum

Date: November 1, 2010

TO: Patricia L. Edwards  
Project Manager, Cribs  
Division of Mechanical Engineering  
Directorate for Engineering Sciences

THROUGH: Erlinda Edwards  
Acting Associate Executive Director  
Directorate for Engineering Sciences

Mark Kumagai  
Director, Division of Mechanical Engineering  
Directorate for Engineering Sciences

FROM : Jacob J. Miller  
Division of Mechanical Engineering  
Directorate for Engineering Sciences

SUBJECT : Staff Responses to Technical Comments on the Notice of Proposed Rulemaking for Full-Size and Non-Full-Size Cribs, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA)

### **I. Introduction**

This memorandum provides a summary of the technical comments received on the Notice of Proposed Rulemaking (NPR), published in the Federal Register, 75 FR 43308 (July 23, 2010), staff's responses to those comments, and a summary of staff's recommended changes to the NPR for the draft final crib standards. The NPR proposed safety standards for full-size baby cribs and non-full-size baby cribs under section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

### **II. Staff's Responses to Comments**

CPSC received several comments on the NPR requesting changes to the proposed performance requirements, which were reviewed by mechanical engineering (ESME) staff. Many of the technical comments related to both full-size and non-full-size crib performance requirements, and one comment was unique to non-full-size cribs. The comments were consolidated into six issues. The first five issues, slat strength test changes for folding sides, definition of folding versus moveable sides, rocking crib test procedure, retightening screws allowance, and captive

hardware requirements/encouragement, pertain to both full-size and non-full-size cribs. The sixth grouping, test mattress for mattress support test, pertains only to non-full-size cribs. These comments are discussed separately below.

**A) Slat Strength Test Changes for Folding Crib Sides**

One commenter noted that the spindle/slat testing procedure does not consider testing crib sides that fold either for access to the occupant or for storage and transport and that, as written in the proposed standard, the test method does not specify testing procedures for such segmented sides. The commenter provided suggested language for the full-size and non-full-size crib standards, respectively, as follows:

*For ASTM F 1169-10 Standard Consumer Safety Specification for Full-Size Baby Cribs:*

**7.7.1** *The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately as described above.*

*For ASTM F 406-10a Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards:*

**8.10.1** *The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of at the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately as described above.*

Staff's Response

Staff agrees with this comment. CPSC staff worked in cooperation with the ASTM task group, which created the language suggested by the commenter. Although the defined testing requirements in the proposed rule would work adequately for a crib side with no moving segments, this method does not clearly define testing procedures for segmented sides. The intent of the slat strength test is to verify that the crib slats can withstand 80 pounds-force (lbf). If a crib side includes a hinge or other folding mechanism, the force applied to the slat could be transferred to the hinge and unintentionally test the structural integrity of the hinge and/or hinge attachment. CPSC staff has not received reports of any incidents regarding crib sides with hinges or other folding mechanisms. Staff recommends adding the new requirement, as outlined by the commenter, to both crib standards.

### ***B) Definition of Folding vs. Movable Sides***

One commenter asked about the difference between movable sides and folding sides as defined in the voluntary full-size crib standard, ASTM F 1169-10. The commenter also questioned whether one of his cribs meets the requirements of Section 5.6 Crib Side Configurations.

#### Staff's Response

ASTM F 1169-10 defines a folding side as a side or part of a side that folds or pivots in order to provide easier access to an occupant. An example of this is a crib with a drop-gate design, where the top portion of one side folds over by use of a hinge or hinges. A movable side is also a side that is used to provide easier access to an occupant and is any other design other than a folding side. With regard to whether the commenter's crib meets the requirements of F 1169-10, staff cannot provide an answer, because we have not inspected or tested the crib in question.

### ***C) Rocking Crib Test Procedure***

One commenter asked how the CPSC plans to apply the proposed crib standard to cribs that are built with rockers, a design that is not addressed explicitly by ASTM F 1169-10. The commenter noted that such a product could be a "super-sized" cradle or rocking bassinet, whose interior dimensions meet that of a full-size crib, or perhaps a glider-style crib. The commenter said that it would make sense for the crib to be arrested during testing so that the crib does not rock, but the commenter felt this was not clear in the proposed rule.

#### Staff's Response

Staff feels the current language in the standard is sufficient and clearly states that for each dynamic test requirement, the crib must be mounted rigidly prohibiting or arresting any movement of the crib during all phases of the test procedure. Furthermore, it would be intuitive for test laboratories that a rocking crib must be secured to arrest any motion in the vertical or horizontal direction. Manufacturers and test labs have been manufacturing and testing non-full-size rocking cribs for some time now, and staff is not aware of any clarity requested or needed for testing existing non-full-size rocking cribs or potentially newly-designed full-size rocking cribs.

### ***D) ASTM Provision Concerning Retightening of Screws and Bolts***

Most comments agreed with the proposed rule's exclusion of the provision in ASTM F 1169-10 that allows for retightening of screws between tests. However, one commenter disagreed, noting that, "*absent test data to support a contrary position, tightening of the screws is consistent with the ASTM requirements and CPSC's own historic test practices.*" The commenter states that the dynamic tests, namely the shake test, vertical mattress support impact test, and the crib side rail impact test are designed to simulate and accelerate the use and abuse of the crib.

## Staff's Response

CPSC staff strongly disagrees with the comment objecting to excluding the hardware retightening provision. It is true that the purpose of accelerated life cycle tests is to accelerate the degradation rate of a product under known use conditions. However, the accelerated tests that are required in both the full-size and non-full-size crib standards are not overly stringent. The combination of the shake test (to simulate a child standing and shaking the top of a side rail), the vertical mattress support impact test (child jumping), the crib side rail impact test (child climbing outside of rail), and the slat/spindle strength test (child and/or sibling falling against or kicking slats) comprise a laboratory simulation of a lifetime of use. The shake test parameters are based on a lifetime of use of only 18 months, or use by just one child. The majority of cribs are used for two and three children, and some are in use for 15 years or longer. Furthermore, the accelerated life cycle tests include test parameters for foreseeable use of the product. Foreseeable use includes, as mentioned earlier, a child shaking the side rails, jumping on the mattress, climbing on the outside of the side rails, or falling or kicking the crib slats.

