

## LOG OF MEETING

**SUBJECT:** Trampolines - ASTM F08-17 Task Group Meetings

**DATE OF MEETING:** September 13-14, 2000

**DATE OF LOG ENTRY:** September 25, 2000

**PERSON SUBMITTING LOG:** George F. Sushinsky

**LOCATION:** ICON Health and Fitness  
4010 Distribution Drive  
Garland, Texas

**CPSC ATTENDEE(S):** George F. Sushinsky (LSM) *JS*

**NON-CPSC ATTENDEE(S):** See attached lists  
(Attachments A and B)

### SUMMARY OF MEETING:

#### A. Padding attachment task group:

The meeting started at 9:00 AM. The meeting of the task group was called to discuss the pad attachment tests for inclusion in the existing ASTM standard for trampolines (ASTM F0381). The standard requires that the pad be securely attached to the frame without specifying how the integrity of the padding attachment will be tested. Prior meetings were held in April and May to discuss proposed test procedures submitted by CPSC staff. This meeting was intended to continue discussion of those proposals and discuss results of tests to the proposals conducted by several manufacturers and to demonstrate those and other tests on trampoline products. In addition, an alternative test procedure, proposed by Pat Welsh, Hedstrom Corp., was submitted to task group members prior to the meeting for consideration.

Mr. Welsh, the task group chairman, opened the meeting with introduction of the attendees. After a brief summary of the previous meetings, he introduced his proposal for a drop weight test procedure and for weathering degradation of pad materials. (See Attachment C.) He also handed out a response to that proposal submitted by George Sushinsky of CPSC. (See Attachment D.) Bud Nichols, Jumpking, noted that the tests proposed at the April meeting had not been done, but offered that Cliff Bigelow of Materials Analysis would be available to demonstrate some of the proposed tests later in the meeting. Phillip Aja, A.J. Landmark, questioned the purpose of the test. He asked about what is the pad expected to do in use - stay on the trampoline, withstand the environment, withstand use-and-abuse, and withstand accidental contacts? He expressed particular concern about exposure of springs and hardware when the pad was subjected to side loads as users impact the pads at an angle during use. Lani Lokendahle, ITIA, noted that pads also see side loads from users grabbing onto them to climb on the trampoline.

CPSC/OFC OF THE SECRETARY  
FEDERAL COMMUNICATIONS COMMISSION

2000 OCT -3 P 2:39

CPSC 6 (b)(1) Cleared

No Mfrs/Prv/Blrs of  
Products Identified

Excepted by \_\_\_\_\_

Firms Notified, \_\_\_\_\_

Comments Processed.

George Sushinsky, when asked to comment on the testing issues, expressed disappointment at what he was hearing. The discussion, up to that point, had not progressed beyond what had occurred in April and May. There was no tests performed to assess the merits of the test proposals discussed at length during the prior meetings. With regard to the drop test procedure introduced by Pat Welsh, Mr. Sushinsky reiterated his comments made in response to the proposal that the severity of the tests and their ability to determine the security of the pad attachment. Mr. Aja expressed that the proposed drop test does not impose side loads. He felt that most current pad designs could not handle side loads without exposing springs or hardware.

Mr. Sushinsky offered his view of three important pad characteristics. The pad should stay securely attached, cover the frame, springs and hardware while in use, and be durable enough to provide a reasonable amount of service. He suggested that the tests proposed in April were aimed at these characteristics. Mr. Sushinsky envisioned pad coverage of the frame and hardware during use that may require extension of the pad onto the trampoline bed surface. The durability issue was addressed by UV tests to 120 hours and fatigue tests in the April proposals. Discussion of the pad on the bed and UV exposure limits followed without resolution. Noise was cited as a detriment to having the pad on the bed in competition trampolines. To address the side load issue, a stiffer pad was suggested as a potential solution. With regard to durability, one manufacturer noted that they offered a one-year replacement warranty - with the expectation that the pad would last a minimum of 18 months in many environments. Mr. Aja noted that his pads carried a 5-year warranty.

Bud Nichols confirmed his previous comments that a major problem to pad durability is the repetitive loading that the padding attachment sees. He discussed how Jump King has tried to address the repetitive force issue through the use of elastic components in their padding attachment system. Having identified this as a principle component of pad attachment failure, he suggested that we continue to develop the fatigue area of the test procedure. He also endorsed the drop test using a foot-shaped profile as embodied in the test procedure submitted by Pat Welsh.

After a short break, Cliff Bigelow joined the meeting and explained the process he uses to develop tests in general and for trampoline pads in particular. The procedure that he was prepared to demonstrate, namely the drop weight procedure was intended to measure if the pad would keep the user from contacting the pad and that the pad will remain on the trampoline.

