

**U.S. Consumer Product Safety Commission  
LOG OF MEETING**

**SUBJECT: ASTM F08.10 Bicycle Subcommittee Meeting**

**DATE OF MEETING: May 22-23, 2007**

**LOG ENTRY SOURCE: VJA**

**DATE OF LOG ENTRY: May 31, 2007**

**LOCATION: Norfolk, VA**

**CPSC ATTENDEE(S): Vincent J. Amodeo**

**NON-CPSC ATTENDEE(S):**

<b>Name</b>	<b>Company</b>
Cory Sutela	Sram
Mark Rhomberg	Sram
Wes Fleming	Pacific Cycle
Marty Wilke	Huffy
Dave Duff	Huffy
Patrick Logan	K Ridley Technology
Matthew Pfeffer	Trek
Stefan Berggren	Trek
Tom Nieri	Cannondale
David Montague	Montague
David Campbell	Cannondale
Bob Burns	Trek
Gerry Bretting	CID, Inc
John Bogler	CID, Inc
Bud Kisamore	Cannondale
Scott Dague	Cannondale
Jim Veach	Cannondale

**Sylvie Alteirac      Mavic-Salomon**  
**Thom Parks          Easton Bell**  
**Sam Pickman        Specialized**

## **SUMMARY OF MEETING:**

### **ASTM F08 (Sports Equipment) Bike Sub-Committee Meeting**

#### **Points of Order**

**Chair Dave Mitchell was not able to attend. The role of Chair was filled by Patrick Logan.**

**Secretary John Platt was not able to attend. The role of secretary was filled by Cory Sutela.**

#### **ISO/TAG update**

**Presented by Stefan Berggren**

**ISO has agreed to renew their existing standards for another 5 years. They may adopt the new CEN standards; the timing for that is 5 years out. Don Wright, the chair of ISO, has stepped down. His replacement is Allan Kator, incidentally also from the UK with experience working with Raleigh.**

#### **CEN news:**

**Standards for BMX and for bike trailers are expected in 2008. Work is being done on a standard for electric bikes.**

**Some changes to the racing bicycle standard are in review with an advisory board, including to handlebars, fork impact, and crank tests. There is some thought within the CEN group and European testers that the current tests may be too severe, a sentiment echoed by some members of this ASTM sub-committee. No changes are being contemplated for the brake standard. It was noted that the wet/dry ratio criteria can be difficult to meet for some brakes.**

**Mr. Berggren observed that new CEN standards, as well as revisions, can actually be pushed though quite quickly, on the order of 1 year, very quickly relative to ASTM F08.10 committee. The reason for this is because the CEN groups are relatively well resourced with motivated members from companies who have paid to participate in the process.**

**Wheels Group**

**Led by David Montague**

**The latest revision of the quick release-secondary retention system test standard was distributed. To summarize the main differences compared to previous proposals, the current proposal does not specify the operation of a secondary retention system; rather it simply calls out a test for its performance. Changed prohibited QRs to 20" wheeled bikes.**

**The proposed test consists of a 200N "pullout force" on the wheel, and a 100N side load applied sequentially in 2 directions at the circumference of the wheel. Since it had been observed that the geometry of fork dropouts and QRs can vary between sides, the test specifies that the side load should be applied sequentially in both directions (ie parallel to the wheel axle, in both directions). Then the wheel should be removed and rotated 180-deg about an axis perpendicular to the axle (ie, run the wheel backwards) and the test repeated. The test should be performed on a complete fork since different results were obtained when lower legs were tested on their own. Proof testing was performed by Montague and CI Dynamics.**

**The proposed wheel retention test standard was reviewed line-by-line. At the conclusion of the session Mr. Montague agreed to revise the proposal as per the suggestions of the group, and circulate the revised document to the Wheels group. It was noted that the deadline for the next ASTM ballot is July 31, 2007. It was further observed that full acceptance of this standard is not a pre-requisite for manufacturers to spec QRs for production.**

**Frames**

**Led by Patrick Logan**

**There were 2 negatives expressed on the last ballot for the frame test standard. Both were deemed persuasive.**

**The first negative referred to the allowed sequence of tests, in a case when the same frame is to be used for multiple tests. The group agreed that plastic deformation caused during an impact test can indeed affect the fatigue life during future tests, in a way that is not predictable. Therefore, an impact test will not be allowed before a fatigue test.**

**The second negative referred to the lack of a precision and bias (P&B) statement in the standard.**

**The ASTM has a service to support the generation of P&B statements, and will pay for the samples (but not the testing) required to create them. The action item here is for Patrick to contact Philip Godorov of the ASTM's Inter-Lab Study Group, [pgodorov@astm.org](mailto:pgodorov@astm.org) , for more support.**

## **Handlebars and grips**

**Led by John Bogler**

**The current revision of the grip standard was distributed.**

**Mr. Berggren noted that in Europe, in addition to restrictions on lead content for grips, they are contemplating restrictions on PAH (polycyclic aromatic hydrocarbons) content.**

