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LOG OF MEETING

SUBJECT: ASTM Subcommittee Meetings on Playground Equipment for: Public Use, Home Use, Soft Contained Play Equipment, Children Under Age 2 Years, and Aquatic Environments

DATE OF MEETING: February 27 - March 2, 2001

PERSON SUBMITTING LOG: Scott Heh - ESME *SH*

LOCATION: ASTM Headquarters, West Conshohocken, PA

CPSC ATTENDEES: Scott Heh - ESME *SH*

NON-CPSC ATTENDEE(S): Available upon receipt of ASTM meeting minutes.

SUMMARY OF MEETINGS:

ASTM SUBCOMMITTEE F15.44 - PLAY EQUIPMENT FOR CHILDREN UNDER TWO

TUESDAY, FEB. 27, 2001 9:00 A.M. - 5:00 P.M.

WEDNESDAY, FEB. 28, 2001 8:30 A.M. - 12:00 P.M.

Chair of the sub-committee, Betsy Caesar, called the meeting to order at 9:00 A.M. The minutes from the September 2000 meeting were approved as printed.

Several subcommittee correspondence items were discussed, including:

- CPSC will be collecting data on injuries sustained by children under two.
- Debbie Tinsworth will release information from a study on playgrounds and injuries that children sustain sometime this spring.
- Dr. Margulies at the University of Pennsylvania is involved in the next level of study regarding children's skulls. Betsy has been in correspondence with Dr. Margulies. She indicated that children's skulls are more vulnerable for children 0 - 6 months. After 6 months, it is not known what happens about the vulnerability of the brain; that research has not been conducted yet. For more information about that research see: by Margulies, Susan S. and Thibault, Kirk L., 2000, "Infant Skull and Suture Properties: Measurements and Implications for Mechanisms of Pediatric Brain Injury," Journal of Biomechanical Engineering, 122:364-371.
- Dana Wisner has pictures of the informal observations of indoor play settings that he conducted.
- Betsy also indicated that there is a new Installers Condensed Guide to the CPSC Handbook for Public Playground Safety. It was published by the National Playground Contractors Association, 2001.

WEDNESDAY, FEBRUARY 28, 2001

Reports from the Under 2 Subcommittee working groups

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Parameters for Research About Injuries at Childcare Centers Task Group

The group decided that it would be useful to try to gather injury statistics from childcare centers before going any further in determining the severity and type of problems that may exist. The group will try to locate a large chain that would let us analyze their injury data. In addition, it would be useful to do a random survey of childcare centers in the state that has the largest number of centers. The study would gather information on: the kind of injuries that occur, whether it was an indoor or outdoor setting, the equipment and surfaces involved, and whether other toys within the play area were involved. The National Program for Playground Safety (NPPS) will investigate the possibility of running the study.

The group worked on revising a Table for Rung Ladders, Stepladders, Stairways, and Ramps that provides provisions for access slope, tread, rung, and ramp width, tread depth, rung diameter; and vertical rise. The group agreed that some follow-up work is needed on items such as rung diameter, step ladder slope, and ramp slope to explore whether specialized provisions are necessary for children under age two years.

The grouped discussed what provisions may be needed for climbers. It may be necessary to differentiate characteristics of certain climbers. For example, climbers intended to be scaled in a prone position (not intended to be walked on) may need different requirements. Climbers that are greater than a certain specified slope should have a means of hand grasping.

The layout working group worked from the layout section of the Public Playground Standard (F1487) and made proposed changes to adapt the layout provisions to play equipment in the under 2 environment. One of the notable changes include use zones that extend 48 inches from the equipment instead of the 60 inches called out for public play equipment for older children.

SUBCOMMITTEE F15.09 – HOME PLAYGROUND EQUIPMENT

February 28, 2001

The group worked on revising language for a warning label that is required on residential lawn swings. The warning addresses the potential for entrapment between a seat back and a seat if a child is place in the swing in the wrong direction.

The group continued progress in developing provisions for toddler swings. The group continued to refine the language for proposed test provisions for retention system performance and resistance to swing tip-over. Several members of the subcommittee agreed to meet again to conduct field stability tests of various tot swings in order to make refinements to the draft test methods.

SUBCOMMITTEE F15.36 - SOFT CONTAINED PLAY EQUIPMENT

WEDNESDAY, FEBRUARY 28, 2001

Due to conflicting schedules with other playground meetings, I was not able to attend the soft contained play equipment meetings. Below is a summary of these meetings taken from the ASTM meeting minutes.

It was noted that a law is being proposed in Tennessee that would require Soft Contained Play Equipment (SCPE) playgrounds to be inspected every 6 months, starting July 1, 2001.