After lunch there was a demonstration the drop weight test on several pad sections. In one test of a complete pad installed on the trampoline, the weight dropped through the springs pushing the pad with it and exposing the frame and springs. When the weight was removed, the pad did not return to a position covering the frame or springs. This pad appeared to be similar to pads on trampolines from four manufacturers that were set up for future test demonstrations of enclosure systems. Sections of padding material were tested next. A stiff, thick molded pad without a cover was set on the frame/springs of an assembled trampoline and the weight was dropped on it. The weight punched through the padding leaving a hole the approximate size and shape of the impact foot. This pad would have probably survived an

impact if it had a covering typical of that on padding. From this test, it was decided that there could be no hard corners on the leading surface of the impactor. A few more tests were run on random sections of pad without similarly catastrophic results.

After the test demonstration, the meeting resumed to discuss the next task group action. The task group agreed to amend the drop test procedure by changing the shape specifications of the impact surface. The changes included a 3/8-inch radius on the edge and semi-circular ends to eliminate edge effects. The procedure was to run at three locations as indicated in Attachment B but specifically between a pair of springs. The number of drops was reduced from two to one. Pat Welsh was to provide the redrafted proposal to John Kuchno, subcommittee chairman, for putting into the appropriate language and to circulate it to the subcommittee members prior to the November meeting. Mr. Welsh's proposal was to include the UV degradation test in Attachment B. George Sushinsky said that he would also submit his proposals that are not covered by the drop test. George Sushinsky and Gordon Thompson, Sentinel Polyolefins are also attempting to specify foam properties for the padding to address the shock attenuation characteristics.

The next meeting of the pad attachment task group is scheduled for November 14 in Orlando at the Rosen Center. The subcommittee will meet the following day.

The meeting adjourned at about 5:15 PM.

B. Trampoline enclosure task group

The meeting started at 9:00 AM with introductions. (See Attachment B.) Bud Nichols passed out a copy of the latest draft of the enclosure standard. (See Attachment E.) Most attendees had not seen a copy of this draft before they were handed out. The task group members reviewed the draft on a section by section basis. In Section 3 - Terminology and Section 4 - Components, changes were made to generalize the language to include concepts that may be used in future products. Therefore, 'netting' became 'barrier' and 'frame' became 'support system'. Other restrictive terms were likewise deleted or changed.

A comment by George Sushinsky prompted a discussion of the need to include accessories as an item in this document. One manufacturer opined that some accessories may be counter to safe trampoline use and may encourage misuse. A second manufacturer noted that accessories were designed to counter known misuse and to encourage single use in his products. It was suggested that general provisions such as those for sharp points and edges, etc cover accessories. This was left as an open topic for further discussion.

Section 5.1 generated a lot of discussion with regard to the height of the enclosure. It was concluded that a 5-foot high enclosure was sufficient for 8 and 12-foot diameter trampolines and that 6-foot high enclosures were suitable for larger diameter beds. Also, in anticipation of rectangular bed trampolines increasing in popularity, the language was to change to base the enclosure height on the perimeter of the trampoline bed. Section 5.5 concerns the size of the mesh used in the enclosure. The current version calls for a mesh size maximum of 3/8 by 3/8 inches. Some manufacturers offer enclosures with more open (bigger) mesh sizes to allow an off balance person the ability to grab the side of the enclosure to regain balance.

The next section (6.1 of Performance Requirements) was covered by demonstrating the test concept on trampoline/enclosure setups from four manufacturers. In the tests, a 150 mass in a body punching bag was swung in about a 45-degree arc into the enclosure. Tests were demonstrated in the middle of the enclosure panels and directly on a support structure. During one test, an elastic cord attaching the enclosure material to the support structure failed. The enclosure remained in place. In a second test, a 150-pound mass raised on a pivot arm was released to impact the lower quarter of the enclosure in the center of a panel. The mass swung through an arc with a radius of approximately 3 feet and was positioned to allow it to stretch the enclosure beyond the outer edge of the trampoline frame. The mass was prevented from falling below the level of the trampoline bed by a wooden platform positioned at the trampolines edge to stop the mass's descent.

There are several details that need to be worked out for this to be a repeatable test procedure. The test demonstrations concluded and the meeting adjourned at 4:30 PM.

In an E-mail to George Sushinsky on 09/19, Steve Moulton reported on further abuse testing that he had conducted the next morning. It was his opinion that more rigorous testing of the unit was needed.