One commenter stated that CPSC staff has not had the time to evaluate the efficacy of not removing the retightening allowance. Again, staff disagrees. First, staff conducted initial tests to verify the effects of the vertical mattress support impact and crib side rail impact tests on fasteners loosened during the cyclic side shake test. ESME and LSM (Laboratory Sciences, Division of Mechanical Engineering) staff intentionally backed out fasteners one-fourth and one-half turn, chosen at random on three full-size and two non-full-size cribs, prior to mattress support and side impact testing. In summary, the side rail impact test severely affected fasteners that lost their seated preload, approximately one-half turn and greater. Fasteners that were loosened less than one-half turn maintained sufficient preload to withstand the side impact test vibrations applied to the lower rail. If the fasteners that loosened after the crib side impact test had been retightened beforehand, a potentially dangerous condition, such as a hazardous gap created by loosened hardware, would have gone unnoticed.

Second, ESME and LSM staff recently had the opportunity to evaluate each proposed performance requirement by participating in the testing of a full-size crib according to the full-size crib NPR language. Test results showed that the forces exerted on the crib sides during the shake test are not significantly detrimental to loosening hardware. After completion of the shake test on the test crib, two fasteners were noted to have backed out, one about one-eighth of a turn, and one close to one-half a turn. Neither fastener backed out enough to be considered noncompliant with the test requirement. In addition, these two fasteners did not back off any further after the mattress support and crib side impact testing. However, after the crib side impact test, another fastener, a wing nut securing the mattress support, backed off several turns, creating about a three millimeter separation, which is noncompliant with the requirement. Therefore, the crib ultimately failed due to a primary component attached by a screw that separated more than one millimeter. It is important to note that the assembly envelope around the wing nuts was severely confined by the proximity of the mattress support frame to the side slats. This made it difficult to ensure that adequate torque was applied during crib assembly. Results such as these reemphasize the importance of not allowing retightening of fasteners during testing, because it is foreseeable that a consumer will have similar difficulty tightening a fastener in a confined space.

It is also important to note that ASTM F 1196-10 and F 406-10a include a new hardware and fasteners requirement, which requires that crib hardware include a locking device or method for impeding loosening. This will further reduce the need for the retightening allowance, especially with crib designs which utilize fasteners that are difficult to access.

In summary, staff strongly disagrees with the request to allow retightening of fasteners. The majority of crib side rail corners are attached with one screw. Loosening just one screw can result in subsequent detachment of the side rail corner, creating a hazardous gap. There have been at least 10 fatalities where loose screws have contributed to the death of a child. Among hazards addressable by a performance requirement, loose screws are second only to drop-sides for the number of fatalities associated directly to cribs. It is important that fasteners remain secure during the useful life of the crib.

### *E) Captive Hardware Requirements/Encouragement*

Some commenters suggested that the hardware used for assembly remain captive in the key structural components when a crib is disassembled to reduce the chance of losing the hardware and owners subsequently substituting inappropriate hardware from what originally was provided with the crib.

#### Staff's Response

Captive hardware typically includes a threaded insert with a captive screw on the mating component. A few of the advantages of captive hardware include: prevention of lost hardware, accurate and repeatable assembly of primary structural components, and ease of assembly. Crib designs using captive hardware, especially for primary components such as side rails, could minimize the chance of screws loosening, allowing components to detach and create an entrapment hazard. In addition, captive hardware should minimize the chance of a consumer replacing a lost screw with an incorrect or improper substitute. Captive hardware could also reduce the chance to misassemble the crib. A crib design incorporating captive hardware should prevent the crib from being misassembled because there will be little, if any, chance of the consumer choosing the wrong fastener or incorrectly orienting a crib component. Lastly, captive hardware could provide ease of assembly, again increasing the chances that each fastened joint is secured tightly with the correct fasteners.

Although, there appear to be many advantages to using captive hardware on cribs, there are several disadvantages. First, if a captive screw ever becomes damaged, either during the assembly or disassembly of a crib, or is inadvertently bent or pulled from an external force while in the disassembled state, as when the crib is transported or stored for later use, it may prove difficult or impossible to reassemble the crib component with the damaged screw. Furthermore, once the captive hardware is damaged, the average consumer most likely will find it difficult to remove and reinstall a replacement captive screw. Second, one main component of a full-size crib, the mattress support, typically is designed to be installed in different positions (levels). Requiring captive hardware to attach a mattress support could result in more complicated designs or extra hardware attached to the crib that is not always in use.

Although the advantages of using captive hardware may seem to outweigh the disadvantages, staff feels it is premature to mandate the use of captive hardware. Staff encourages manufacturers and ASTM to investigate the use of captive hardware systems on cribs and notes that some manufacturers already are employing or considering using such designs.

#### ***F) Test Mattress for Non-Full-Size Crib Mattress Support Test***

One commenter expressed concern about the test mattress used when conducting the mattress support testing (dynamic impact) on non-full-size cribs. The ASTM standard requires a crib to be tested using a specific test mattress rather than using the mattress supplied with the crib. The commenter was concerned that testing with such a mattress may be less stringent than testing with the mattress supplied with the product, because the specified test mattress may have characteristics (i.e., a greater thickness, a higher density) that are superior to those present in the mattress supplied with the crib.

The commenter also was concerned that the provision could require test labs to have multiple test mattresses to suit all different dimensions of non-full-size cribs. This, the commenter stated, could increase the time and costs of testing.

The commenter recommended that the mattress supplied with the product be the mattress that is used in the dynamic testing. Alternatively, the commenter suggested: (1) stating in the final rule that a test mattress be large enough to accommodate the impactor to be used in the test, provided the test mattress does not shift in any way during testing or (2) specifying a smaller test mattress that would accommodate all non-full-size cribs currently for sale in commerce, with such dimensions as 18" x 18" x 3."

#### **Staff's Response**

In some instances, it may be true that testing non-full-size cribs with a thicker test mattress may be less stringent than testing with the mattress supplied with the product. However, staff feels it is more important to use a standard size test mattress for test uniformity and repeatability between testing facilities. Crib mattresses, especially mattresses provided with non-full-size cribs, are typically entry-level price point mattresses. Foam and mattress stitch variability is inherently high throughout the mattress industry. Furthermore, the mattress thickness, foam density, and other mattress characteristics determine the amount of energy that is transferred to the mattress support system. If a standard test mattress is not required, it is foreseeable that the same non-full-size crib with a supplied one-inch mattress may pass at one test laboratory, but fail at another, due solely to the inherent variability in the mattress manufacturing process.