The results of the January, 2001 letter ballot were reviewed. Several negative votes were discussed. Some votes were withdrawn after discussion. Some negative votes could be addressed through editorial changes. Other negative votes were found persuasive and required revisions to the balloted language. Walt Henderson will work on the latest draft revision and sections of the F1918 Standard will go out to individual ballot.

SUBCOMMITTEE F15.29 - PUBLIC PLAYGROUND EQUIPMENT

THURSDAY, MARCH 1, 2001:

The Chair of the Subcommittee, Fran Wallach, called the meeting to order.

CORRESPONDENCE

Several items of Subcommittee correspondence were discussed, including:

- Fran wrote a letter to CPSC requesting that the Commission conduct further research on playground surfacing issues. CPSC responded that they did not have plans to undertake a project like that at this time.
- Fran received a letter from Scott Burton indicating his appreciation of the safety of the equipment that manufacturers now produce.
- Art Mittelstaedt submitted a request that the group consider a concern about grounding metal equipment. That request was given to the Materials Task Group
- Jay Beckwith requested that the group consider standards for climbing walls. That request was given to the Falls and Equipment Task Group.
- Dynamo Sports requested that the group consider standards for a to-fro-rotating swing. That request was given to the Equipment Task Group.
- Mogens Jensen indicated some concern about handholds. The issue was turned over to the Entrapment Task Group.
- Some new states (MD, TN) are dealing with legislation regarding playgrounds. Susan DeFrancisco is keeping track of those procedures at John Hopkins. She also noted that North Carolina is dealing with a program called Smart Start.
- There is a new magazine out about playgrounds. One of its purposes is to raise awareness of the safety of playgrounds as well as bring the public, including childcare centers, schools and park departments, information about many kinds of playgrounds. The premier issue was published in March. Information about the magazine follows:

Today's Playgrounds, Harris Publishing Company, Inc., 520 Park Avenue, Idaho Falls, ID 83402. Phone Number: 800-638-0135.

OTHER REPORTS

Art Mittelstaedt reported that A Standard Guide for Fencing for Public, Commercial, and Multi-Family Residential Use Outdoor Play Areas has just been published.

Walt Henderson reported the ASTM Playground Surfacing Subcommittee is re-balloting a standard for wood fiber. Also, a round robin test for the impact attenuation pad is being conducted. The new guide standard for explaining the surfacing standard is in process.

Fran Wallach reported that an english version of the CEN Playground Safety Standard is available.

ORGANIZATION REPORTS

A. Consumer Product Safety Commission – Scott Heh reporting.

We are awaiting the results of a study regarding playground injuries sustained by children. Debbie Tinsworth is conducting that study. It is completed and in the process of being reviewed.

B. American with Disabilities Act (ADA) Accessibility - Fran Wallach reporting

The guideline was given to the public on October 18, 2000 and published in the Federal Register. It was corrected and republished on November 17, 2000. The public is awaiting the Justice Department's response. Kompan received the contract to write the interpretation of the guideline. That interpretation is not yet ready for distribution. Further, the courts ruled the government employees cannot file a grievance against the government for failure to adhere to ADA.

C. National Playground Safety Institute (NPSI) – Monty Christiansen reporting

The group had a meeting to coordinate and revise its curriculum. There is a possibility of a two-tiered program to require higher competency of those auditing playgrounds. In addition, the exam committee will meet to add new questions. NPSI will teach accessibility as recorded in ASTM plus a variation of the ADA recreational guidelines. Its purpose is to teach about safety in relation to ADA, not about ways to deal with design compliance to ADA. The committee is also working on a code of conduct for Certified Playground Safety Inspectors (CPSI's).

D. International Playground Equipment Manufacturer's Association (IPEMA) - Jack Gonzenbach reporting.

Meetings will occur during the week. Jack indicated that they certified 21 equipment manufacturing companies and 15 companies regarding surfacing. He also indicated that Peggy Greenwell was invited to attend their meeting for an open forum and discussion about ADA on Thursday, March 1, 2001, and non-members are invited to attend. Also, several Canadian companies are meeting with IPEMA.

E. Boundless Playgrounds – No Report

F. National Program for Playground Safety (NPPS) - Donna Thompson reporting.

An age appropriate design conference was held on the University of Northern Iowa (UNI) campus September 14-17, 2000. Experts representing play, playgrounds, design, child development early childhood, and children with disabilities attended. Hopefully, a monograph about the results of the conference will be published in the fall of 2001. A newsletter was published this Fall and the Spring edition is nearly ready to be sent. The study of mats used under play equipment indoors is completed. An article, based on the results, is anticipated for publication in March, 2001. User-friendly information based on both of the surfacing studies

will appear on the NPPS website as soon as the articles are published. The study of play areas at airports is completed. The signage study to determine adults' notice of the signs and their corresponding actions is completed. Data is being analyzed. Selecting Playground Surface Materials pamphlet has been published. The group has attended conferences in Washington, D.C. and the Community Built Conference in Arizona. Representatives will present at the National Elementary Principals, National School Board Association and AAHPERD Conferences. During National Playground Safety Week, NPPS will host a U.S. Summit in Des Moines, IA on April 23, 2001. Representatives from the Departments of Education, Natural Resources, Human Services and Public Health from each of the 50 states have been invited to attend. Representatives from Hawaii, Indiana, Iowa, Virginia, CDC, CPSC, and the American Academy of Orthopedic Surgeons have been invited to present information about special projects they have been engaged in regarding playground safety. Governors of all 50 states have again been invited to proclaim National Playground Safety Week April 23-27, 2001.