Attachment A



Sheraton Centre  
Toronto  
HOTEL

PAT WELSH	HEDSTROM	814-623-9041 FAX 814-623-2651
Randy Dehaas	Seaholm Corp.	972-647-1040 1-800-722-5007
Denis Taryin	Sentinel Polyolefins	508-775-8009
Gordon Thompson	Sentinel Polyolefins	972-931-8020
Phillip AOA	AJ Landmark	208-322-4456
BLAKE SMITH	Jump King	972 271 5867
GEORGE SUSHINSKI	CPSC	301-413-0172
JOHN KUCHARO	ASTM F08.17	410-750-7821
BUD NICHOLS	JUMP KING	800-527 5417
Laxi Lokendakhe	Antitrust Top Safety Ass.	541. 984-0332
Laurel Jensen	ICON	435-750-5000 ext 5318
CLIFF BIGELOW	Materials Analysis Inc.	214-343-3811

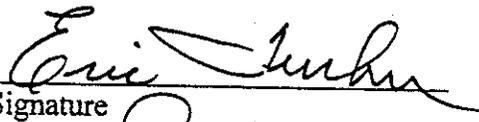
TRAMPOLINE PAD TASK GROUP  
GARLAND, TX SEP 13, 2000

MEETING ATTENDANCE LIST  
TRAMPOLINE ENCLOSURE TASK GROUP  
September 14, 2000

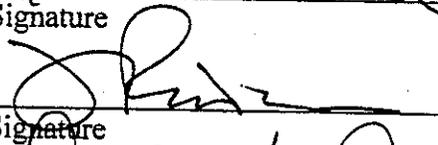
Bud Nichols - Chairman

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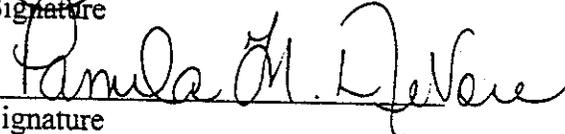
ERIC TUCKER  
Name

  
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JERRY REEVES  
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Pamela M. DeVore  
Name

  
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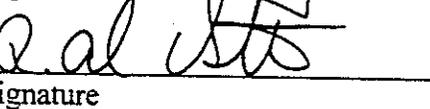
Todd Murdock  
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Paul Huang  
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Alan Sutton  
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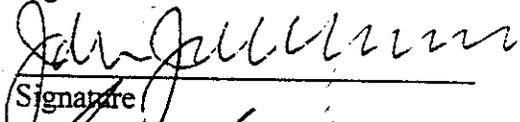
KEVIN JUNG  
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Ron Syfacunda  
Name

  
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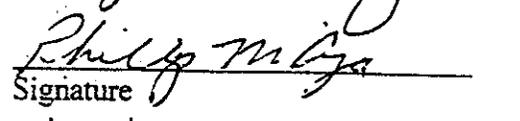
JOHN KUCHARO  
Name

  
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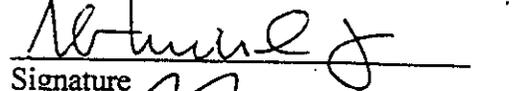
GEORGE SUSHINSKY  
Name

  
Signature

Phillip Ajs  
Name

  
Signature

A.G. (Bud) NICHOLS  
Name

  
Signature

Steve Moulton

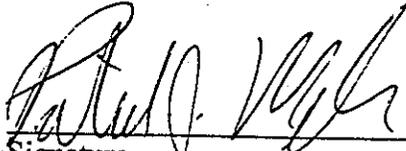
  
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MEETING ATTENDANCE LIST  
TRAMPOLINE ENCLOSURE TASK GROUP  
September 14, 2000

Bud Nichols - Chairman

Please print name and sign.

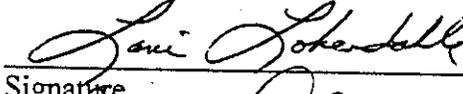
PAT WELSH  
Name

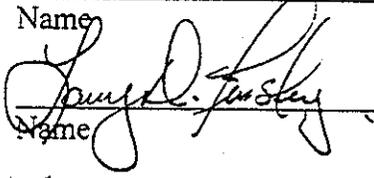
  
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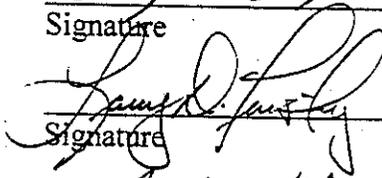
Laurel Jensen  
Name

  
Signature

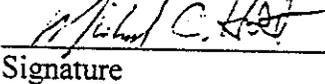
Lani Lokardalle  
Name

  
Signature

  
Name

  
Signature

MICHAEL C. HART  
Name

  
Signature

Name

Signature

*A Mechanical C*

Hedstrom Corporation  
Bedford, PA 15522

(814) 623-9041

Dear Task Group Member,

Please find the following proposal submitted for your review. The Trampoline Pad Task Group will discuss this proposal at the next task group meeting scheduled for Sept. 13 in Dallas.

Basically, the drop test methods listed below were developed by the CPSC and Jumpking. Hedstrom uses a slightly modified test procedure, which I have included. I have also included a requirement for UV protection.

Hedstrom has utilized these test methods for evaluating new designs as well as current products and we feel they are accurate, reliable and closely simulate actual use conditions.

I urge the group to come to the meeting prepared to discuss this proposal as well as any other suggestions/ideas you may have. We urgently need to complete the work of this task group by developing and agreeing upon a proposal and submitting it to the subcommittee for vote in November. We should leave the meeting in Dallas with a proposal in hand.