The commenter's concern regarding the potential time delay in specifying and ordering a test mattress to correctly fit the non-full-size crib being tested could be easily addressed by the manufacturer by including a test mattress in the crib's bill of materials at the design stage. This will ensure that all crib components, including the test mattress, are procured at the same time. Thereafter, the test mattress will be available for testing, when needed, eliminating any additional testing or cost delays by the test laboratories.

The commenter's last point concerns the use of a test mattress just large enough to accommodate the impactor used during the mattress impact test. The commenter asks if a test mattress with the dimensions of 18" x 18" x 3" would be acceptable. In general, any test mattress used that is smaller than the interior surface area of the crib will be more stringent than using a mattress equivalent to the crib's interior surface area. A smaller test mattress will transfer more energy into the mattress support system. Specifically, using the 18" x 18" x 3" mattress pad as an example, the impact head, about 8" across, when positioned 2" from the sides in a corner will hit the test mattress such that it overlaps the mid-plane or geometric center of the test mattress. Therefore, the test mattress foam will sustain more damage than a larger mattress. Unless replaced for each test, it will soften, thereby transmitting more energy into the mattress support structure. Staff believes that using an undersized mattress will mean less repeatability from lab to lab and different force distributions experienced on each crib.

Once a crib mattress standard is developed, which would diminish the variability currently inherent in the mattress manufacturing process, testing non-full-size cribs with the manufacturer's supplied mattresses may be more workable. However, for the present, staff feels it is more important to ensure repeatability between tests run by different laboratories by using a standardized mattress.

### **III. Staff's Recommended Changes to the Proposed Full-Size Crib Standard**

The proposed rule for full-size cribs referenced ASTM F 1169-10 *Standard Consumer Safety Specification for Full-Size Baby Cribs* and included one change, which was to remove section 6.12 from the standard. This section states the following: "*Screws and bolts that are normally removed or loosened to disassemble the product shall be retightened between the crib side latch testing and the mattress support vertical impact testing.*" Despite receiving a comment that did not agree with this modification, staff continues to recommend the removal of this provision from the standard.

Since the publication of the NPR, ASTM issued a ballot on October 1, 2010, that contained one item pertaining to ASTM F 1169-10. This balloted and approved item pertains to slat/spindle testing of folding sides and also was the subject of one of the comments. As of the submittal date of this briefing package to the Commission, ASTM has not published a revised version of ASTM F 1169 to include this change.

Based on a review of the technical comments received for the NPR, staff is recommending one change to the proposed rule for full-size cribs in its draft final crib standard. This change is to add the slat/spindle test procedure clarification at the end of section 7.7.1 of ASTM F 1169-10 for the testing of folding sides, as balloted and approved by ASTM:

*7.7.1 The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately.*

#### IV. Staff's Recommended Changes to Proposed Non-Full-Size Crib Standard

The proposed rule for non-full-size cribs referenced ASTM F 406-10 *Standard Consumer Safety Specification for Non-Full-Size Baby Cribs/Play Yards* with four modifications. These proposed modifications to the ASTM standard were:

- (1) Replace the mattress support impact test with the test requirement developed by Health Canada and that is also found in the full-size crib ASTM standard.
- (2) Replace the crib side impact tests to make them identical to the crib side tests found in the full-size crib ASTM standard, F 1169-10.
- (3) Restore the side latch test that was in previous versions of the standard and called "*Procedure for Vertical Drop-side Latch Tests,*" and rename it Movable Side Latch Test.
- (4) Provide a test order for the testing of non-full-size cribs that is identical to what is in the full-size crib ASTM standard.

In addition to these four technical modifications, the NPR outlined two editorial changes to F 406-10, to be included in the proposed rule. Those changes were:

- (1) Limit the standard to non-full-size cribs by excluding any/all sections in F 406-10 that pertained only to play yards.
- (2) Move the recordkeeping requirements from the Appendix to the General Requirements section.

In July 2010, around the time the NPR was published, ASTM balloted and approved several items pertaining to F 406-10. On October 15, 2010, ASTM approved a revised standard, F 406-10a, which contains these changes. Included in the changes are new or revised sections that ASTM added to match the intent of the four modifications outlined in the NPR. Although some of the wording is not identical to what the Commission proposed in the NPR, the intent is the same, and staff believes that the wording in the revised ASTM standard (F 406-10a) is either equivalent to, or provides better clarity than, the language in the NPR. In addition, ASTM also included one of the Commission's proposed editorial changes by moving the recordkeeping requirements to the General Requirements section. ASTM made several other changes to the F 406-10a version of the ASTM standard, many of which were editorial in nature, and pertained to moving section numbers around to make the order of the tests, as written, match the order in which they are to be tested. There were also changes designed to make the two ASTM crib standards more consistent with each other. Staff has reviewed these changes and believes that all but one of them does not diminish the safety protections of the standard. The change that staff does not agree with deals with the retightening of screws/bolts in the testing sequence as already discussed in the full-size crib recommendations. Thus, staff recommends that retightening not be allowed in the non-full-size crib standard as well.

ASTM issued a second ballot on October 1, 2010, that contained two additional items for the non-full-size crib standard. The balloted items were: (1) adding the slat/spindle testing of folding sides (same language as balloted for the full-size-crib standard), and (2) changing the wording on

one warning label pertaining to added netting or other covers over play yards. The balloted change in wording makes the warning applicable to both rigid non-full-size cribs as well as play yards. These two balloted items were approved to be incorporated into ASTM F 406 in November, 2010. As of the submittal date of this briefing package to the Commission, a revised version of ASTM F 406, which includes these changes, has not been published yet.

In light of the changes to F 406-10, staff is recommending that the Commission refer to the newer revision of the standard, F 406-10a, in its draft final non-full-size crib standard. Because ASTM F 406-10a encompasses all four of the technical modifications, and one of the editorial changes proposed in the NPR, it is a more comprehensive standard than F 406-10. Staff also recommends eliminating the section that was added to ASTM F 406-10a, pertaining to retightening of screws/bolts between tests. In addition, staff recommends adding the slat/spindle test procedure clarification for the testing of folding sides, and the change in the netting warning, as recently balloted and approved by ASTM.

