

2/2/96

LOG OF MEETING
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Meetings of ASTM Subcommittee F08.53 Headgear Task Groups

DATE OF MEETING: December 7-8, 1995

PLACE: Norfolk, VA

LOG ENTRY SOURCE: Scott Heh, ESME *SH*

DATE OF ENTRY: December 13, 1995

COMMISSION ATTENDEES: Scott Heh, ESME

NON-COMMISSION ATTENDEES: Available upon receipt of meeting minutes.

SUMMARY OF MEETINGS

This log summarizes meetings of various headgear task groups within the ASTM F0.53 Headgear Subcommittee.

Baseball Face Guard Task Group and Baseball Headgear Task Group

The group discussed whether there is a need to revise the test methods and criteria in ASTM F910 (Standard for Face Guards for Youth Baseball), and whether there is a need for ASTM to develop a new standard for baseball headgear. The Headgear Subcommittee Chairman stated that the CPSC was petitioned by the American Academy of Facial Plastic and Reconstructive Surgery. The petition requested that the Commission adopt a consumer product safety standard requiring that all protective batting helmets intended to be used by children under that age of 15 be manufactured with a face guard that conforms to ASTM Standard F910. I said that the Commission will decide on the petition after staff completes a special study on the extent of the facial injury hazard in youth baseball.

A task group member stated that the performance of a baseball face guard can depend on the structure and design of the baseball helmet. It is therefore important to consider that baseball faceguards and helmets work together as one unit when considering new test methods and performance criteria.

The baseball headgear task group will continue to review epidemiological data and will review baseball headgear standards from Japan and the National Operating Committee for Standards on Athletic Equipment (NOCSAE) as starting points in considering the development of an ASTM standard. A meeting date was tentatively scheduled for January 26, 1996 at the University of Tennessee in Knoxville to discuss possible revisions to the ASTM F910 face guard standard.

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Base Standard Headgear Test Method Task Group

Negative votes and comments received on a recent committee ballot were discussed. The ballot proposed revisions to ASTM F1446 (Standard Test Methods for Equipment and Procedures Used in Evaluating Performance Characteristics of Protective Headgear).

The task group agreed to delete the retention system strength pre-load procedure. The procedure called for the placement of a 5-kg mass on the top of a helmet before performing the test. The purpose of the pre-load was to "set" the helmet comfort padding. A recent change to the standard increased the mass of the retention system test rig from 2 kg to 7 kg. The increased test rig mass is sufficient to set the helmet comfort padding without applying the 5-kg load to the top of the helmet.

There was some confusion over whether the proposed roll-off test was balloted as a new standard or as a new test method to be added to the F1446 "base standard." The group agreed that it should be added to the base standard and the subcommittee Chairman said that he would clarify this intention with ASTM staff.

Revised language to clarify the instrument system check equipment specification will be drafted and sent out on a subcommittee ballot.

Bicycle Headgear Standard Specification Task Group

The subcommittee voted to not expand the scope and title of ASTM F1447 (Standard Specification for Protective Headgear Used in Bicycling) to include recreational roller skating. Instead, the task group voted to send to subcommittee ballot a proposed new standard for headgear used in recreational roller skating that includes in-line skating within its scope. The new standard will initially be proposed with the same performance requirements as bicycle headgear.

The task group voted to send to subcommittee ballot a proposed revision to F1447 to delete the time duration requirements in the impact attenuation criteria.

Infant/Toddler Headgear

The subcommittee discussed negative votes and comments on a proposed new infant/toddler headgear standard. The group voted to make certain revisions to the proposed standard and send it out again on a concurrent subcommittee/committee ballot. Highlights of the meeting and certain action items are discussed below.

- Impact testing will include impacts on the hemispherical anvil. The previous draft excluded the hemispherical anvil.

- A working group was formed to evaluate the effects of a shifted center of gravity location on the proposed 3.2 kg ISO A drop assembly.

- The group discussed whether the impact criteria should be 300 g or 250 g. Certain members felt that reducing the mass of the impact headform assembly is an important step forward in providing more suitable head protection for a young child. However, they were concerned that reducing both the headform mass and the peak-g failure criteria was too drastic a change without more evidence to show that a reduced peak-g level was needed. The group voted to send the standard to ballot with a 300 g failure criteria.

- A break-away chin strap provision will not be included in the proposed standard at this time. Certain members argued that it is more important to take steps to ensure that a helmet will remain on the head during a bicycle accident.

- A change to the impact schedule of an infant/toddler helmet will be included on the ballot. Instead of requiring four impacts per helmet, the proposed standard will allow three or four impacts. Since impact sites must be spaced at least 120 mm apart, a test technician has more flexibility in choosing "worst case" impact sites if he is allowed to impact the helmet only three times.

Skiing Headgear Task Group

The group discussed a proposed new standard for Recreational Skiing and Snowboarding Headgear. Changes were made to the proposed standard to clarify the scope and the specification for the test line. The revised new standard will be balloted concurrently at the subcommittee and committee levels.

Other Headgear Activities

Task groups have begun developing drafts of new proposed standards for roller hockey headgear and downhill mountain bicycling headgear.

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