**There was significant discussion about the grip geometry spec, and the distinction between a 'core sample' injury and a blunt trauma. There is an 80mm radius specification for grip ends and we wondered if this should be a minimum or if a range should be specified. Mr. Bogler will review the ski pole standard to see how the 80mm radius is applied, and circulate a proposal to the working group. He will also edit the proposed standard so that it conforms to ASTM conventions. He hopes to have something ready for subcommittee approval at the next meeting in Las Vegas in September.**

## **Composite structures**

**This group had not formally met since our last meeting so progress was limited. Gerry Bretting has been the leader of this group, and he noted that with his other commitments it has been difficult for him to make headway on this topic. For many of us in the bikes subcommittee, this topic is very important and progress is urgently needed.**

**There is agreement that some kind of 'fatigue plus impact' (or possibly 'stiffness-fatigue-stiffness-impact') test would be appropriate for composite structures. It was suggested that both a frontal and a splay impact test should be included. The plan is to focus first on fork testing, then work on frames, then other components.**

## **Forks**

**Led by Cory Sutela**

**Mr. Sutela shared Powerpoint presentation with the group**

**His suggestions for moving forward with fork tests included:**

- revision of the class III fatigue test force and cycle requirements to align with the CEN mountain bike standard.**
- Addition of several new tests to the fork standard, some following previous suggestions from Marzocchi: disc brake fatigue, splay impact, tensile and possibly a disc brake static load test.**
- Wherever possible the new tests will be aligned with CEN, considering ASTM class I to be equivalent to the CEN city/trekking class, and ASTM class II**

equivalent to the CEN racing class.

- The group agreed that the 3mm 'mud clearance' requirement in the current ASTM standard is a good idea (compared to the CEN test which does not specify this).
- Special requirements for composite forks will be added in cooperation with the composite working group.
- The group is interested in providing fork standards for tandems. Cannondale will share some field data and internal standards that they use for this application.
- The group would also like to set fork standards for BMX bikes. A sensible course of action here would be to observe the direction taken by the CEN group, and decide on an ASTM standard afterwards.
- Although the group is interested in standards for cyclocross bikes, it is not yet clear which classification is appropriate. It seems reasonable to classify them for now as either road or mountain bikes, at the manufacturers discretion.

#### Use classification

Primary group leaders Dave Mitchell and John Platt could not attend the meeting. Dave Mitchell did contribute to the meeting by phone:

Voting on the last ballot was negative but the negatives might be easily resolved. There was agreement within the group that numbers on proposed labels could be optionally included.

It was agreed that aftermarket components, in particular forks, could be labeled if a manufacturer chooses, according to the intended use and the test standards that had been used for evaluation.

Mr. Mitchell agreed to convene the group by phone or email during the next month, to assess whether a revised document could be presented for ballot before the July 31 deadline.

#### Accessories

Led by Patrick Logan

There were 2 notes for improvement to F1975, the trailer standard. 1) In the fatigue test for the coupling, the tongue height needs to be specified. 2) the group wants to rewrite the standard for the strength of the roll cage to match the CEN standard, which calls for a load of 1.5x the weight of the trailer.

There was no update about the trail-a-bike standard.

#### Full Committee meeting

**Motion by Dave Campbell, 2nd Gerry Bretting**

**To direct the wheel working group to draft a dropout dimensional standard for bicycle forks which use 'tap tips' (also called 'recesses' or 'lawyer lips') as part of a secondary retention system**

**14 ayes 1 nay 1 abstention – motion passed.**

**Mr. Logan introduced a discussion about supply chain standardization within the industry. Such an effort could reduce both the cost and the environmental impact of producing bicycles.**

**The next meeting of the subcommittee was scheduled for Wednesday September 26, the first day of the indoor show at Interbike, from 9am to 3pm. John Bogler will reserve the room for this meeting.**

**Dave Duff moved to adjourn, Stefan Berggren 2nd, motion passed.**



Consumer Product Safety Commission

4330 East West Highway  
Bethesda, Maryland 20814

### MEETING ATTENDANCE RECORD

Date: 8.9.07 Project: \_\_\_\_\_

Location: Hearing Room Purpose: ASTM Voluntary Standards

Name (PLEASE PRINT)	Organization	Phone	Fax	E-mail
WG (Bill) Hall	Vinyl Institute	512-794-8769	512-794-8769	billh@vini.com
JEFF LIPOW	PLAYAROUND TOYS	973-445-2870		jlipow@ply-clg.com
TRIGOESS	Bureau Veritas	618-918-9834		Trig.Goess@us.bureauveritas.com
Don Huber	Eventflo Corp Inc.	937-415-3188		don.huber@eventflo.com
John Blair	<del>Infotest</del>	302-995-1100		blairj@infotest.com
Kara Kane	Consumers Union	914-378-2356		kane.k@consumers.org
Don Mays	Consumers Union	914-378-2346		
Jonathan Midgett	CPSC/HF	301-504-7692		jmidgett@cpsc.gov
Rachel Newby	CFA	(202)939-1012		