

LOG OF MEETING

SUBJECT: ASTM F08 Committee Meeting

DATE OF MEETING: November 04 to 08, 2002

DATE OF LOG ENTRY: November 29, 2002

PERSON SUBMITTING LOG: George F. Sushinsky

LOCATION: Fountainebleau Hilton
Miami Beach, FL

CPSC ATTENDEES: George Sushinsky

NON-CPSC ATTENDEE(S): Members and guests of ASTM F08 Committee on Sports Equipment and Facilities. Attendance lists were not available at the time of this report.

SUMMARY OF MEETING:

Staff from the Laboratory Sciences Mechanical Division (LSM) of the U.S. Consumer Product Safety Commission (CPSC) attended various task group and subcommittee (s/c) meetings in part or in full during the 4-day meeting. They included:

- Mock Trial sponsored by the F08 Committee
- ASTM F08.10 10 on Bicycles - (working group 01 on handlebars)
- ASTM F08.17 on Trampolines - (task group and s/c meeting)
- ASTM F08.30 on Fitness Products - (s/c meeting)
- ASTM F08.53 on Headgear and Helmets - (shirtsleeves meeting)
- ASTM F08.63 on Playground Surfacing Systems - (s/c meeting)
- ASTM F08.66 on Sports Facilities - (working group meeting on skateboard parks)

Mock Trial (11/05/02)

ASTM Committee F08 sponsored a mock trial featuring a hockey helmet and a personal injury resulting in reduced mental capacity of an 18-year-old hockey player. A trial scenario and information regarding subcommittee meeting minutes and a draft headgear standard were provided to the audience. The issues of standards, meeting minutes, changes to standards affecting product design, and expert witness testimony were intertwined in the largely unrehearsed presentation.

ASTM F08.10.01 Task Group on Handle Bars and Stems (11/07/02, 2:00 PM to 3:30)

This meeting was called to order by task group chairman, Gerald Bretting. Minutes

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from the May meeting were approved. The first order of business was a discussion of a stem thread standard. A draft document based on ANSI Z1.4-93 is in preparation. The ANSI standard would be a basis for selecting a sample size to achieve an AQL. The AQL would be decided by each individual company based on the needs for each product. A draft of the standard was to be prepared for the task group's consideration.

The primary topic of discussion was the CPSC staff's request to the ASTM F08.10 subcommittee to develop a standard in response to the handle bar injury petition before the Commission. George Sushinsky provided the CPSC update on activities since the May meeting. He stated that the response to the petition was in final review prior to forwarding it to the Commission. The briefing package was expected to be available by the end of November. No organized response to the CPSC request was forthcoming at this meeting. Mr. Bretting suggested two possible approaches to ameliorate handle bar injuries: filled handle bar ends to prevent "cookie cutter" type punctures, and limited handle bar rotation for 20" bicycles. One task group member (David Duff from Huffy) passed around a prototype handle bar grip with an expanded diameter and designed to provide some deflection under a compressive or side load. A general discussion followed. The task group voted to table most of their current backlog of activities and to concentrate on the handle bar injury issue. Each member was tasked to come forward at the next meeting with an idea to address the reported problem.

The meeting adjourned at 3:30 PM.

ASTM F 08.17 on Trampolines (Task group meetings) (11/06/02)

Padding Task Group – Bud Nichols, leader

The meeting started with introductions and approval of the minutes from the May 2002 meeting. Bud Nichols noted that there was old business concerning padding retention, durability and shock attenuation. Phillip Aja (A J Landmark – producer) requested the task group to consider strengthening the requirements for trampoline padding retention. Specifically, he addressed the issue of tie strength by passing out a summary memo of CPSC staff tests on padding strap strength. The memo (Attachment 1) was initially sent to the subcommittee in 1999. General discussion followed. Some members felt that recent changes to the F381 standard addressed the concerns and that such a test was available in section 6.3. It was pointed out that while a test method exists, there is no minimum requirement needed to pass the test. One manufacturer stated that his padding retention did not rely on tie straps and that the test would not test the integrity of his padding's retention. The discussion also was concerned with whether the test was to be done on a pad installed on a trampoline or on part of the pad installed in a test machine. It was suggested that the complaint history of each manufacturer can lead to the specification of minimum failure loads. A number of labs and manufacturer's representatives agreed to test their products according to 6.3 and to report those numbers to Lani Loken (ITIA) by 12/15. A report of the testing was to be available by 02/01/03.

There was a brief discussion on the confidentiality of the data for this and in a general sense. John Kuchno discussed the potential involvement of F08 concerning confidentiality and disclosure.