#### Drop Weight Test

A drop weight test will be performed on frame padding attached to a trampoline and assembled in accordance with the manufacturer's instructions.

The drop weight will consist of a 50 lb. mass with a wooden impacting surface measuring 3.5" x 6". The impactor can be fabricated from a 2x4 or 4x4 with the 50 lb. weight fastened to the top of the foot. The impacting surface of the foot should be chamfered to eliminate sharp edges.

The impactor shall be attached to a hoist, crane or other method needed to raise the impactor above the surface of the trampoline. An appropriate quick release system shall be incorporated to allow the impactor to free fall when released. The quick release system shall not significantly restrict or reduce the speed of the impactor during free fall. A pulley and rope or cable system shall be considered acceptable.

The impactor shall be dropped on the portion of the frame padding covering the springs. The impactor shall be centered at a location half way between two springs and half way between the edge of the bed and frame rail. The impactor shall be raised to a height of 12" above the frame padding and shall be dropped two times at each of the following locations. 1) half-way between two pad attachment points 2) immediately adjacent to a pad attachment point 3) directly onto a pad seam.

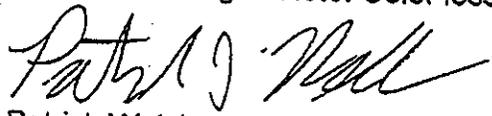
The frame pad fails if any of the following conditions occur: 1. the impactor penetrates completely through the frame pad 2) the seams separate 3) the pad attachments separate from the pad or top rail 4) the frame rail becomes exposed.

#### Outdoor weather testing

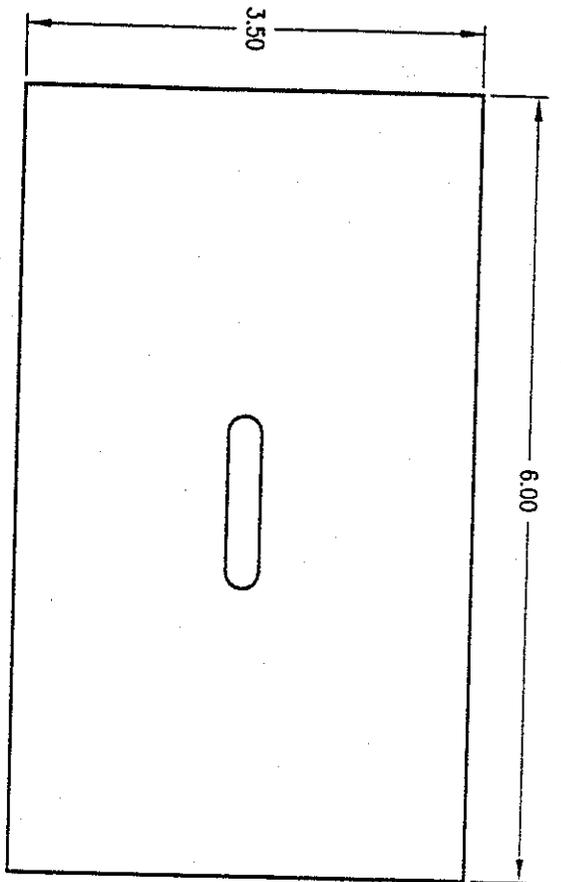
Any component of the frame pad exposed to weather shall be tested in accordance with the following procedure. Samples shall include, but not be limited to: pad cover, pad attachments, thread.

A sample shall be taken from the frame pad and placed into a suitable weather testing apparatus such as a QUV chamber or xenon arc chamber.

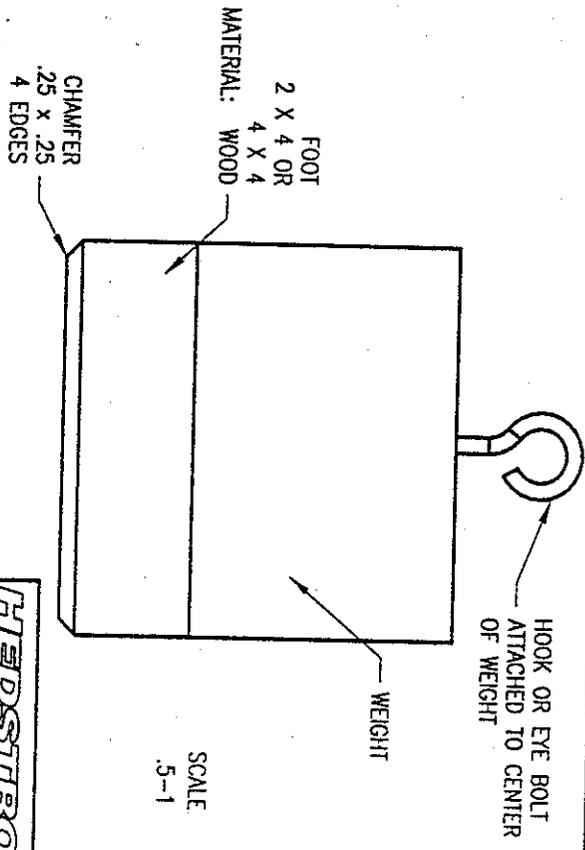
Samples shall be placed in the weathering chamber for a minimum of 120 hours. Samples shall be evaluated after exposure and shall meet the following requirements. 1) retain a minimum of 80% tensile strength 2) show no signs of embrittlement or loss of structural strength. Note: Color loss is not to be considered part of the evaluation.



