

**LOG OF MEETING**  
**DIRECTORATE FOR ENGINEERING SCIENCES**

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1998 APR -9 A 10:30

**SUBJECT:** Meetings of 13 ASTM Subcommittees for Juvenile Products

**DATE OF MEETING:** March 30 to April 1, 1998

**PLACE:** Renaissance Hotel  
Orlando, FL

**LOG ENTRY SOURCE:** John Preston, ES *gap*

**DATE OF ENTRY:** April 9, 1998

**ATTENDEES:** See attached table

**SUMMARY OF MEETINGS:**

**Monday, March 30, 1998**

**Gates & Enclosures** - The meeting began with discussion and resolution of negatives and comments received in a main committee ballot of revisions to the ASTM F1004 standard for gates and enclosures.

Comments from Dorothy Drago regarding editorial changes to sections 1.6, 3.5, 4.3, 5.2, 5.5, and 6.2 were accepted. A comment from Bob Craig on section 3.3 was also accepted. A negative from Jon Robinson regarding the location of the probes used to determine finger entrapment was ruled non-persuasive but a figure will be added to clarify the intent of the test.

A negative from Shelley Deppa regarding a warning in 9.6 was ruled persuasive and the warning was changed.

In response to a letter from a consumer representative there was discussion on a requirement to address clothing entanglement on gates. The CPSC representatives were asked to search incident data files to determine if entanglement incidents have been reported.

A final topic of discussion was data from three test labs to determine the repeatability of a test to determine the ability of a gate to resist dislodgement when subjected to a horizontal force. It was concluded that there was insufficient test data to determine the repeatability of the test procedure.

**Stationary Activity Centers** - A draft standard dated 11/18/97 was distributed. The draft contained changes made at the last meeting held on 11/6/97.

There was discussion on the potential pinching hazard associated with products that rock and whether the standard should address hazards to children outside the product. As drafted, the standard does address hazards to children "interacting with a stationary activity center" as well as a child occupant (see 3.2).

In a discussion of the requirement addressing stability when a child leans over the edge of the occupant space the following formula will be used:

$$X = [(maximum\ occupant\ height - height\ of\ tray) \div 2] - 1$$

where X = the distance from the inside edge of the occupant space to the location on an aluminum angle that a 17 lb weight is placed. The instructions must specify an occupant's maximum height or age.

There was discussion on what is meant by tip over in 7.3.4. There was also discussion on how to define limited motion and how to test it.

With the changes made at this meeting, the standard will be sent to ASTM for a subcommittee letter ballot.

**Strollers** - A proposal (see Enclosure B with minutes of 11/4/97 meeting) to change the multiple occupancy stability requirement at 6.3 was approved.

Section 8.3 was changed to clarify that quotation marks are not required in the warning statements.

In a discussion on a proposal to change the crotch strap requirements, John Preston was asked if there were incidents in which children restrained by only a waist belt slid out of strollers. Preston responded that he was aware of only one incident in which this may have occurred. The report of the incident was not clear whether the child was unrestrained and became entangled with the waist belt or whether the child had been secured by the waist belt.

Some changes to the language of the restraint requirements at 6.4 were approved but without a requirement for use of the crotch strap to be mandatory if the waist belt is to be secured.

The chairman drew attention to a 10/31/97 memo from John Preston that was included with the minutes as Enclosure C. The memo concerned an umbrella style stroller that was certified as conforming to the ASTM F833 standard but had a latch mechanism that could be released by the application of a single force in a certain direction. This did not appear to meet the requirement in the ASTM standard for "two distinct and separate actions on the part of the user to initiate folding of the product." After discussion, it was agreed that 5.3.1 would be changed to state "shall require two distinct and separate actions but not a single motion on the part of the user to initiate folding of the product."

The changes made at this meeting will be sent to ASTM for a letter ballot.

**Infant Bedding** - The meeting began with discussion and resolution of negatives and comments resulting from a main committee letter ballot of the new standard. Significant issues were a negative with a request to re-examine the 7 inch string length requirement. After considerable discussion, this was ruled non-persuasive. Another negative was cast because the standard "falls short in addressing the suffocation potential of pillows, blankets and comforters.

