LOG OF MEETING
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Meeting of ASTM Subcommittee F15.18 for Cribs

DATE OF MEETING: June 26, 1997

PLACE: Hilton Hotel,
4509 Island Avenue.
Philadelphia, PA

LOG ENTRY SOURCE: John Preston, ES

DATE OF ENTRY: July 1, 1997

COMMISSION ATTENDEES:
John Preston, ES Ronald Medford, EXHR Bob Hundemer, LSE

NON-COMMISSION ATTENDEES:
William Suvak, Child Craft
Richard Glover, Cosco
Julie Morris, Gerry Baby Products
Bob Waller, JPMA
Rick Locker, JPMA Counsel
Gaetan Phillipon, Simmons
David Campbell, Century
Sam Shamie, Delta
Monica Keeler, UL
Ron Hoffman, Graco
Bob Miller, UL
Mike Krygier, DTL
Jon Robinson, Gerry Wood Products
Kandi Mell, JPMA
Jerry Drobinski, Revmark
Jack Walsh, The Danny Foundation
Werner Frietag, Consumer
Tim Snyder, Fisher-Price
Steve Gerhart, Graco

SUMMARY OF MEETING

The purpose of the meeting was to discuss a revision to the crib side test in the ASTM F1169 standard for Full-Size Cribs. The revision is intended to insure that cribs certified as being in conformance to the F1169 standard will not be involved in crib slat disengagements during use.

At the last meeting (3/97) manufacturers were instructed to perform tests on crib side panels that were 1) production quality gluing/assembly, 2) poor quality gluing/assembly and 3) assembled with no glue or pins and send their test results to JPMA. The test procedure dropped a 25 lb weight onto the center of the lower side rail 250 times from a height of 3 inches while the crib side was supported by the ends of the upper side rail. This test was followed by a torque test in which every slat was subjected to a torque of 5 lbf⋅ft and, finally, the crib side was subjected to a static pull apart force of 100 lbf. A table was distributed that summarized the manufacturers test results. These were as follows:

<table>
<thead>
<tr>
<th>Gluing/Assembly</th>
<th>Number tested</th>
<th>Number Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Quality</td>
<td>270</td>
<td>254 P 16F</td>
</tr>
<tr>
<td>Poor Quality</td>
<td>271</td>
<td>129P 142F</td>
</tr>
<tr>
<td>No Glue or Pins</td>
<td>272</td>
<td>46P 226F</td>
</tr>
</tbody>
</table>
A manufacturer who had more information on the number of impacts that resulted in failure drew graphs on a blackboard to show the distribution of the failures. CPSC staff, noting that 53 cribs with no glue or pins to secure the slats were able to pass the test, stated that the test did not appear to be sufficiently stringent.

A table summarizing tests conducted by CPSC staff was also distributed. The CPSC tests were conducted to a similar procedure to the manufacturers' tests but the test weight was variously 25 lb, 35 lb or 50 lb and all sides tested were subjected to 2,000 drops of the test weight unless failure occurred at a lesser number of drops. The CPSC test data showed no failures with a 25 lb weight, two failures with a 35 lb weight and no failures with a 50 lb weight. Of the two failures, one involved a "production quality" crib that had been purchased new from a local juvenile products retailer and the other was a crib that had experienced slat separations during use and had been sent to CPSC by a retailer who had pressed the slats back in place by hand. This crib did not experience slat separation when impacted by a 25 lb weight 250 times but failed after 38 drops of a 35 lb weight.

Videos were shown of crib sides being tested in the fixtures used by CPSC, an independent testing laboratory and a manufacturer. In each video, the same brand of crib side was being tested. It was noted that the crib side appeared to behave differently in each of the three fixtures. It was reported that the number of failures of this crib side when tested in each of the three fixtures was also quite different.

Discussion turned to the design of the test fixtures being used for crib side testing. It was agreed that there should be more detail given in the F1169 standard on the key elements of the test fixture in order to obtain lab-to-lab reproducibility. It was also agreed that the rubber pad which cushions the falling weight should be specified as a sole source. CPSC staff requested drawings or photographs of a test fixture being used by a manufacturer that has a latch mechanism to release the weight. CPSC staff stated that upon completion of a new test fixture (approximately 6 weeks) it would welcome a meeting at the Engineering Laboratory to enable others to observe this test fixture. No specific date was established for such a meeting.

The subcommittee may perform round robin testing to determine the repeatability of the crib side test procedure.

DISTRIBUTION

OS(2), ES, EXHR, File