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**PETITIONERS**

November 29, 2021

*Re: Petition to Require Minimum Thickness for Play Yard Mattresses*

Petitioners, Carol Pollack-Nelson, Ph.D., Alan H. Schoem, Esq. and Sarah Newens, M.S. (hereinafter "Petitioners"), pursuant to 16 C.F.R. § 1051 Procedure for Petitioning for Rulemaking, request that the U.S. Consumer Product Safety Commission initiate mandatory rulemaking to require a minimum thickness for play yard mattresses. The current standard for play yard mattresses requires a maximum thickness of 1.5" including ½" plywood. With only a maximum thickness specified, some manufacturers provide mattresses thinner than the 1.5" allowance, in some cases with only ½" of filler over the plywood floor.

Fatalities in play yards typically occur when consumers add cushioning (i.e., pillows, cushions, foam, etc.) under a baby in the play yard due to the perception that the play yard floor is too hard and inadequately cushioned. Consumer research conducted by the CPSC found consumers perceive the play yard floor to be too hard and as a result, they add soft bedding under the baby in a play yard (Durable Nursery Product Exposure Survey (DNPES), Westat, 2014; Caregiver Perceptions & Reactions to Product Safety Messages, Fohrs Marsh, 2019).

**Background & Data**

In the petition, CP-15, petitioner Joyce Davis relayed her family's tragic experience with the death of her 4-month-old son, Garret, in a portable crib with an inadequately sized supplemental mattress. "We were totally unaware of the risk of danger we exposed our son to. We used the supplemental mattress in the play yard because it looked more comfortable than the original mattress; we had done it before with our other children and knew many other parents that had done the same."

Mrs. Davis's effort to make the portable crib more comfortable for her son by using a different mattress than the one provided with the play yard is not uncommon. Incident data has long demonstrated that consumers add soft materials to a play yards and other infant sleep environments for added comfort for their baby. This was discussed in the Staff Briefing Package in response to Petition CP 15-2: "Newens and Balci-Sinha (2017) explain that to make infant sleep environments more comfortable, caregivers commonly use soft bedding and after-market mattresses, instead of, or in addition to, the original

equipment manufacturer (OEM) mattress.” (NPR, 2020, p. 89). The data demonstrate this to be a problem in various sleep environments, including play yards (Newens and Sinha, p. 48).

In reviewing the large set of play yard-related, positional asphyxia incidents to identify those associated with aftermarket mattresses, ESHF staff noted incidents involving infants ranging from 1 to 10 months old that did not involve an aftermarket mattress, but did involve the addition of a mattress-like product, such as foam, pillows, and sofa cushions. In addition, in the online product reviews for aftermarket mattresses that were included with the petition, caregivers expressed concern for infants sleeping on hard surfaces. ESHF staff concluded that extra bedding is used as a way to increase perceived comfort for the infant.

In the more recent analysis of play yard fatalities for the NPR, Harsanyi reached a similar conclusion. His analysis found soft bedding was added to the sleep area in 41 (about 35%) of the deaths. “Where reasons were provided, caregivers typically explained that they used soft bedding to add comfort and warmth” (Harsanyi, 2020, p. 92).

Where reasons were provided, caregivers typically explained that they used soft bedding to add comfort and warmth. Regarding items added for comfort, staff found that caregivers used an after-market mattress (typically 3” or greater) in 16 of the 26 cases involving play yards or non-full-size cribs. In at least 6 of these 16 cases, caregivers used the after-market mattress on top of the OEM mattress, including at least three cases involving full-size crib mattresses used to supplement another mattress in a play yard.

The perception that mattresses are too thin relates to performance requirements for play yard mattresses. The ASTM crib mattress standard, ASTM F2933, requires play yard mattresses to have a *maximum thickness* of 1.5” inches, including up to 1” of filler. However, as we have learned through participation in the ASTM subcommittee, manufacturers typically use less than 1” of filler in order to ensure their products are in compliance. Thus, in actuality, play yards often have ¾” filler or less.

Two studies have been conducted at the request of the CPSC to learn about consumer use of play yards and their perceptions and motivations relating to such use.