CPSC staff were asked to determine if there are incidents in which seams on infant bedding became unstitched. Staff were also asked to determine if there have been entanglement incidents involving long canopy drapes on cribs.

With the changes made at this meeting, the standard will be sent to ASTM for a rebalot.

**Tuesday, March 31, 1998**

**Cribs** - A summary of the results of crib side tests conducted by eight manufacturers was distributed (see Attachment A). The tests had been conducted in accordance with a CPSC staff proposed procedure that had been agreed to at the last subcommittee meeting held on January 29, 1998. The summary of these tests showed that four manufacturers experienced failures during the cyclic load test using a 35 lb weight dropped 250 times from a height of 3 inches. In addition, one manufacturer reported on some additional crib side tests conducted by his company using the same test procedure. He reported that tests of 20 hard maple sides resulted in no failures occurring in the cyclic or static load tests but four sides failed during the subsequent spindle torque tests. Ramin wood sides with improved glue joints experienced two failures during the cyclic load test after 209 and 167 cycles and seven of these sides failed the torque test. Ash sides with the improved glue joint all passed. During tests of 20 hard maple sides with the improved glue joint, two sides sustained a fractured spindle.

CPSC staff distributed a table showing the results of tests conducted at the Engineering Laboratory on drop sides of four different brands of cribs. Five drop sides of each brand were tested and only one side of one brand sustained a failure during the cyclic load test. Upon examination it was noted that the spindles of this crib were too short to fully enter the holes in the crib rails. As a result, pins inserted to reinforce the glue joints were too close to the spindle ends and pulled out.

Manufacturers expressed the opinion that the CPSC proposed crib side test would eliminate many cribs that would not be expected to fail during normal use. They suggested that the crib side cyclic load test parameters should be either 250 drops of a 30 lb weight or 100 drops of a 35 lb weight. Another round of tests was proposed with test results to be sent to JPMA by April 27th. A telephone conference to discuss the test results and make a decision on which test parameters should be selected will be held on May 4th.

**Walkers** - It was announced that the revised walker standard that was approved on 10/10/97 is expected to be published in May 1998. A petition to CPSC to request a change to the requirements for finger entrapment in holes and coil springs is being prepared but needs some additional work.

Tests of walkers to the new stair fall procedure have shown inconsistencies in the results. Proposed changes to the procedure to reduce variation in test results were distributed. The changes mostly affected the location of the CAMI dummy within the walker during these tests and the position of the wheels at the beginning of the test.

CPSC staff reported that some walkers that they had tested were inconsistently failing the stair fall test after ten consecutive tests. CPSC staff requested the subcommittee to consider a requirement for multiple tests. The subcommittee was concerned with the time required to run the test multiple times. Manufacturers agreed to retest their products multiple times to determine if there were inconsistencies.

In a discussion of a possible change to the walker latch requirements, it was decided to leave these as they are unless CPSC staff can show that latch failure incidents are occurring.

**Baby Swings** -An agenda was distributed that contained a draft of certain requirements for a voluntary standard for baby swings.

CPSC staff distributed a draft of an introduction for the standard. There was discussion on the 4th item in the draft introduction which stated that the standard attempts to minimize positional asphyxia in cradle swings. A manufacturer contended that such incidents were most likely due to SIDS.

Incident data provided by CPSC was discussed. It was noted that this data was not a statistical representation of baby swing incidents.

In a discussion of requirements limiting the size of leg openings, CPSC staff noted that these would have to preclude passage of a probe with dimensions of 2.2 in. x 4.2 in. to be effective in preventing the passage of the smallest occupant's torso. Discussion of a requirement restricting the size of leg openings was tabled until CPSC staff obtains additional incident data to illustrate the need for such a requirement.

Requirements for restraints in baby swings may be taken from the ASTM standard for high chairs.

In discussion of a requirement for a static load test, the issue of the weight of the maximum occupant was questioned. A 25 lb child was suggested as being the maximum that may be expected to use a baby swing.

Tip over requirements may use a CAMI newborn dummy as an occupant. Suggestions for the parameters for such a test were requested. CPSC staff requested samples of baby swings in order to participate in the development of tip over requirements.

CPSC staff volunteered to provide a summary of IDI reports to the chairman concerning baby swings for discussion at the next meeting.

The chairman requested that members of this subcommittee submit to him any recommendations for requirements and tests prior to the next meeting.