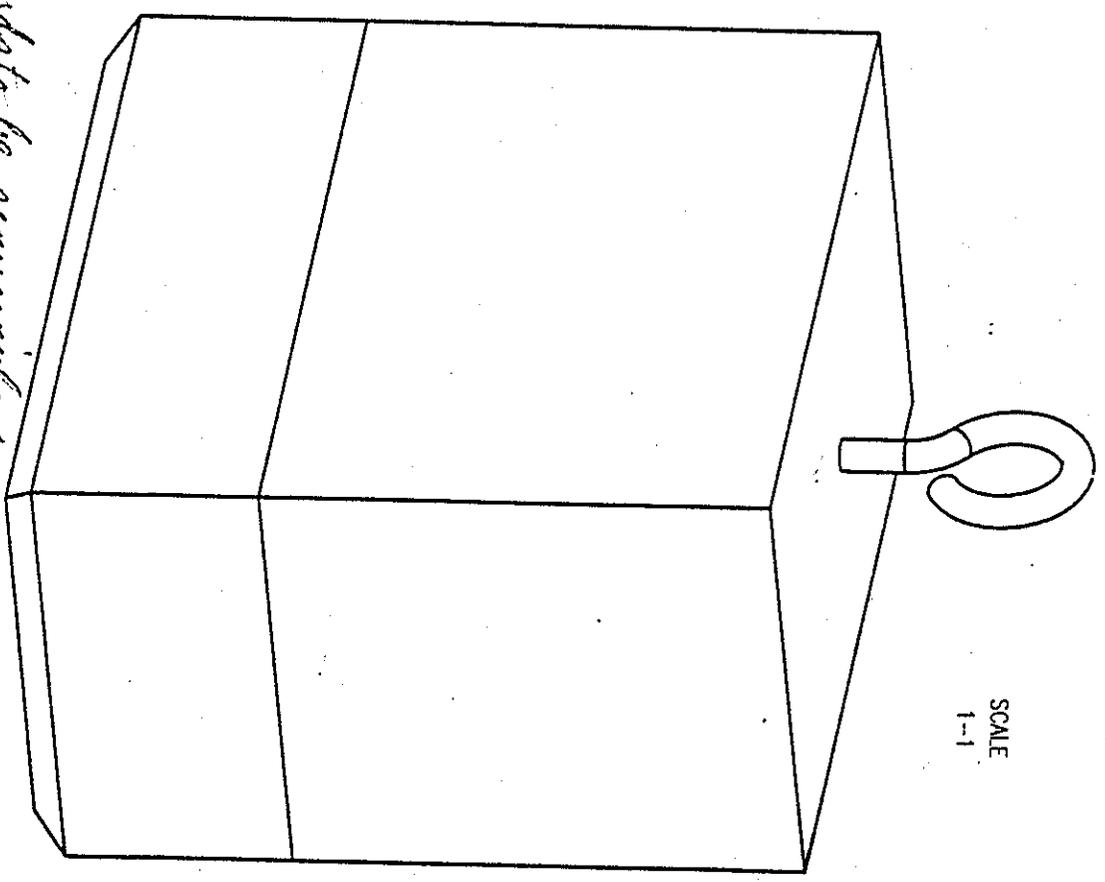
Patrick Welsh  
Hedstrom Corporation



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**HEDSTROM**  
corporation

P.O. BOX 432 BERGTON, PA 15322  
PHONE: (814) 623-9041 FAX: (814) 623-2651

DESCRIPTION: IMPACTOR 50 LBS MATERIAL: SEE NOTE	TOLERANCES UNLESS NOTED 2 P.L.C. ± .06 3 P.L.C. ± FRACTION ± ANGULAR ±	DR. BY ALL DATE 9-5-00	CHK. BY P.W. DATE	REL. BY DATE	REVISION LEVEL REPLACES	FILE # VOIC01 PART #
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*update to accommodate  
1/4 diameter rollers*

DO NOT SCALE DRAWINGS  
USE DIMENSIONS ONLY

SCALE  
SEE NOTE

DWG #  
IMPACT-01

REV.	DESCRIPTION	P.C. /	DATE	BY	CHK
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To: Pat Welsh  
(814) 623-2651

From: George Sushinsky  
(301) 413-0172  
(301) 413-7107

Subject: Padding Test Procedures

Following are some initial comments on the draft procedure that you sent to the task group members. While it may be accurate to attribute development of the procedure to CPSC and Jumpking, the drop test procedure does not yet have the support of CPSC staff as a reasonable discriminator of padding retention and durability. Coverage, pad retention, and durability are the primary issues that need to be addressed.