With regard to the shock attenuation test, George Sushinsky suggested that the subcommittee needed to find a knowledgeable source for foam properties. He mentioned that Martyn Shorten, (Biomechanica, Ltd. and ASTM F08) may be capable of translating the shock test requirements to more simplified material property tests, and he agreed to contact him about the problem. Laurel Jensen described some of his thoughts on the matter. (At the F08 Awards meeting on 11/07, two people from Armacell, LLC expressed an interest in working with the trampoline task group on this issue.)

Enclosure task group – Bud Nichols, leader - (11/06/02)

One negative from Steve Moulton (JumpSport) and one comment from George Sushinsky (CPSC) were received on the latest ballot (10th revision) of the draft enclosure standard. Bud Nichols suggested that the negative and comment be deferred for discussion at the subcommittee meeting. The negative and the comment were handed out along with minutes from the May 2002 task group meeting.

Mr. Nichols (Jumpking) discussed an issue with the enclosure produced by Jumpking. Jumpking had received reports of young children receiving lacerations from a bracket that attaches the enclosure supports to the trampoline supports. In the incidents the children used a 3/8-inch wide ledge to climb onto the trampoline padding. While not a sharp edge by test standards, the weight of the children were sufficient to cause the injury. Jumpking has developed a rubber sleeve to address this issue. Mr. Nichols used the incidents to suggest that ladders would have provided a safer access to the trampoline. He suggested that the subcommittee may want to reevaluate the issue of including a ladder with a trampoline. George Sushinsky noted that about 16 percent of the injuries occur to children under the age of 6 years. The concern of CPSC staff is that ladders would make it easier for the youngest children to access the trampoline surface without adult supervision. Further action was deferred.

ASTM F08.17 on Trampolines (Subcommittee Meeting) – John Kuchno, Chairman
(11/07/02)

The meeting was called to order at 9:00 AM. Introductions were made. Approval of the minutes with editorial changes suggested by Pam DeVore (Trampolines, USA) and George Sushinsky (CPSC) from the May 2002 meeting was completed. Ballot deadlines of December 1 and March 7 were announced. After administrative items and approval of the minutes, reports from the various task groups and standards' activities were presented.

Floating trampoline task group – Bud Nichols, leader

Mr. Nichols reported that there was little activity in this area. Ron Gilbert (Spinal Cord Injury Foundation) listed potential hazards including: water depth, drowning, nighttime visibility, diving. Bud Nichols added sinking and the need for multiple bladders as an issue. Comparisons were made with floating wooden platforms and the possible need for designated areas. As a consumer item, the solution to these issues would probably rely on supervision

and owner vigilance.

Trampoline Enclosures – Bud Nichols, leader

Mr. Nichols announced that one negative and one comment were received on the s/c ballot for the 10th draft of the standard on enclosures. The comments from George Sushinsky were reviewed and discussed. A comment on 6.1.1 was tabled for task group consideration and the rest were accepted after discussion and modification where appropriate.

After a break, Mr. Sushinsky passed out NEISS injury estimates from 1998 to 2001 and noted the decrease in 2001 injuries after steady increase the previous 3 years.

Steve Moulton discussed his negative. He summarized his concerns in several areas:

- Location of impacts – need to test at the barrier opening
- Number of impacts and specified user weight – need to increase above the recommended three impacts and to specify a minimum test weight.
- Language for the mass (Specified user weight) of impact test load is ambiguous.
- Add a weight rating to the enclosure carton so that it is available to the consumer prior to purchase.
- Need for a static or falling weight test on netting to test an abuse situation seen with enclosure use – jumper grabbing and hanging onto the netting (at least temporarily).
- Self-closing requirement for the enclosure entrance.

The ensuing discussion showed support for some of the proposals. Fred Reiber (Hedstrom) noted that some of the tests were not appropriate for all designs of enclosures. The six items were voted on separately. Each motion to find the negative non-persuasive passed by a vote of 10-yes to 1-no and 1 abstention.

The enclosure ballot, with editorial changes will be submitted to ASTM for full committee consideration.

Padding task group - Bud Nichols, leader

Mr. Nichols summarized the activities of this group. Four labs are to test padding attachment strength in an effort to place a minimum value on the failure of the attachment.

Steel Task group -

The steel task group is trying to define what should be in their document.

The meeting was adjourned at 12:30 PM.

ASTM F08.30 on Fitness Products – S/C meeting, Harv Voris, S/C Chairman (11/07/02 from 1:30 to 2:00 PM)

George Sushinsky stopped by and picked up documents handed out to the s/c members. He passed these documents on to Tom Caton (CPSC) on his return to the office. While Mr. Sushinsky was there the discussion centered on amendments to the 7th draft of the standard for selectorized strength and a discussion of European activities. Several European standards are

now in final draft including elliptical trainers and spinning bikes.