## V. Conclusions

In conclusion, staff is recommending that the Commission adopt the ASTM voluntary standard F 1169-10 for full-size cribs, with two technical modifications for the final full-size crib standard:

- (1) Eliminate section 6.12 *“Screws and bolts that are normally removed or loosened to disassemble the product shall be retightened between the crib side latch testing and the mattress support vertical impact testing.”*
- (2) Add a test procedure clarification to the end of section 7.7.1 for the slat/spindle strength testing of folding sides: *“The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. **For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage, and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately as described above.”***

Staff is recommending that the Commission adopt the ASTM voluntary standard F 406-10a for non-full-size cribs, with three technical modifications for the final non-full-size crib standard:

- (1) Eliminate section 6.10 *“Screws and bolts that are normally removed or loosened to disassemble the product shall be retightened between the crib side latch testing and the mattress support vertical impact testing.”*
- (2) Add a test procedure clarification to section 8.10.1 for the slat/spindle strength testing of folding sides: *“The spindle/slat static force test shall be performed with the spindle/slat assemblies removed from the crib and rigidly supported within 3 in. of each end of the upper and lower horizontal rails in a manner that shall not interfere with a spindle/slat deflecting under the applied force. **For cribs incorporating folding or moveable sides for purposes of easier access to the occupant, storage, and/or transport, each side segment (portion of side separated by hinges for folding) shall be tested separately as described above.”***

- (3) Change the warning found in section 9.4.2.6 as follows (~~strikeouts~~ and **bold** indicate changes) “*Child can become entrapped and die when improvised netting or covers are placed on top of **product** ~~a play yard~~. Never add such items to confine child in **product** ~~play yard~~.*”

**TAB D:**  
**Crib Standards: Responses to Public Comments Regarding  
Human Factors Issues**



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

## Memorandum

Date: November 1, 2010

TO : Patricia L. Edwards  
Division of Mechanical Engineering  
Directorate for Engineering Sciences

THROUGH: Robert J. Howell  
Assistant Executive Director  
Office of Hazard Identification and Reduction

Robert B. Ochsman, Ph.D.  
Director, Division of Human Factors  
Directorate for Engineering Sciences

FROM : Jonathan D. Midgett, Ph.D.  
Office of Hazard Identification and Reduction

SUBJECT : Crib Standards: Responses to Public Comments Regarding Human Factors Issues

## I. Introduction

The Consumer Product Safety Improvement Act of 2008, Public Law 110–314 (“CPSIA”) was enacted on August 14, 2008. Section 104(b) of the CPSIA requires the U.S. Consumer Product Safety Commission (CPSC or Commission) 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 proposed safety standards for cribs in the Federal Register (75 FR 43308, July 23, 2010), based on the voluntary standards for full-size cribs, ASTM F 1169-10, and non-full-size cribs, ASTM F 406-10. The notice in the Federal Register requested comments from the public. This memorandum addresses comments received from the public addressing human factors issues, such as warnings, misassembly, and other consumer behaviors.

## II. Staff Responses to Comments

### Replacement Mattresses in Non-Full-Size Cribs

*Comment:* Several commenters presented arguments for modifying the warning on non-full-size cribs, which states, in part, “Use ONLY mattress/pad provided by manufacturer. . .”. The comments suggested using language that does not specify the manufacturer of the replacement

mattress because some manufacturers make mattresses for other manufacturers' products. One commenter supported an immediate change in the language in the warning, and other commenters who raised the issue supported a language change, but only after a separate mattress standard has been developed.

*Staff's Response:* The non-full-size crib standard requires all non-full-size cribs to be sold with their own mattress. These comments only relate to a warning label about replacement mattresses, and do not suggest changing the requirement to supply a mattress. CPSC staff agrees that replacement mattresses made by manufacturers other than the supplier of the non-full-size crib can achieve a satisfactory fit because there are many common sizes among non-full-size cribs. Furthermore, CPSC staff agrees that without alternatives, consumers may resort to homemade bedding surfaces when they need to replace a mattress. Pads that are "designed for" a given crib will simulate all dimensions (edge contours, overall area, density, and thickness) of the original mattress supplied by the manufacturer. A mattress with the dimensions necessary for eliminating hazardous gaps in the crib can be manufactured satisfactorily by anyone, not just the original manufacturer. Staff agrees with the commenter who supported the language change after the mattress standard was developed; thus, CPSC staff recommends waiting to revise this warning label until such time.

*Comment:* A commenter stated that, "If the CPSC mandates that consumers 'use only the mattress/pad provided by the manufacturer' then retailers will be inclined to stop offering alternative mattresses/pads."

*Staff's Response:* The proposed standard does not mandate what mattress a consumer can use, and it does not prohibit the sale of replacement mattress pads. The proposed standard simply requires a warning label on the product. This label has been part of the ASTM standard for non-full-size cribs since 1997, and Juvenile Product Manufacturers Association (JPMA)-certified non-full-size cribs have displayed that warning since that time. The commenter does not provide any data or evidence to support their contention that retailers will stop offering alternative mattresses/pads. Consequently, CPSC staff recommends waiting to revise this warning label until after a mattress standard has been created, as suggested by other commenters.

### Misassembly

*Comment:* Several commenters suggested that products should be designed so that the consumer-assembled parts cannot be misassembled. They suggested that all parts of a crib should fit only in the correct orientation and that if misassembled, the crib would be unusable.

*Staff's Response:* This suggestion originates from reports of fatal incidents, wherein a crib side was installed upside-down. CPSC staff has considered such a requirement for the standard, but cannot ascertain a reliable method for testing such a requirement. Any part of a product can be misassembled, and there are also certain parts of cribs that can be safely used in any orientation. Manufacturers could resort to more preassembly of crib components to meet this commenter's suggestion, but due to the size of an assembled crib and its components, any preassembly would likely be very limited in nature and thus would not solve the problem.

The requirement to make a crib unusable when a part is misassembled is not feasible because consumer modifications and misassemblies could be clever and forceful, given the many different parts of a crib. Questions to consider include: Can the potential misassembly involve consumer use of hand tools and off-the-shelf fasteners? What if the misassembled part is redrilled to make it fit? How can a manufacturer make a part unusable if misassembled, when the test lab is allowed to ignore the manufacturer's instructions? Furthermore, the testing permutations needed to prove the utility of some parts in all possible configurations would increase the number of tests that would have to be performed, because each part would have to be tested in every possible position. Although CPSC staff agrees that the principle of making parts oriented in only one direction is sound, the testing needed to prove the inability to use the part makes testing the requirement impractical. The requirement in the standard to clearly mark the manufacturer's recommended installation orientation addresses the problem and highlights the design principle to manufacturers.

### Utility of Drop-Side Cribs

*Comment:* One commenter claimed that drop-side cribs are necessary for some caregivers because some caregivers are shorter physically. The commenter also suggested that professional child care environments should be allowed to use drop-side cribs because infants are supervised constantly when they are in the crib, and the cribs are checked routinely for safety.