**Infant Carriers** - It was agreed that the subcommittee should initially concentrate its efforts on the development of a standard hard shell carriers. Standards for soft carriers, backpack carriers and bouncers may follow.

A discussion of handle failures ensued. It was noted that there requirements for handles may differ according to the construction of the handle. Some carriers have handles that tend to deflect under load and provide feedback to a consumer that the handle is being unduly stressed. Carriers with a more rigid handle do not provide such feedback. It was noted that there are incidents in which handles broke in addition to those in which the handle latch failed.

The chairman requested that suggestions for warnings on carriers should be sent to him by May 31st.

A summary of the incident data provided by CPSC staff showed the following pattern: handle - 38, tip over - 13, fell off (elevated surface) - 12, small parts - 12, restraints - 14. It was noted that restraint requirements would be developed only for non-car seat carriers since car seat carriers must be equipped with restraints that comply with NHTSA requirements.

**Hook-On Chairs** - The meeting began with a discussion of comments that were on pages 3 and 4 of a letter accompanying a ballot in the main committee ballot of 10/6/97. These

pages had not been forwarded to the chairman at the time of the last meeting. Other changes to the standard that were made at the last meeting in response to negatives and comments were reviewed.

The standard will be sent to ASTM for approval by the Committee on Standards

**Wednesday, April 1, 1998**

**High Chairs** - It was announced that there were no negatives cast in a subcommittee letter ballot of a revision that will add a passive crotch restraint to the high chair standard. Some editorial comments from CPSC staff were received and were incorporated into the standard. The revision was sent to ASTM last week for a main committee letter ballot. The balance of the standard that was revised in a previous letter ballot is being edited by ASTM and is expected to be published in May. Certification to this standard will begin on 12/1/98.

Proposed requirements to address collapse of high chairs were distributed. There was discussion on whether the cyclic weight should be a solid mass or a bag filled with steel or lead shot or sand. It was decided that a bag, 6-8 inches in diameter filled with steel shot would be used. The proposed requirements will be sent to ASTM to be mailed out for a subcommittee letter ballot.

As an item of new business a draft of changes to paragraph 1.3 of the scope of the high chair standard was distributed. The changes would allow a high chair without a tray to be certified to the ASTM F404 standard. After some changes were made to the proposal it was agreed that it should be sent to ASTM for a subcommittee letter ballot.

**Play Yards** - The chairman announced that about 25 letters had been mailed to play yard manufacturers requesting that they perform tests in accordance with a CPSC proposed top rail strength test for play yards with hinges in the mid-point of each top rail (Attachment B to minutes of 11/5/97 meeting). He stated that four manufacturers had submitted test data as follows:

Manufacturer	Sample	Deflection under 100lbf load (in.)	Permanent deflection (in.)
W	1	Broke	n/a
W	2	1.75	0.50
W	3	2.50	0.88
W	4	1.38	0.38
X	1	7/8	1/8
Y	1	1.50	1.00
Z	1	Broke	n/a
Z	2	?	0.15

In discussion on the proposed test, one manufacturer opposed the proposed test and another stated they did not receive the letter requesting that they perform tests. The chairman called for a motion on this issue which was duly made and seconded. The proposed test was approved by a vote of 12 for and 4 opposed.

A proposal to change the floor pad thickness requirement at 7.9 of the standard (attachment C to minutes of 11/5/97 meeting) was approved.

A proposal to delete the brand names of the force gauges in the play yard standard (Attachment D to minutes of 11/5/97 meeting) was also approved.

The changes approved at this meeting will be sent to ASTM for a subcommittee letter ballot.

There was discussion on a requirement addressing the flammability of play yards. It was noted that data provided by CPSC revealed that only four incidents could be addressed by a flammability requirement. Of these, three were cases where a child ignited a play yard with a cigarette lighter and in one, a child used a butane barbecue lighter. Manufacturers noted that cigarette lighters are now required to be child resistant and barbecue lighters will soon be subject to a similar requirement. It was also noted that play yards are subject to the Federal flammability of solids requirement and test at 1500.3(c)(6)(vi) and 1500.44. Therefore, a decision was made to terminate the activity to develop additional flammability requirements for the ASTM play yard standard.

