

U.S. CONSUMER PRODUCT SAFETY COMMISSION

LOG OF MEETING

CPSC/OFFICE OF
THE SECRETARY

1999 OCT 21 P 4:51

SUBJECT: Meeting of ASTM Subcommittee F15.29 for Public Playground Equipment

DATE OF MEETING: September 29, 1999 **PLACE:** ASTM Headquarters,
West Conshohocken, PA

LOG ENTRY SOURCE: John Preston, ES *JP*

DATE OF ENTRY: October 20, 1999

COMMISSION ATTENDEES: John Preston, ES & Terri Rogers, CCA

NON-COMMISSION ATTENDEES:

Kert Artwick, GameTime
Jay Blanke, Sportsplay
Matt Bolland, Newco
Scott Burton, Safety Play
Monty Christiansen, Penn State Univ.
Curtis Cleveland, Playworld Systems
Susan Coker, NYC Parks Dept.
Paul Doppelt, PD Consulting
Bill Duffy, NSSEA
Jack Gonzenbach, Miracle Recreation
Mike Hayward, Little Tikes
Teri Hendy, Site Masters
Jeff Jodarski, BCI Burke
Steve Lauzan, Parkitects

Tim Lorenzo, Sportsplay
Arthur Mittelstaedt, Rec. Safety Institute
Tom Norquist, GameTime
Bill Pencille, Playground Concepts
Darryl Rarich, Playworld Systems
Lloyd Reese, Little Tikes
Bob Stluka, Miracle Recreation
Wesley Sutton, GameTime
William Weisz, Playground Environments
Tom Williams, L.A. Steelcraft
Fran Wallach, Total Rec. Management
Randy Watermiller, Landscape Structures
Dick Waugh, BCI Burke

CPSA 6 (b)(1) Cleared

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Products Identified

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Comments Processed.

SUMMARY OF MEETING:

A manufacturer passed around a newspaper clipping describing the death of a 10-year-old boy who became entangled with a bicycle inner tube attached to a rope on a tube slide in a playground. The incident occurred in Hoskins, Nebraska. John Preston said he would check to see if this incident was in CPSC data files.

The chairman called for reports from other playground-related activities/organizations which follow:

CPSC – John Preston said that a CPSC special study of playground-related injuries reported during 1999 would be finished in October and a report of the study would be available sometime during 2000. He also drew attention to a CPSC staff paper regarding a comparison of playground injuries occurring in 1998 with those in a 1990 CPSC report. The paper had

been presented at the International Playground Safety Conference at Penn State University in August. He said that this paper concluded that there did not appear to be a significant reduction in injuries over the eight year period. He said that the special study may provide more information on injury trends since it included in-depth investigations of most of the reported injuries. Preston also mentioned that the CPSC staff has begun inspections of selected manufacturers of home playground equipment in order to determine the extent of conformance to the ASTM F1148 standard. Finally he said that a CPSC engineering laboratory report on impact attenuation tests of certain loose-fill playground surfacing materials had yet to be released.

Playground Surfacing Subcommittee – It was reported that a revised surfacing standard, ASTM F1292-99, was now available. The revision adds a free-fall test method as an alternative to the existing guided headform test.

Home Playground Subcommittee – The subcommittee met on 9/28/99 and made a number of editorial changes to the F1148 standard and to the rationale in an appendix to the standard that will shortly be republished as ASTM F1148-99.

NPSI – Training institutes continue. It was noted that a new regulation in California requires playgrounds to be inspected by persons who have become Certified Playground Safety Inspectors through the NPSI program.

Playground Accessibility – A final rule for accessibility to playgrounds is expected to be published in 2000. A manufacturer has received a contract from the Access Board to develop a training manual for playground accessibility.

Soft Contained Playground Equipment – Letters commenting on the new standard were discussed.

International Playground Safety Conference – Transcripts of papers presented at the August 19-21 conference will be available before the end of the year. It was announced that Monty Christiansen, the organizer of the conference, will be taking a leave of absence to develop a curriculum for maintenance of playground equipment.

Playground Equipment for Children < 2 years – Several sections for the new standard have been completed but are being held until completion of all sections before going out for letter ballot. Videotaping of children is underway to aid in developing requirements for access/egress.