*Staff's Response:* Although CPSC staff agrees that people who are shorter in stature may have more difficulty than people who are taller when placing infants into cribs, the standard does not prevent crib designers from making cribs that have sides that lower in some manner to help access the crib interior. Cribs with a gate that swings downward on a piano hinge commonly are available and meet the requirements of the standard. Other designs that raise and lower the side of the crib are possible. These alternative designs provide exactly the same access to the crib as traditional drop-side cribs.

As for the commenter's argument regarding supervision of infants in professional care environments, CPSC staff agrees that professional child care environments generally have a higher level of supervision than the average residential child care environment. However, cribs are designed with the idea that children can be left in them unsupervised. If sleeping infants in a professional child care environment actually were supervised "constantly," then there would be no need for an infant to be placed in a crib. With respect to routine safety checks, CPSC staff does not recommend relying on human behavior for safety, when a design change can eliminate a hazard. Within the field of prevention science, behavioral solutions are always the last choice when designing for safety, because humans are fallible.

### Fall Hazards

*Comment:* A few commenters expressed concern about hazards associated with falls from cribs. Although in agreement with staff's recommendation not to lower the age recommendation or increase the side heights, the commenters urged the Commission to research these issues and develop innovative solutions, including thorough public education efforts, to limit hazards when

children climb out of cribs. Another commenter recommended that the CPSC and the ASTM consider setting a maximum crib height, as measured from the top rail to the floor.

*Staff's Response:* CPSC staff acknowledges that injuries resulting from crib-related falls rank high in terms of the number of incidents. The proposed crib standards contain labeling requirements, but not any design or performance requirements, to address this hazard. When discussing height, some distinctions must be made. The side height of a crib is the height from the top of the mattress support (for full-size cribs) in its lowest position, to the lowest part of the top rail. This dimension has a minimum that is set by each crib standard. For instance, it is 26 inches for full-size cribs. This minimum height is required to help prevent children from climbing out of the crib. One also can measure the crib height, which is measured from the floor to the lowest part of the top rail. Neither the CPSC nor the ASTM set a requirement for this measurement (which is the measurement to which the commenter refers).

Setting a maximum crib height will not reduce the number of incidents of children climbing and falling out of cribs (because that is dictated by the side height). Therefore, a maximum crib height will not prevent injuries. A maximum crib height could reduce, perhaps, the severity or number of injuries. Side height requirements for full-size cribs specify a minimum of 26 inches between the top of the mattress support in its lowest position, and the top of the lowest rail. Thus, even if the mattress support was on the floor, the minimum fall distance would be 26 inches, which still can result in an injury. No maximum crib height will eliminate injuries from falls, and setting an arbitrary number above 26 inches as a maximum height, would be design restrictive.

Many non-drop-side cribs have lower overall heights than the average traditional drop-side crib. CPSC staff took measurements of 48 drop-side cribs and 15 non-drop-side cribs and found the following:

<u>Crib Type</u>	<u>Crib Height</u>
Drop-side cribs	33" to 43"
Non-drop-side cribs	32" to 39.75"

Based on this sample, non-drop-side crib heights do not appear to be higher, but are at, or below, traditional drop-side crib heights. A shorter crib height would require less construction materials and could result in less crib weight (which could lower associated shipping costs). Thus, crib manufacturers may be inclined to offer cribs with shorter heights. CPSC staff believes that the availability of cribs with shorter heights may increase, because the clearance formerly needed under the crib no longer would be necessary for the operation of drop-sides.

### Side Heights

*Comment:* A commenter claimed that crib manufacturers now are using the bare minimum side heights and that, when drop-sides were allowed, many manufacturers exceeded the minimum side height, thereby preventing some falls. The commenter did not include data to support this assertion that crib manufacturers are reducing the side height now that they are no longer making drop-side cribs.

*Staff's Response:* Measurements of various cribs taken by CPSC staff show that there are some drop-side cribs and some non-drop-side cribs that just meet the minimum side height requirement, and that there are some drop-side cribs and non-drop-side cribs that have greater than minimum side heights.

Based on the sample of cribs examined by staff, non-drop-side crib heights appear to be at or below traditional drop-side crib heights. The minimum side height requirement in the crib standard was developed with an intended user (a child under the height of 35 inches) in mind. Even so, there always will be a certain population of children who will be capable of climbing out of a crib, even cribs with a side height greater than what is required by the crib standards. If the overall average side height of cribs decreased to the minimum side height required in the standard, and inadvertently resulted in a higher frequency of children climbing out, CPSC staff believes that the likelihood of serious injury is lessened by the reduction in the overall fall height due to shorter crib heights (based on the sample of cribs examined by CPSC staff).

### **III. Conclusion**

This memorandum presents the CPSC Division of Human Factors staff's responses to public comments about the proposed mandatory rule for cribs. Staff does not believe any changes to the proposed rule are needed to address the issues raised in these comments.

**TAB E:**  
**CPSC Staff's Response to Comment With Respect to Full-  
Size and Non-Full-Size Crib NPR**



UNITED STATES  
CONSUMER PRODUCT SAFETY COMMISSION  
WASHINGTON, DC 20207

**Memorandum**

Date: October 29, 2010

TO : Patricia Edwards  
Project Manager, Cribs  
Division of Mechanical Engineering  
Directorate for Engineering Sciences

THROUGH: Greg Rodgers, Ph.D.  
Acting Associate Executive Director  
Directorate for Epidemiology

Kathleen Stralka  
Director, Division of Hazard Analysis  
Directorate for Epidemiology

FROM : Risana Chowdhury  
Division of Hazard Analysis

SUBJECT : CPSC Staff Response to Comment With Respect to Full-Size and Non-Full-Size Crib NPR

Following the directives under CPSIA Section 104, the Commission published a Notice of Proposed Rulemaking on full-size and non-full-size cribs in July 2010. Among the comments received was a comment claiming that no incidents involving drop-side cribs occurred in child care facilities. That comment was a summary based upon multiple comments obtained from various member child care organizations. Each of the comments is repeated below in italics, followed by CPSC staff's response, which appears in normal type.