Some areas of concern are the mass of the drop weight and the number of drops. The mass of the drop weight is far below the mass of the maximum user that may be walking or sitting or jumping on the padding. The 50-foot-pound impact applied twice does not seem to be a rigorous test that would allow determination of the secure attachment of the pad.

At the May meeting, Bud Nichols expressed that fatigue of padding components was a major problem that they addressed with elastic components. The distinction needs to be made between an impact test and a fatigue test. Impact tests need to be severe to allow judgement of the behavior of materials and systems to occasional overloads. Fatigue measures longer term issues of durability to moderate loadings typical of those seen in use.

The tests I proposed in April (that were not dismissed at the time) have some of those elements. I hope that they are still on the table for discussion. I look forward to the data from the labs that were running the tests and the resulting discussions that can lead to appropriate test procedures.

I look forward to the meetings next week.

Standard Safety Specification for  
Consumer Trampoline Enclosures

1. Scope

- 1.1 This safety specification covers the components, assembly, use, labeling and performance requirements of consumer trampoline enclosures.
- 1.2 This specification is applicable to trampoline enclosures to be sold as an accessory to or packaged with trampolines of 1) a minimum bed size of 3300 in 2 , (2) a minimum height of 20 in. (51 cm), (3) intended for the purpose of continuous, vertical jumping activities and (4) intended for consumer use.
- 1.3 This specification includes the following sections and selected subsections:
  - Scope
  - Referenced Documents
  - Terminology
  - Components
  - Materials and Manufacture
  - Performance Requirements
  - Information Packet
  - Product Marking
  - Packaging and Package Marking
- 1.4 This standard does not purport to address all of the hazards which may be associated with trampolines and/or trampoline enclosures. The standard's existence alone will not necessarily prevent injuries. Like other physical activities, trampoline use involves the risk of injury, particularly if the equipment is used improperly. Similarly, the use of a trampoline enclosure alone will not necessarily prevent all injuries.

2. Referenced Documents

- 2.1 ASTM Standards:
  - F1148-98c Standard Consumer Safety Performance Specification for Home Playground Equipment
  - F1918-98 Standard Safety Performance for Soft Contained Play Equipment
  - F381-99 Standard Safety Specification for Components, Assembly, Use, and Labeling of Consumer Trampolines
  - F1077 Guide for the Selection of Committee F-16 Fastener Specifications
- 2.2 <sup>F1749-96</sup> ANSI Standard: ~~Fitness Equipment~~  
Z535.4 Product Safety Signs and Labels

2.3 Federal Standard:  
16 CFR 1500

Hazardous Substances Act Regulations, including Sections:  
1500.48—Technical Requirements for determining a Sharp Point in Toys and other Articles Intended for Use by Children Under 8 Years of Age;  
1500.49—Technical Requirements for Determining a Sharp Metal or Glass Edge in Toys and Other Articles Intended for Use by Children Under 8 Years of Age.

3. Terminology

3.1 Definition of Terms Specific to This Standard:

3.1.1 Attachment system, n – the complete manner in which certain components are connected.

3.1.2 Enclosure, n – equipment which ~~restricts~~ <sup>reduces the risk of</sup> the user ~~from~~ falling off the trampoline.

3.1.3 Enclosure frame attachment system, n - the framework constructed of ~~rigid~~ supportive materials from which the enclosure netting is suspended and/or attached.

*Barrier*  
3.1.4 ~~Netting~~, n – an open weave fabric made of threads and/or monofilament fiber woven, knotted or fused together at regular intervals. <sup>system</sup>

*Barrier*  
3.1.5 ~~Netting system~~, n - an open weave fabric made of threads and/or monofilament fiber woven, knotted or fused together at regular intervals forming the enclosure suspended from and/or attached to enclosure frame. <sup>from 1148</sup>

3.1.6 Upright pole caps, n – covering cap on exposed enclosure frame pole ends to prevent cuts, abrasion or impalement.

4. Components

4.1 A trampoline enclosure system when offered for sale shall include the following components:

4.1.1 Enclosure ~~frame~~ <sup>support system</sup>

4.1.2 Enclosure ~~frame~~ padding and upright pole caps

4.1.3 Enclosure ~~frame~~ attachment system ~~hardware~~

4.1.4 Enclosure ~~netting~~ <sup>barrier</sup>

4.1.5 Enclosure ~~netting~~ <sup>barrier</sup> attachment system

4.1.6 Information packet/user manual

4.1.7 Suitable on-product and on-package warning

5. Materials and Manufacture

5.1 The enclosure frame shall consist of ~~rigid~~ upright supports extending to a height above the bed at least one-half the diameter of the bed with a minimum height of five feet. The enclosure frame material shall be of <sup>or minimum bed dimensions</sup>

sufficient strength and rigidity to hold the enclosure netting in place and withstand the loads outlined in Performance Requirement Test #1.