ASTM F08.53 on Headgear and Helmets – Shirtsleeves Meeting for Headgear, Randy Swart, leader (11/0702 from 3:50 to 5:15 PM)

The items discussed at this portion of the meeting concerned rodeo and pole vault headgear, SALI – a high viscosity fluid with beads that may be suitable for multiple impacts, surface finish of anvils, MEP verification; a request from Dave Halstead to Congress for a mandatory equestrian headgear standard, and “green” buckles. George Sushinsky provided comments on MEP verification noting that the CPSC standard allows MEP impacts of 400 ± 20 which is based on a round robin test with the Industry. This is broader than the ASTM standard which many new labs cannot meet because MEP pads are no longer available from their original source at SGS U.S. Testing.

ASTM F08.63 on Playground Surfacing Systems – S/C Meeting, Robert Heath, S/C Chairman – (11/08/02)

The meeting was called to order at 8:05 AM. Introductions were made, and a timekeeper (Ted Iljes) was appointed. The minutes from the May 2002 meeting were approved without changes.

Review of ballot comments:

Review of the Standard Guide Ballot (F08.63 02-02)

The Standard Guide ballot received four negative votes. They were not available for review. Three of the negatives were withdrawn after the changes were considered editorial and change in the draft document. A negative from MS Ketchum was found non-persuasive. George Sushinsky raised a procedural question and requested that the negatives and comments be made available to the s/c prior to the meeting. It had been done so in the past and allows proper consideration of the comments. The Chairman agreed to that request for future meetings.

Organizational updates:

Updates were presented from IPEMA (Ilges), CPSC (Sushinsky), CSA (Huber), ASTM F15 (Hayward and Henderson), National Program for Playground safety (NPPS) (Olsen)

IPEMA:

IPEMA has 32 members of which 22 are certified.

CPSC:

A draft of a Home Playground Handbook is in CPSC review and will be available for public comment prior to publication. Similarly, a revision of the Public Playground Handbook is scheduled for FY 03 and will be available for public comment during the revision process.

CPSC has received reports of playground fires from spontaneous combustion and arson in deep-mulch surfacing. One spontaneous combustion event was witnessed by fire department

personnel on a stake-out in Texas. The events are characterized by rapid flame spread and flaming airborne particles. These occurrences may indicate the need for a flammability test for surfacing.

CSA:

Standard Z614-98 is out for ballot. It contains revisions that eliminate the surfacing table (Table 1 from the CPSC Handbook), has a pro/con format for surfacing, allows ASTM F1292 or EN 1177 as the test protocol for surfacing.

ASTM F15:

F1487 – no changes relative to surfacing in the latest revision.

F1918 – ballot approved with the exception of accessibility. Revised standard contains a flammability requirement for surfacing around the equipment.

National Program for Playground safety (NPPS)

NPPS had received 2 more years of funding from the Center for Disease Control (CDC) to use to redo the 1998 playground report card. Outreach materials (videos and CDs) are currently available on playgrounds and playground safety.

New Business:

Kathleen Smith presented a report from an international round robin using a hemispherical headform. The results were better than achieved in the US using a C-sized headform. She also noted that any decisions to eliminate HIC would affect the international market because the international standard used HIC and not G in certifying surfacing materials.

Revision of ASTM F1292:

(The following is taken from the draft minutes prepared by the s/c secretary, Walt Henderson.)

The task force presented the proposed revised standard F1292. The full text of this revision is available at www.astm.org under F08 Forums.

The primary goal of the revision is to improve the reproducibility of the standard from its current $\pm 50\%$ in order to reduce the risk of death or serious injury from surfacing incorrectly certified (due to testing errors) as complying with the standard.

This will be accomplished with detailed requirements for test apparatus components, a system integrity check, and equipment performance verification requirements (all discussed in Section 8 of the draft standard). With these changes the reproducibility should be improved to approximately $\pm 10\%$ for HIC and $\pm 5\%$ for G-max.

Task group members (Shortyn, Henderson, Huber, Sushinsky) discussed all aspects of the draft standard. The sections that generated the most discussion and feedback were those on sample preparation, sample conditioning and an optional wet/frozen test.

Comments on these and other sections were noted by task group members and will be considered in the revision of the current draft. The revised draft will be submitted for sub-committee letter ballot. Results of the letter ballot will be presented and discussed at the May 2003 meeting.

ASTM F08.66 on Sports Facilities – Working Group on Skateboard Parks, John Masone, Leader – (11/08/02 from 12:45 to 1:30)

George Sushinsky attended this meeting in response to a field inquiry from Hawaii on standards for skate board parks. The task group is working on a first standard. There are international standards (Germany and others). I provided the group with current NEISS data on skateboard injuries. Mr. Masone asked if the injury data could break out skateboard parks as a location. I offered to find determine that for the subcommittee. All of this occurred informally during a lunch break where the group had ordered pizza.