*[The commenter] recognizes that there have been injuries and fatalities associated with drop-side cribs. Unfortunately, a ban of drop-side cribs in child care settings will not address this threat to young children. Because of the safety checks on cribs and monitoring of sleeping children in centers, issues with drop-side cribs do not occur in our programs as they might in other settings.*

Staff's review of the incident data reported to the CPSC from November 1, 2007 through April 11, 2010 has shown that at least two incident reports have been received involving the structural failure of multiple drop-side cribs in child care facilities. No injuries were reported in these incidents; however, they presented the potential for serious injury or fatality.

*Additional comments from [commenter's] members included:*

- *Sleeping infants are not left unsupervised in drop-side or other types of cribs in child care centers.*
- *Children are not in cribs, except when sleeping.*

CPSC staff has received at least 11 reports of injuries involving cribs in child care facilities that required treatment in hospital emergency departments. These injuries, usually due to a fall from a crib or an impact to the crib, were sustained while the infant was in a crib at a child care facility. However, given the nature of the data collected from the hospital emergency departments, information on whether the crib was a drop-side crib was unavailable.

**TAB F:**  
**Staff Response to General Comments on Notice of Proposed  
Rulemaking for Cribs, Section 104 of Consumer Product  
Safety Improvement Act of 2008 (CPSIA)**



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

## Memorandum

Date: November 1, 2010

TO: Briefing Package

THROUGH: Robert J. Howell, Assistant Executive Director,  
Office of Hazard Identification and Reduction  
Erlinda Edwards, Acting Assistant Executive Director,  
Directorate for Engineering Sciences  
Mark Kumagai, Director,  
Division of Mechanical Engineering

FROM: Patricia L. Edwards, Project Manager for Cribs  
Directorate for Engineering Sciences  
Patricia M. Pollitzer, Attorney, Regulatory Affairs Division,  
Office of the General Counsel

SUBJECT: Staff Response to General Comments on the Notice of Proposed Rulemaking  
for Cribs, Section 104 of the Consumer Product Safety Improvement Act of  
2008 (CPSIA)

### *I. Introduction*

The U.S. Consumer Product Safety Commission (CPSC) received comments from 51 different entities regarding the Notice of Proposed Rulemaking (NPR)<sup>90</sup> for Full-Size and Non-Full-Size Baby Cribs (Docket No. CPSC-2010-0075). This memorandum provides an overview of all the general or nontechnical comments that were received and provides staff's responses to those comments. Responses to the other comments not covered in this memorandum can be found in other Tabs in this briefing package.

### *II. General Comments and Staff Responses*

#### **Drop Side Cribs Are Not the Only Problem**

One commenter stated that focusing on drop side cribs was misplaced. Rather, she suggested new crib standards should focus on the structure and hardware of cribs.

**Staff Response** - CPSC staff agrees that the safety of the drop side is just one issue and other issues, especially cribs' structural integrity and hardware, are crucial to crib safety. Although the effective prohibition of traditional drop side cribs has received a great deal of attention, CPSC's

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<sup>90</sup> 75 Federal Register 43308 dated July 23, 2010.

new crib standards have numerous provisions, particularly concerning crib hardware, that will improve the safety of cribs.

### **Mesh/Non-Rigid Full-Size Cribs**

One commenter suggested that the full-size crib standard should pertain to rigid cribs only and not to full-size cribs where the sides/ends are made from mesh, fabric, or another non-rigid material. The commenter referred to the scope of the proposed non-full-size crib standard, which is limited to rigid products only.

**Staff Response** – At this time, staff is not aware of any full-size mesh/fabric cribs currently being sold. In contrast, there are numerous non-full-size mesh/fabric cribs (i.e., play yards) currently on the market. With the non-full-size products, staff agrees that there is a need for different requirements for rigid versus mesh products, because the construction differences may make it impossible to test both the same way. The ASTM International (ASTM) voluntary standard that is referenced in the NPR for non-full-size cribs is a combined standard, meant to cover both rigid and mesh/fabric non-full-size cribs. Even though there are requirements in the ASTM standard specifically intended for mesh/fabric products, the scope of the staff’s draft final rule for non-full-size cribs is limited to rigid products because section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA) explicitly listed cribs and play yards as separate categories of products. Therefore, staff plans to develop a separate draft proposed rule for mesh/fabric non-full-size cribs (play yards).

Currently, there is no voluntary standard or proposed regulation specifically for mesh/fabric full-size cribs. However, staff’s draft final rule for full-size cribs contains general, labeling, and some performance requirements that would be applicable to any full-size crib, whether rigid or mesh/fabric. Thus, excluding these products from the scope of the proposed rule, as suggested by the commenter, would leave such cribs unregulated. Absent a voluntary standard that covers mesh/fabric full-size cribs, staff believes it is not advisable to exclude these products from the scope of a full-size crib regulation.

### **Expiration Date/Definition of Useful Life of a Crib**

One commenter asked whether cribs should have an expiration date, given that many of the identified hazards appear to result from prolonged use. The same commenter asked how one would define the useful life of a crib; for example, would it be defined in terms of the product’s age in years or how often it had been used? The commenter also asked how the disassembly and reassembly of a crib would be considered, and what effect this would have on the crib’s components and hardware.

**Staff Response** – It would be extremely difficult to include a definition of useful life or require that manufacturers provide an expiration date for cribs. As recognized by the commenter, the condition of a crib, including the security of components and hardware, can be affected by use. Moreover, each family uses a crib differently. For instance, a crib that is used by an active and strong child until age two and one-half might be expected to undergo more wear and tear than the same crib used by a less active child who transfers to a toddler bed at 18 months. And a two-

year-old crib that is disassembled and moved three times in that two-year period might be expected to show more wear and tear than a five-year-old crib of a similar make/model that was assembled and never moved. Manufacturing differences and differences in materials among cribs also might affect a crib's useful life. Thus, even keeping the use conditions identical, two different cribs likely will show wear and tear at varied rates. There is a history of at least one manufacturer offering a warranty based on the life of a crib; Rigazzi, a Canadian crib manufacturer who is no longer in business, formerly offered a "15 year or three children" warranty on some of its cribs.

### **Crib Mattress Standards/Regulations**

Some commenters expressed satisfaction that ASTM has begun developing a separate safety standard for mattress fit, and stated their expectation that the CPSC would mandate the voluntary ASTM standard once it is finalized. One comment expressed concern about health and environmental risks that the commenters believed could be associated with the use of certain flame retardants or other potentially harmful chemical agents in the manufacture of crib mattresses. The comment suggested that the CPSC "ensure that a standard or regulation for crib mattresses address both health and environmental risks that potential hazardous chemicals could pose to infants."