#### A. CPSC Durable Nursery Product Exposure Survey (DNPES) - 2013

Staff’s conclusion that consumers add bedding material to play yards because of the belief that the OEM mattress is too hard and uncomfortable is supported by CPSC’s Durable Nursery Product Exposure Survey (DNPES). This national probability sample was conducted in 2013 of U.S. households with children 5 years of age and younger (Durable Nursery Products Exposure Survey (DNPES): Final Summary Report, 2014; referenced in the Staff Briefing Package, May 10, 2017, p. 5). Survey participants were asked about items added to sleep products under the child. Researchers, found “[a]pproximately 75 percent of play yard users reported placing an item (other than the intended mattress) under the child in a play yard. Items added to play yards included pillows (~26%), blankets or quilts (~62%), and mattress pads (~12%). These findings suggest that consumers commonly add

items to cribs, play yards, and non-full-size cribs for comfort, including soft bedding material” (Harsanyi, 2020, pp. 93-94).

### *B. Fohrs Marsh Group Focus Groups – May 2019*

In May 2019, Fohrs Marsh Group conducted focus group research to learn about consumers’ safe sleep practices involving various infant sleep products, including cribs and play yards. Six in-person focus groups were convened in Baltimore, Maryland, with parents and grandparents of infants ages 2 through 11 months. Participants reported that where and how they place the baby to sleep is often influenced by what is convenient and what is comfortable for their baby. For example, several participants were aware of SIDS, the Alone, Baby on their Back, Crib (ABCs) safe sleep strategy, and the safety in not having any additional items in the sleep environment; however, they still reported adding items to the sleep environment to make the environment more comfortable for their infant—defining comfort by whether the infant sleeps all night or not (p. 16).

Overall, parents and grandparents reported that they perceive the bassinet, playard, and crib to have hard surfaces that are not comfortable for their infant. A parent noted purchasing a memory foam mattress for their infant in order to make the sleep environment more comfortable and to provide their infant with a better sleep experience. Laying a blanket down or purchasing a comfortable mattress for the bassinet or the playard were also commonly reported additions to the sleep environment to make it more comfortable.

The majority of grandparents reported adding products they perceive as comfortable to their infant’s sleep environment. Some grandparents recounted that they add pillows and blankets to the sleep environments when the infant is sleeping, noting the items add comfort and warmth. (Fohrs Marsh, 2019, p. 17).

The inconsistency between participants’ understanding of the safest way to place a baby to sleep and actual safe sleep practices aligns with previously published research findings.

Kennedy et al. (2017) completed interviews and focus groups to further understand the obstacles that caregivers face when adopting AAP recommendations, and found that caregivers do have a general awareness of sleep safety best practices. However, there is still a gap between knowledge and behaviors: non-compliance still occurs, and caregivers remain resistant to follow recommendations (Ahlers-Schmidt, Schunn, Dempsey, & Blackmon, 2014).

When soft bedding (e.g., blankets and pillows) is added to an infants’ sleep space, it presents a risk of suffocation, particularly if the baby is placed to sleep on their side or prone or if they roll to prone position and are too young to clear their nose and mouth. When sofa cushions, pillows, and ill-fitting mattresses are added to a sleep environment, there is the additional risk of suffocation due to gap entrapment. To mitigate these risks, warnings on play yards advise consumers not to add soft bedding and to only replace the mattress pad that came with the play yard with a mattress of the same dimensions. Yet warnings are often overlooked, particularly on products for which use is intuitive.

Focus group participants in the Forhs Marsh study were shown a warning label (see Figure 1 below) similar to one commonly found on a common infant sleep product (Fohrs Marsh, 2019, pp. 23-24). “Nearly all participants indicated that they were aware of the warning label presented in the activity” (Fohrs Marsh, 2019, p. 24). While many participants reported reading a warning label when they see it, others mentioned that they skim or skip the warnings, noting that they are “all the same” or for liability purposes. “Therefore, they tend to gloss over the labels and do not necessarily internalize them” (p. 25).