5.2 Frame attachment system and hardware shall be subject to ready assembly by the original retail consumer and shall meet the requirements set forth in 6.1 (Performance Requirement Test #1).

5.3.1 All fasteners shall be manufactured in accordance with Guide F 1077.

5.3.2 All fasteners, connecting, and covering devices shall be inherently corrosion resistant or be provided with corrosion resistant coating.

5.3.3 When installed in accordance with the manufacturer's instructions, ~~fasteners, connecting, and covering devices shall not loosen or be removable without the use of tools.~~ Lock washers, self-locking nuts, or other locking means shall be provided for all nuts and bolts to protect them from unintentional loosening. Hardware in moving joints shall also be secured against unintentional loosening.

5.3.4 There shall be no accessible sharp points or edges on fasteners. A cut-off bolt end projecting beyond the face of the nut shall be free of burrs, sharp points, and sharp edges. An accessible bolt end shall not extend more than two full threads beyond the face of a nut.

5.4 Connecting devices such as but not limited to, S-hooks, pelican hooks, and C-hooks shall be properly closed. These connectors are considered closed when there is no gap or space greater than 0.004 in. (1 mm) when measured with a feeler gage.

5.4.1. S-hook connectors are subject to the following additional requirements:

(1) No portion of the closed end of an S-hook upper loop may project beyond the vertical boundary established by the upper loop; (2) an S-hook upper loop may align with, may partially overlap, or may completely overlap the connector body. If the upper loop completely overlaps the connector body, it must not extend past the connector body, or (3) an S-hook lower loop must align with the connector body and not overlap in any way. [NOTE—POTENTIAL DIAGRAMS TO BE REFERENCED—SEE F1918]

5.5 The enclosure netting shall be a durable weather resistant fabric suitable for extended outdoor life with mesh openings no larger than 3/8" x 3/8".

5.6 Frame members exposed to contact during foreseeable usage shall be padded. Ends of such frame members shall be capped.

5.7 The enclosure netting attachment system shall include 1) upper attachment to upright frame supports and 2) lower attachment to trampoline bed or frame top rails. Both attachment systems shall be of sufficient strength and durability to withstand tearing, deformation or failure as a result of the loads outlined in Section 6.1 (Performance Requirement Test #1). If the lower attachment system secures the base of the enclosure to the outside diameter of the bed, thereby eliminating potential user contact with the springs and frame, a trampoline frame pad shall not be required.

6. Performance Requirements

*no attachment provisions from 1148*

*no requirements on padding*

*- need ingress/egress material over pad*

- 6.1 Performance Requirement Test #1 requires four repetitions of the maximum specified user weight limit applied as a dynamic side load without failure or permanent deformation of the enclosure frame or the frame attachment hardware. The enclosure netting and netting attachment system should meet Performance Requirement Test #1 without significant deformation, tearing or failure.
- 6.2 Performance Requirement Test #2 requires that following assembly of the unit in accordance with the instructions to be provided to the consumer, there shall be no sharp edges, points, or surfaces on any portion of the trampoline enclosure capable of inflicting a cut on a child during normal use or reasonably foreseeable abuse. All points and edges on the trampoline enclosure shall be tested for sharpness in accordance with the federal technical requirements in 16 CFR 1500 referenced in Section 2.3.
- 6.3 Performance Requirement Test #3 requires that there shall be no pinch, crush, or shear points caused by junctures of two components moving relative to one another, or at an opening present in the enclosure frame attachment system or the enclosure netting attachment system while the enclosure system is in normal use. Pinch, crush, or shear points shall be deemed to be any point that entraps at one or more positions a 0.625 inch (16 mm) diameter rod.

## 7. Information Packet

- 7.1 Packet Marking and Contents:
  - 7.1.1 Each trampoline enclosure shall be accompanied by a separate packet of materials, with the following notice:

Assembly, Installation, Care, Maintenance, and Use Instructions

### WARNING

Read these materials prior to assembling and using this Trampoline Enclosure

- 7.1.1.1 This notice shall, without font or layout being implied, be well highlighted, and in enlarged boldface type in contrast to other text.
  - 7.1.2 The packet shall contain: (1) assembly instructions, (2) care and maintenance instructions, (3) warning information, and (4) use instructions.
- 7.2 Assembly and Installation Instructions:
  - 7.2.1 The manufacturer's assembly instructions for the trampoline enclosure shall be clearly written and presented such that the trampoline enclosure can be properly and safely assembled.