*Staff Response* – Although we already have regulations pertaining to the flammability of mattresses, mattress pads, and mattress sets (see 16 CFR parts 1632 and 1633), issues regarding flame retardants and other chemicals that may be applied to mattresses are beyond the scope of this rulemaking.

### **Play Yard Use and Future Regulation**

Several comments mentioned play yards. Some of the commenters were concerned that the rule might result in child care facilities or consumers using play yards in lieu of cribs. These comments mentioned the safety of these products, implying that play yards are not as safe as cribs for sleeping infants. One child care provider stated that she currently uses only play yards.

*Staff Response* – CPSC's crib standards will not address any safety aspects of play yards. Play yards are not in the scope of CPSC's two crib standards because play yards are a separate product category under section 104 of the CPSIA. Rather, CPSC will be developing a separate standard for play yards in the future. There is an existing ASTM voluntary standard for play yards, and many play yard manufacturers certify their products to the standard through the JPMA certification program

### **Use of International Standards**

One commenter suggested that the CPSC should use international standards or the relevant parts of them as a basis for our regulation. These include the Health Canada, EN (European Nation), or ISO (International Standards Organization) crib standards.

**Staff Response** – CPSC staff has reviewed, compared, and considered a variety of crib standards/regulations, including the three identified by the commenter. In addition, CPSC staff reviewed the Australian/New Zealand crib standard and three voluntary standards, one published by Underwriters Laboratories (which is no longer an active standard), and the two ASTM standards. The CPSIA specifically requires the Commission to promulgate a safety standard that is substantially the same as, or more stringent than, any voluntary standards. The Commission chose the appropriate ASTM voluntary standards for cribs to be the basis for CPSC’s crib regulations.

CPSC staff’s review of the international standards or regulations identified vast differences. Thus, assuming the commenter sought internationally harmonized requirements, even if the Commission were to adopt an international standard or regulation, the differences in the international standards and regulations would not have resulted in harmonization across multiple jurisdictions. The ASTM voluntary standard was recently revised to include one requirement (the slat/spindle strength requirement) that was based on a similar requirement in the EN standard and two requirements (the cycle test and the mattress support impact test) that are almost identical to ones found in the Health Canada regulation. There are other requirements present in the ASTM standard that are equivalent to requirements in some of the other international regulations.

Regardless, section 104(b) of the CPSIA requires the CPSC to promulgate regulations that are substantially the same as voluntary standards, or more stringent than such voluntary standards, if it is determined that the more stringent standards would further reduce the risk of injury associated with durable nursery products. Section 104(b) of the CPSIA does not mention international harmonization of standards. CPSC staff believes that the ASTM standards, with the modifications recommended by the staff, are the most encompassing and robust crib standards and thus are “more” stringent” than the ASTM standards.

### **Applicability of Standards to Cribs in Child Care Facilities**

Several commenters associated with child care organizations or child care facilities said that the crib standards should not apply to their cribs because caregivers are present at all times when babies are in cribs at child care facilities. Some commenters stated that cribs in child care facilities are specialty cribs that do not have the same safety issues as home cribs. These commenters stated that licensing and safety requirements safeguard babies in cribs in child care facilities. Some commenters stated that the crib standards are unique because, unlike other standards that hold product manufacturers or distributors responsible, the crib standards hold child care facilities (which are consumers buying the cribs from these manufacturers and distributors) responsible.

**Staff’s Response** - Section 104(c)(1) of the CPSIA states that it “shall be a violation of section 19(a)(1) of the Consumer Product Safety Act for any person to which this subsection applies to manufacturer, sell, contract to sell or resell, lease, sublet, offer, provide for use, or otherwise place in the stream of commerce a crib that is not in compliance with a standard promulgated under” section 104(b) of the CPSIA. Section 104(c)(2) of the CPSIA identifies various entities who are subject to section 104(c) of the CPSIA, and it expressly mentions persons who “based

on the person's occupation, holds itself out as having knowledge or skill peculiar to cribs, including child care facilities and family child care homes." The fact that a child care center may be subject to state regulation and licensing, or that caregivers at such facilities may be required to supervise babies in cribs, does not alter the applicability of section 104(c) of the CPSIA to child care facilities and family child care homes.

As for the commenter's claim that cribs in child care facilities are different from those used in homes, the information in CPSC staff's possession indicates that cribs used in child care facilities are often substantially the same as cribs used in homes. CPSC staff also has reports of incidents involving cribs in child care facilities and the hazard scenarios associated with these incidents are the same as those for incidents that occur in homes.

### **Commercial vs. Non-Commercial Cribs**

Several commenters suggested that the crib standards should distinguish between "commercial" and "non-commercial" cribs. One commenter asked if there should be different crib standards for child care providers or other non-family situations where cribs sustain more use, similar to the distinction between home and public playground equipment.

**Staff Response** – Section 104 of the CPSIA does not make a distinction between commercial and non-commercial cribs but, rather, requires that all cribs within the scope of section 104(c) of the CPSIA—which explicitly includes cribs provided for use in child care facilities and places of public accommodation, such as hotels—meet the crib standards promulgated by the Commission under section 104(b) of the CPSIA. Although ASTM has a voluntary standard applicable to "commercial cribs" (ASTM F 2710-08), section 104 of the CPSIA does not make such a delineation. Furthermore, ASTM's commercial crib standard requires commercial cribs to comply with either ASTM F 406 or ASTM F 1169 and this draft final rule adopts, with some modifications, both ASTM F 406 and ASTM F 1169.

### **Enforcement Policy for Commercial-Use Cribs**

One commenter suggested that the Commission establish an enforcement policy that would allow "a practical phased effective date for hospitality and commercial facilities" and distinguish between commercial and non-commercial-use products.

**Staff Response** –Section 104(c) of the CPSIA does not distinguish between commercial and non-commercial cribs, and requires that cribs in child care facilities and places of public accommodation comply with the new crib regulations. As discussed in the subsequent responses, the Commission has discretion to set effective and compliance dates for the new standards.

Although the Commission received numerous comments from child care facilities concerning their difficulties with meeting the new crib standards within six months, no comments from hotels or similar places of public accommodation were received indicating the need for additional time to obtain complying cribs for such establishments. One comment from a juvenile products trade association requested additional time for "hospitality and commercial facilities" noting that the need for these entities to "dispose of their inventories of non-compliant product

and repurchase all new replacement products ... will place a tremendous financial burden on those facilities, requiring an enormous capital investment as a result of the wholesale changes to inventory.” Although child care commenters provided detailed information about the number of cribs in child care facilities, the normal rate of replacement, and the anticipated costs of complying with the new crib standards, CPSC staff did not receive such information concerning places of public accommodation.