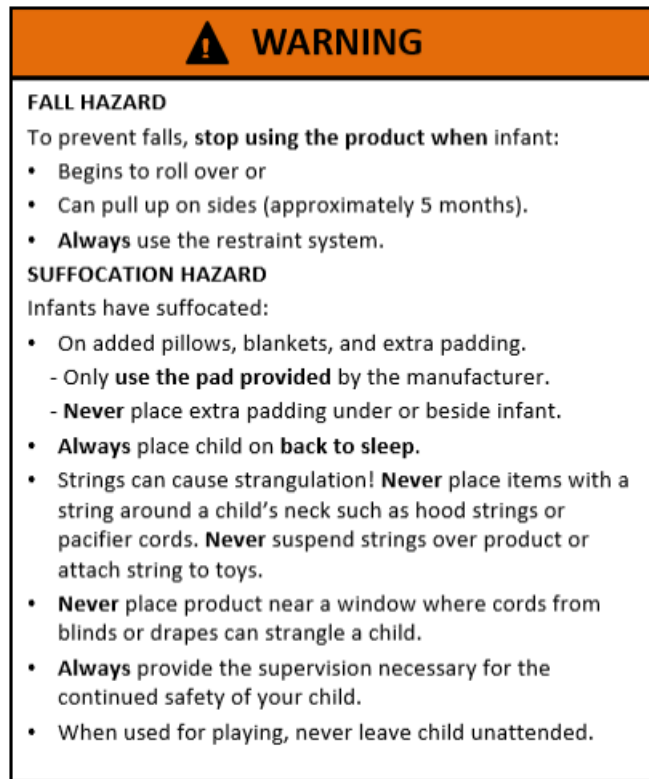


Figure 1. Warning label

### Petitioners’ Request

To reduce the perception by consumers that the play yard floor is too hard and soft bedding should be added, we are petitioning to require a minimum play yard mattress thickness of 1.5 inches with a minimal tolerance allowed; this depth is presently the maximum thickness allowed by the play yard standard. As discussed above, to ensure they do not exceed this thickness, some manufacturer’s mattresses currently on the market are actually thinner than what is permitted perhaps because there is no tolerance allowed. In addition to a minimum thickness of 1.5 inches, we recommend a maximum space allowance of 0.5 inches between the side of the mattress and the mesh side of the play yard. A maximum gap size of 0.5 inches will effectively prevent entrapment between the mattress and the mesh. Further, a 0.5-inch maximum gap size is consistent with the maximum gap proposed by the ASTM Task Group on Play Yard Fit and Thickness. revision to the standard.

This petition also requests the Commission establish a maximum play yard mattress thickness of 3 inches. This is based on the CPSC's data and analysis of that data over a 17-year period. CPSC Staff undertook a review of play yard fatalities reported from Jan 1 2000 to Dec 31, 2016. In that time, there were six cases of head entrapment in an aftermarket mattress that was too small for the play yard, leaving a gap ranging from 2 to 7 inches between the side of the mattress and the play yard wall. The Staff Briefing Package did not identify any entrapment incidents involving well-fitted mattresses (i.e., with gaps of 1 inch or less).

Mattresses measuring 2 to 3 inches thick that properly fits a play yard (i.e., with a gap between the side of the mattress and the mesh side of the play yard no greater than 1 inch) can, and has been, safely used in play yards. Over the last decade, millions of supplemental mattresses with a thickness of 2 to 3 inches have been sold and safely used on play yards. At the same time, we know that thinner mattresses have been associated with deaths due to the addition of soft bedding under the baby as a result of consumers' perceptions that the thin, hard mattress is not comfortable for their baby.

ASTM F406 – 19 seeks to make play yards safer. However, keeping the 1.5" maximum thickness in this standard does not make the product safe and is not effective in protecting infants. As long as consumers perceive play yard mattresses to be too thin and uncomfortable for their infant, they will continue to add soft bedding (e.g., another mattress, pillow, blankets) underneath their baby. No warning can overcome this perception. Rather, the hazard pattern can and should be addressed by a performance requirement that increases the minimum thickness for play yard mattresses to 1.5 inches with a small tolerance added, e.g., ¼ inch or such other tolerance as the Commission determines to be appropriate, so that manufacturers will have flexibility to meet the minimum thickness requirement.

Deaths in play yards can be prevented, but only if changes are made to the standard. With decades of data, we know what presents a hazard and what does not. The time is long overdue for standards to catch up with the data.

Respectfully submitted,

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