Playground Fencing Subcommittee – A new standard is currently being balloted by members of the ASTM F14 committee on fences and closes on 10/14/99.

Chairman Wallach reported that there had been a 73% return in the recent ballot of four revisions to the ASTM F1487 standard. The chairman noted that she had voted negative on all items to prevent the revision from going forward for approval until all items were

satisfactorily resolved. Item 4 on the ballot concerned the removal of the reference to the CPSC small parts regulation and received 5 negative votes. These were ruled persuasive and, in addition to leaving the reference in the standard, language will be developed for the main body of the standard that will address compliance to the CPSC regulations for small parts, sharp points and sharp edges.

The chairman requested that the meeting break into previously established working groups to discuss revisions to the F1487 standard. John Preston, the author of this log, joined the entrapment and entanglement working group to discuss possible changes to the requirements for neck entrapment in partially bounded openings. Preston said that he would like the working group to consider changing 1) the angle on the 'A' section of the "fish probe" and 2) adding a requirement for a partially bounded opening to permit free passage of the 9" diameter head probe if the 'A' section of the probe (currently 6.1" in width) can pass through the opening.

Preston passed out copies of a proposed mandatory standard for bunk beds that contained a test template similar to the "fish" probe" in the F1487 playground equipment standard but had an angle of 75° on the 'A' section rather than the 55° specified for the probe in the F1487 standard. He said that the rationale for the 55° angle on the playground equipment probe was based on the "engineering judgement" of a committee that was convened by NRPA in 1975 to draft requirements for a CPSC mandatory standard for public playground equipment. The NRPA committee stated that, in their opinion, angles greater than 55° would not entrap a child's neck. Preston noted that a template used in the ASTM standard for baby gates and enclosures (ASTM F1004) to determine when angles present a neck entrapment hazard has a 75° angle on its base. This was selected because a neck entrapment fatality had occurred on an accordion style baby gate having a 71° angle in a diamond shaped opening in the body of the gate. He noted that other entrapment incidents in gates and enclosures had occurred in 'V' shapes that were over 55°. Preston also said that probes used in the Federal standards for full-size and non-full-size cribs to prevent neck entrapment similarly had angles of about 75° on the base and would prohibit any 'V' shape with an included angle of less than this value.

In response to a question regarding neck entrapment incidents in 'V' shapes in the structure of playground equipment, Preston responded that he was aware of two incidents on home playground equipment one of which was a fatality that occurred when a child's neck became entrapped in an angle that appeared to be about 30-35° and the other was a non-fatal entrapment in an angle of about 60°.

Preston also explained that, in his opinion, partially bounded openings in playground equipment could conform to the present requirement addressing neck entrapment but could still present an entrapment hazard. Using diagrams drawn on a chalk board he illustrated a 'U' shaped opening that, because it was wider than 6.1 inches (the width of the fish probe), would conform to the partially bounded opening requirements. However, since it was less than 9 inches in width, and would not permit passage of the 9-inch diameter head probe, it would present an entrapment hazard to a child attempting to pass through the opening feet-first. He said that because such an opening had no boundary at the top, it was not subject to

the torso and head probe tests in the requirement for completely bounded openings. There was heated discussion on this issue but the working group made no commitment to change the current requirements addressing entrapment in partially bounded openings.

After a lunch break, the meeting of the entire subcommittee was reconvened. Discussion on some changes to the F1487 standard was as follows.

Add fall heights to the requirements for individual pieces of play equipment.

Permit a piece of stationary play equipment to overlap the use zone at the end of a swing support structure so long as there was at least a 9-foot separation.

Spiral slide slope should be measured by determining the length of the mid-point of the bedway (L) and the difference between the height of the entrance and exit (H). For the slope to be no greater than 30° , $H \div L \leq 0.50$.

A discussion of the "toggle test" in the European playground equipment standard did not result in a commitment to add it to the F1487 standard.

It was agreed that the definition of a designated play surface would be changed to a surface that is over 2 inches wide and 2 inches long and less than 30° to the horizontal.

It was agreed that a platform will be defined as: A flat surface for more than one user to stand and move around on.

The next meeting of the ASTM F15.29 subcommittee will be held on February 9, 2000.

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