### **Waiving Requirements for Child Care Facilities**

One commenter suggested waiving any requirement to replace cribs in child care and Head Start programs that comply with state licensing or national accreditation requirements which mandate that all sleeping infants be within sight or sound of a caregiver at all times. Similarly, another commenter suggested a waiver of enforcement for cribs that are used in child care programs that comply with state licensing standards requiring sleeping infants to be within sight and sound of a caregiver at all times. Some commenters asked that older cribs in child care facilities be exempted from the rule (or allowed an enforcement waiver) as long as the cribs had not been recalled.

**Staff Response** – The CPSC does not have the authority to exempt or waive requirements for cribs in child care facilities or to allow older cribs to be replaced through recalls alone. The Commission does have discretion to provide additional time for child care facilities to come into compliance with the standards.

### **Longer Effective Date for Cribs in Child Care Facilities**

Most commenters supported the proposed six month effective date for manufacturers and distributors of cribs, with the exception of one commenter that requested (without providing any explanation or support) one to two years for manufacturers and distributors of non-full-size cribs. One commenter suggested the standards should go into effect immediately. Most of these commenters suggested an additional six months for cribs in child care facilities. A few commenters suggested a five year effective date for child care facilities.

**Staff Response** – The staff recognizes that complying with the new crib standards as directed by the CPSIA may place a significant financial burden on child care facilities. As discussed in other responses to comments, the CPSIA requires that child care facilities provide for use cribs that meet CPSC’s new crib standards once they are in effect. The Commission has the discretion to set the effective date for the crib standards. The staff recommends that the final rule provide a longer period for child care facilities to comply with the new crib standards.

### **Concern about Continually Replacing Cribs**

Some commenters, consisting of child care facilities, expressed concern that they would need to replace their stock of cribs every time that ASTM changes its full-size or non-full-size crib standards.

**Staff Response** – Neither the CPSIA nor the Commission’s proposed crib standards would require replacement of cribs whenever ASTM revises F 406 or F 1169. The CPSIA does require that all cribs that are manufactured, offered for sale, provided for use, or otherwise placed in the stream of commerce meet the crib standards issued by the CPSC. The CPSC’s proposed crib standards reference ASTM F 406-10a and ASTM F 1169-10; however, the federal standards do not automatically change whenever ASTM revises its voluntary standards. Rather, to change the federal crib standards, CPSC would need to engage in notice and comment rulemaking procedures and refer to a subsequent version of the ASTM standards.

### **Continued Use of Cribs by Consumers**

One commenter suggested that the Commission should include in an enforcement policy a clarification that consumers can continue to use cribs that conform to ASTM standards in effect in 2010.

**Staff Response** –The Commission intends to distribute information and education materials in connection with issuance of the crib standards and will consider such a clarification as part of those materials. Nothing in the CPSIA or in the crib standards requires consumers to replace their cribs that conform to the ASTM standards in effect in 2010 with cribs that comply with the new crib standards.

### **Testing by Firewalled Labs**

Several consumer groups suggested that the Commission not accept any “firewalled labs” to do testing for compliance with the crib standards because cribs “should meet the highest safety standards.”

**Staff Response** – Section 102(a)(2) of the CPSIA generally requires that samples of children’s products (such as cribs) that are subject to a children’s product safety rule be tested by a third party for compliance to applicable children’s product safety rules. Section 102(f)(2)(D) allows the Commission to accredit a third party conformity assessment body (often referred to as a “testing laboratory” or “lab”) that is owned, managed, or controlled by a manufacturer or private labeler as a third party testing lab if it meets certain requirements. If a firewalled lab meets the necessary requirements, its testing will be equivalent to testing conducted by any other third party testing lab. Thus, section 102 of the CPSIA does not prohibit the use of firewalled labs.

### **Formaldehyde Emissions**

One commenter stated that composite woods used in cribs should comply with the Formaldehyde Standards for Wood Products Act (P.L. No. 111-199) and that the CPSC should require that all cribs using composite wood be tested for compliance to these standards.

**Staff Response** – The Formaldehyde Standards for Wood Products Act was enacted on July 7, 2010. It amends the Toxic Substances Control Act (TSCA) and establishes formaldehyde emission standards for hardwood, plywood, medium density fiberboard, particle board, and finished goods or products containing these materials that are sold, supplied, offered for sale, or

manufactured in the United States. The Act also provides numerous exemptions from these standards. The emission standards are to be enforced by the U.S. Environmental Protection Agency (EPA) through TSCA. The law makes no specific mention of cribs. However, it appears that if cribs are made of the types of wood subject to this law, the formaldehyde emission standards would apply to them. The EPA will be developing proposed rulemaking to implement these new standards. If manufacturers have questions about the applicability of the emission standards to their cribs, they should contact the EPA.

### **Miscellaneous Clarifications**

A few commenters asked for clarification or made incorrect interpretations of the proposed rule or the CPSIA. Some comments dealt with the requirements as they would apply to child care facilities, asking if child care facilities would no longer be able to use wooden cribs or play yards. Another commenter incorrectly understood that consumers would be required to replace their cribs, and she objected to this.

**Staff Response** – The CPSIA and the proposed crib standards do not dictate the kind of sleeping environment—full-size crib, non-full-size crib, or play yard—that a child care facility must provide. Further, the proposed rules do not dictate the type of material from which a crib must be made (e.g., wooden, metal, or plastic). The CPSIA does require that any rigid crib, whatever it is made of, comply with either the full-size or non-full-size crib standards. Finally, nothing in the CPSIA or in the proposed crib standards would require consumers to replace their cribs with cribs that comply with the new crib standards.

### **Extra/Soft Bedding Regulation**

One commenter supported the proposed crib standards and suggested that the Commission also look into regulating soft infant bedding products, such as bumper pads.

**Staff Response** –Extra bedding in cribs accounted for the majority of infant deaths in cribs or other sleeping products, but there are no performance requirements for cribs that can address this issue. Education and information may be a more appropriate way to address the hazards associated with extra bedding. For instance, the recently released CPSC video on safe sleeping<sup>91</sup> is an example of an educational tool to bring more awareness to new parents of the dangers of extra or soft bedding.

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<sup>91</sup> <http://www.cpsc.gov/cpsc/pub/prerel/prhtml11/11021.html>.