**Toddler Beds** - There was discussion on a requirement to address entrapment in partially bounded openings such as might exist between the end of a guardrail and the bed end structure. John Preston suggested that the subcommittee consider the requirements for such openings in the baby gate standard, ASTM F1004. He also described the origin of these requirements. The chairman said he would draft proposed requirements, similar to those in the gate standard, prior to the next meeting.

The mattress deflection requirement and test at 5.1.2 and 7.1.6 was reviewed. A motion was approved to revise 5.1.2 by adding the words "more than 1 inch" between the words "deflect" and "below." The revision will be sent to ASTM for a letter ballot.

In a review of section 7.1.5 (item on a memory sheet) it was decided that no change was necessary to this test.

The chairman noted that a comment submitted in a ballot of revisions to the high chair standard suggested removing the 1.375 inch dimension from the wedge block figure which is similar to that in the toddler bed standard. A motion was approved to delete this dimension from the hook on the toddler bed wedge block.

The need for a spindle test was discussed and it was decided that such a test is not needed. This item was deleted from the memory sheet.

The use of developmental statements rather than age and weight to define the minimum and maximum users was discussed. Some manufacturers were opposed to such a change and it was deleted from the memory sheet.

**Bath Seats** - it was announced that one negative vote was received in the recent subcommittee letter ballot and several affirmative votes included comments. The negative vote was cast by a manufacturer who stated that the stability test procedure could not be

conducted as written in the draft standard because the horizontal bar clamped to the bath seat would touch the test surface as the seat began to tip. An alternative procedure, drafted by the chairman was distributed. This proposed that a vertical bar be clamped to the bath seat and a horizontal force be applied to the bar. After some considerable discussion, it was agreed to accept this test method. In a discussion of the test parameters, it was agreed that a force of 17 lbf be applied to the bar at a height above the tray of  $(20.4 - H) \div 2$ .

The chairman noted that he voted negative on the wedge block test at 9.3 because it would require a major redesign of current products. It was suggested that this test be removed from the draft standard and was placed on a memory sheet for future discussion. John Preston agreed to provide an updated table of incidents to the subcommittee to determine if submarining was a common type of incident. A motion was made and seconded to find the chairman's negative vote on 9.3 non-persuasive. The motion was approved with 3 for and 2 against.

A CPSC staff comment on Section 7 was placed on a memory sheet for future action and a comment on 7.4, to add an instruction to discontinue use if a suction cup detaches was not accepted although it was pointed out that all current manufacturers have such a statement in the instructions. It was noted that there is currently a "bath turtle" being sold that does not have suction cups. CPSC staff comments on Sections 9. and 9.6.3 were not accepted.

Attachment

DISTRIBUTION

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File





NAME	COMPANY/AFFILIATION	MEETING ATTENDANCE												
		1	2	3	4	5	6	7	8	9	10	11	12	13
Kandi Mell	JPMA	X	X	X	X	X	X	X	X	X	X	X	X	X
Keith Moehring	Simmons					X								
Julie Morris	Gerry Baby Products	X	X	X	X	X	X	X		X	X	X	X	X
Lisa Ouellett	Hasbro/Playskool	X	X	X	X					X	X	X		
Mary Ann Pante	Generation II					X							X	
Kitty Pilarz	Fisher-Price	X	X	X	X	X	X	X	X	X	X	X	X	
John Preston	CPSC	X	X	X	X	X	X	X	X	X	X	X	X	X
Joe Pusiteri	Bassett Furniture				X									
Neal Rickmers	Evenflo	X	X	X		X	X	X		X	X	X		
Dave Roberts	Storkcraft					X								
Jon Robinson	Gerry Wood Products	X	X			X								
Charlie Roos	Evenflo	X	X	X		X	X	X		X	X			
Nate Saint	Graco	X	X	X	X	X	X	X						
Jill Scandridge	ITS/RAM	X	X	X	X	X	X	X		X	X	X	X	X
Sam Shamie	Delta		X	X	X	X	X							
Keith Shelton	Detroit Testing Lab.	X	X	X	X	X	X	X	X			X		X
Bill Suvak	Child Craft					X								
Tim Snyder	Fisher-Price	X	X	X	X	X	X	X	X			X		X
Robert Waller	JPMA				X	X	X	X						