Mike Hayward reported that there has been no action taken on harmonization between ASTM and Canadian Standards Association (CSA) playground standards.

BALLOT RESULTS

Dr. Fran Wallach reported that we have an adequate ballot return and that we received a number of negatives that we need to address and resolve. She expects that after this meeting we will be publishing an updated standard that should be available in June.

OTHER BUSINESS

Kathie Morgan presented Teri Hendy with the first F15 Outstanding Achievement Award. She was honored for her many contributions to F15.09 sub-committee as its chair, for her contributions to the F1487 Committee, and for her technical contributions since 1985. Her picture was taken for the Standardization News, as was a picture of all of those attending the F15.29 meeting.

NEXT MEETING DATES

The next meeting dates are:

Monday, May 7 – Children Under Two Orlando, FL

Tuesday, May 8 – Home/Soft Orlando, FL

Wednesday, May 9 – Public Orlando, FL

Thursday, May 10 – Aquatic Play Orlando, FL

In addition, the week of October 22-25 has been reserved for meetings at ASTM HQ.

REPORTS FROM WORKING GROUPS

A. Materials, Rotating/Rocking Equipment, Moving Components, etc., Rob Pepper reporting

They had no negatives to address and have reviewed the changes made at the last meeting to the figures for accuracy. All drawings have been reviewed and they will begin looking at new items, including grounding playgrounds and slip resistance.

B. Entrapment, Cable Rides, etc., Teri Hendy reporting

Item #13 from the last ballot on Section 6.5.1.3(4) had a negative from Dorothy Drago. The Working Group found her negative to be persuasive as an editorial change. Thus, this Section will read as follows: "Section 6.5.1.3(4) - The area between small, lightweight moving parts necessary as an integral part of the play activity (for example, abacus beads, bell clappers, telephone receivers, etc.), provided that this area is not considered a pinch, crush or shear point as defined in 3.1.20.

The Working Group is also looking at the toggle test for entanglement. They have drafted a preliminary test and they want to be consistent with the European and Canadian Standards. They are asking manufacturers if they are using the test and, if so, which one. Further, they would like to know how they conduct the test and apply it.

C. Accessibility, Swings, Use Zones, etc., Steve King reporting

The Working Group resolved a number of negatives, as follows:

Item #5, Section 9.2.1:

- Art Mittelstaedt agreed to withdraw his negative if we added the following sentence to the end of Section 9.2.1: "However, Section 9.8.1 Placement of Play Structures and Equipment, applies."
- Both Scott Burton and Ken Kirn had a comment in that the phrase "walk tubes" should be "talk tubes." The Working Group accepted this as an editorial correction.

Item #6, Section 8.3.5:

The task group discussed negative votes and comments related to the calculation of fall height from overhead ladders and track rides. The Working Group considered all of the comments and decided to revise Section 8.3.5 and treat it as an editorial change. Section 8.3.5 would read, "The fall height of upper body equipment shall be the distance between the highest part of the equipment and the protective surface below. Equipment support posts, with no designated play surfaces, are exempt from this requirement."

Item #8, Section 9.6.2:

The task group discussed comments received on the ballot item that revised the calculation of the fall zone at the exit of a slide. One comment indicated that it is not clear where to measure. Another comment suggested that the new fall zone does not adequately account for the user's maximum velocity. Scott Heh noted that this revision will change the use zone in several instances and there may not be enough information to persuade CPSC to change the requirements in the CPSC Handbook. The Working Group reviewed all the negatives and comments and voted to amend the language in the ballot to the following: "Section 9.6.2 - The use zone at the lower exit end of the chute or slide bed shall be a minimum of X where X equals the vertical distance from the protective surfacing at the lower exit to the highest point of the sliding surface." In addition, the last ballot proposed eliminating Section 9.6.2.1, but it needs to remain in the standard and should read as follows: "Section 9.6.2.1 - The use zone at the lower exit end of the chute or slide bed shall extend in the direction of the descent a horizontal distance of not less than 72 in. (1830 mm) but need not be greater than 96 in. (2440 mm) from the lower exit." It was noted that with this change, Bob Stluka and Scott Burton would withdraw their

negatives. For the other negatives it was moved, seconded, and passed by a vote of 23 For, 0 Against, and 5 Abstentions to: Find Delmer Harris' negative non-persuasive, as he used the incorrect velocity formula, not taking into account friction and deceleration. Finally, the Working Group noted and discussed CPSC's concerns, but decided to move ahead with these changes.

