LOG OF MEETING
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Meeting of the ASTM Play Yard Mattress Fit & Firmness Task Group Call

DATE OF MEETING: 15 February 2018

PLACE OF MEETING: Virtual (teleconference)

LOG ENTRY SOURCE: Hope Nesteruk (ESMC)

COMMISSION ATTENDEES: Hope Nesteruk (ESMC), Suad Wanna-Nakamura (HSPP), Steve Harsanyi (ESHF), Max Sanborn (LSM), and Celestine Kish (ESHF)

NON-COMMISSION ATTENDEES: Contact ASTM for attendee list.

SUMMARY OF MEETING:

Scope

Task group agreed on the scope and goals:

1) Investigate issues of fit, firmness, and thickness of play yard mattresses
2) Develop performance standard(s) to address potential entrapment between mattress and flexible play yard side

Background

CPSC staff gave a brief overview of the briefing package on the supplemental mattress petition, basically reviewing the executive summary here: https://www.cpsc.gov/s3fs-public/Petition%20CP%2015-2%20-%20Petition%20Requesting%20Ban%20on%20Supplemental%20Mattress%20for%20Play%20Yards%20with%20Non-Rigid%20Sides%20-%20May%2010%202017_3.pdf?Y1NBUBkgTX2PTz2eYfFOW9Laec77bgVx

Issues

1) Perceived comfort

Discussion points raised by task group members:

- Need to address consumer perceived comfort issues without compromising safety.
- CPSC's Durable Nursery Product Exposure Survey (DNPES), data suggest that:
  - About 75 percent of play yard users replace or add soft items to the original play yard mattress;
  - Approximately 12 percent of the play yards in use have aftermarket mattresses; and,
  - Only about 25 percent of play yard users do not place anything other than the original mattress under their child.

2) 1-inch requirement

Discussion points raised by task group members:

- Historical memory of task group members suggests that the 1-inch was developed decades ago to prevent pocket entrapment issues exhibited in older style play yards (A-frame) with a different folding mechanism than commonly used today. At the time, there were pocket-entrapment deaths with thicker mattresses, but the thinner, 1-inch thick mattresses were not associated with deaths, which seems to be the origin.

- Some task group members mentioned that many play yards today use less than 1 inch of foam padding in order to account for manufacturing variations in foam.
- Mention that some aftermarket mattresses are 3-inches thick, and could be up to 4 inches when added to existing mattress. Manufacturer stated he has no reported incidents.
- If a mattresses is thicker than OEM, should also be aware of side-height issues. Thicker mattresses reduce effective side-height.

3) Incident data

Discussion points raised by task group members:

- Of the 17 years of play yard entrapment incident data, it appears that no incidents occurred when the mattresses and sleep area was flat, firm, and fit (without gaps).
- Some felt that thicker mattresses should be fine if no gaps between mattress and side of play yard.
- One person stated that the data does not support that flexible sides pose an increased risk of side entrapment.
- Others felts that flexible sides may contribute to entrapment by affording a gap.
- One person stated that there have been 16 instances of deaths due to entrapment in standard cribs.
    - Group questioned if other variables like incorrectly sized mattresses or cribs were the cause.
    - Data was obtained by a manufacturer through a CPSC FOIA request and has not yet been shared with the ASTM subcommittee (nor the CPSC staff on the call).

4) Potential paths

Discussion points raised by task group members:

Standardize sizes

- Support from some members of group.
- Example: mattress size A, size B, and size C.
- Some felt this would be an innovation killer.
- Alternative solution: have several standard sizes and also allow custom shapes and sizes.
- Some concerns raised of increased gaps from multiple standard sizes.
- Consensus was to table the issue for now, but not to forget about it for later discussions.

Max/min thickness

- Discussion was limited. Too difficult to determine at the present time.

Performance test for gaps

- Most of the group felt this was a path worthy to pursue.
- Australian standard is a bit confusing
    - States no gaps
    - Uses a 50 mm probe to test for entrapment in flexible sides
    - Unclear rational for 50 mm
        - Possible from shoulder depth
        - Possible for facial anthropometry
- Corey briefly discussed a proposal for entrapment using a small head probe.
    - Proposal and rationale was distributed before the meeting.

Next steps

1) Task group members will consider potential performances tests
2) Task group will reconvene by conference call to discuss potential performance tests in mid-March
3) At the April ASTM subcommittee meeting, task group will have a working meeting with samples of play yards and thicker mattresses.