Item #9, Section 9.3.3.4:

Negatives were received from Art Mittelstaedt, Curtis Cleveland, Thom Thompson, Mike Hayward, Thomas Bowler, Darryl Rarich, Judy Acker-Smith, Brett Duffy, and Francis Wardle. Objections were regarding placement, circulation, and surfacing issues of equipment such as sand diggers in comparison to spring rockers.

The Working Group decided to editorially amend this section by adding the following sentence to the end of Section 9.3.4: "However, Section 9.8.1 Placement of Play Structures and Equipment, applies." It was reported that with this addition, all the negatives except for Francis Wardle would be withdrawn. It was voted to find his negative non-persuasive as it was not related to what was being balloted.

D. Falls, Access & Egress, Slides, etc., Jean Schappet reporting

The Working Group resolved the following negatives:

Item #11, Section 3.1.x, Definition for Upper Body Equipment:

The Working Group made the following editorial change after discussing a negative vote by Dorothy Drago: Section 3.1.x Upper Body Equipment, n. overhead equipment designed to support a child by the hands only (for example, horizontal ladders, chinning bars, and ring ladders).

Item #12, Section 8.x Stepping Forms

Darryl Rarich and Curtis Cleveland withdrew their negatives and Ken Kirn's negative was found persuasive and the Working Group decided to withdraw the potential addition of a section in the standard covering stepping forms. After lengthy roundtable discussion, it was noted that Tom Norquist and Elaine Sherman are reviewing Section 10 of the standard and will compare the American with Disabilities Act Accessibility Guidelines (ADAAG) with the Access Board to look for things that do not agree and for items that are safety oriented but not covered in the document (e.g., ramp lengths, landings, etc.).

The task group voted to add to the front of Section 10 an editorial reference to the scoping provision of the Access Board regulations. In addition, the group will look at any potential change of reference to ADAAG.

The group agreed to amend the scope of the standard to exclude site furnishings such as, but not limited to, picnic tables and benches.

The group voted to add a drawing for a T-Swing into the standard.

AQUATIC PLAY EQUIPMENT COMMITTEE MEETING OF F15

March 2, 2001

Call to Order – John Scott as co-chair called the meeting to order. He and Mary Lou Iverson will function as co-chairs in an effort to continue the communications between the F15 Subcommittee and the F24 Subcommittee.

History – John Paul Scott gave a brief history of concerns that led to the desire to create a standard to address aquatic play equipment. F24 has spent the last ten to fifteen years working with the idea of developing standards for water slides. The World Water Park Association (WWPA) had been considering a standard as well. The F15.29 Public Playground Subcommittee had expressed concern to ASTM relating to the use of playground equipment in pools and splash areas. A year ago representatives from F24 and F15 met to discuss the possibilities of cooperating to develop either a separate standard for aquatic play equipment or to harmonize the way each subcommittee deals with similar issues relating to aquatic play environments. The F24 subcommittee met in the fall to discuss issues relating to the development of standards for aquatic play equipment.

Membership – A concern was expressed that perhaps people that might have an interest in participating in this committee were not aware of the existence of the aquatic task group. Kathy Morgan stated that notices had been sent out to both F24 and F15 regarding this activity. It was decided that before the group could target an audience that there was a need to sort out what the standard would cover so that membership can know whether or not they wish to participate.

Existing Water Related Standards – The members of F15 asked that John Scott explain some of the different organizations and standards that were being referenced by the F24 committee.

Discussion of existing standards – A flow-chart was used to illustrate the breakdown of the existing standards and the types of equipment or activities that were covered. The desire of the committee is to create a standard for Aquatic Equipment Safety.

Discussion:

There was much discussion relating to the direction that the committee should take. In order to begin to break down the issues relating to water play equipment safety the following were listed:

- Waterslides – 2m and less, amusement rides greater than 2m
- Wet equipment
- Dry equipment getting wet
- Play fountains vs. architectural fountains

This discussion led to listing our “talking points” and placing them in categories. The participants were asked to review the talking points and make additions or recommendations for changes to the list. They were also asked to identify the items as either a performance/recommendation provision or a prescriptive/technical provision or a combination of each. They were also asked to supply any resources or references for these items to be used by

the task group. The list and recommendations were to be sent to Kathy Morgan before April 20th so that they can be organized for the next meeting.

The next meeting is to be held in Orlando, Florida on May 10th.