- 7.2.2 Any specific use limitations placed on the trampoline enclosure by the manufacturer shall be included in a statement appearing in a box at the bottom of the first page after the following notice:

**WARNING**

- 7.2.3 Trampoline enclosure installation instructions shall be supplied by the manufacturer to aid the purchaser in proper installation and placement of the trampoline enclosure. The installation instructions shall include the following information:
- 7.2.3.1 Adequate overhead clearance is essential. A minimum of 24 ft. from ground level is recommended. Provide clearance for wires, tree limbs, and other possible hazards.
  - 7.2.3.2 Lateral clearance is essential. Place the trampoline and trampoline enclosure away from walls, structures, fences, and other play areas. Maintain a clear space on all sides of the trampoline and trampoline enclosure.
  - 7.2.3.3 Place the trampoline and trampoline enclosure on a level surface before use.
  - 7.2.3.4 Use the trampoline and trampoline enclosure in a well-lighted area. Artificial illumination may be required for indoor or shady areas.
  - 7.2.3.5 Secure the trampoline and trampoline enclosure against unauthorized and unsupervised use.
  - 7.2.3.6 Remove any obstructions from beneath the trampoline and trampoline enclosure.
  - 7.2.3.7 The trampoline enclosure is only to be used as an enclosure for a trampoline and the trampoline must be of the appropriate size as covered by the specific enclosure.

7.3 Care and Maintenance Instructions:

- 7.3.1 Trampoline enclosure and maintenance instructions shall be supplied by the manufacturer to aid the purchaser in the basic and proper care and maintenance of the trampoline enclosure.
- 7.3.2 The manufacturer's care and maintenance instructions for the trampoline enclosure shall contain the following information:
  - 7.3.2.1 Inspect the trampoline enclosure before each use and replace any worn, defective, or missing parts. The following conditions could represent potential hazards:
    - 7.3.2.1.1 Missing, improperly positioned, or insecurely attached netting or enclosure frame padding.
    - 7.3.2.1.2 Punctures, frays, tears, or holes worn in the netting or frame padding.
    - 7.3.2.1.3 Deterioration in the stitching or fabric of the netting or frame padding.
    - 7.3.2.1.4 Bent or broken frame.

7.3.2.1.5 Sagging netting.

7.3.2.1.6 Sharp protrusions on the frame or suspension system. =

7.4 Warning Information:

7.4.1 All warnings in the information packet shall: (1) be readily visible, (2) alert the reader to the potential hazard in time to take the appropriate action, and (3) have good pictorial word and message legibility.

Note 1 – The user of this safety specification is referred to ANSI Z535.4 for guidelines on warning labels.

7.4.2 The information packet shall contain the following warning information:

WARNING

7.4.2.1 DO NOT attempt or allow somersaults on the trampoline. Landing on the head or neck can cause serious injury, paralysis, or death, even when landing in the middle of the bed.

7.4.2.2 Do not allow more than one person inside the trampoline enclosure. Use by more than one person at the same time can result in serious injury.

7.4.2.3 Use trampoline enclosure only with mature, knowledgeable supervision.

7.5 Use Instructions:

7.5.1 The use instructions shall include the following information:

WARNING

7.5.1.1 DO NOT attempt or allow somersaults on the trampoline. Landing on the head or neck can cause serious injury, paralysis, or death, even when landing in the middle of the bed.

7.5.1.2 Do not allow more than one person inside the trampoline enclosure. Use by more than one person at the same time can result in serious injuries.

7.5.1.3 Use trampoline enclosure only with mature, knowledgeable supervision.

7.5.1.4 Inspect the trampoline enclosure before each use. Make sure the netting and the enclosure frame padding is correctly and securely positioned. Replace any worn, defective, or missing parts.

7.5.1.5 Do not attempt to jump over the netting.

7.5.1.6 Do not attempt to crawl under the netting.

7.5.1.7 Do not intentionally rebound off the netting.

7.5.1.8 Do not hang from, kick, cut or climb on the netting.

7.5.1.9 Wear clothing free of drawstrings, hooks, loops or anything that could get caught in the netting.

7.5.1.10 Do not attach anything to the netting that is not a manufacturer-approved accessory or part of the enclosure system.

7.5.1.11 Enter and exit the enclosure only at the enclosure door or netting opening designated for that purpose.

7.5.2 Read all instructions before using the trampoline enclosure. Warnings and instructions for the care, maintenance, and use of this trampoline enclosure are included to promote safe, enjoyable use of this equipment.

## 8. Product Marking

### 8.1 Identification

8.1.1 The trampoline enclosure shall be marked clearly with at least one label to indicate the name and place of business of either the manufacturer, importer, distributor, or seller, and to indicate the model number, stock number, catalog number, item number, or any other symbols relating to the item.

8.1.2 The identification shall be reasonably durable and permanent with good work and message legibility, and take into consideration the expected life of the component and the foreseeable environment of use.

### 8.2 On-Enclosure Warnings:

8.2.1 All on-enclosure warnings shall (1) be placed such that they will be readily visible to the intended viewer, (2) alert the viewer to the potential hazard in time to take the appropriate action, (3) be reasonably durable and permanent with good color stability, pictorial legibility and word and message legibility, and (4) take into consideration the expected life of the component and the foreseeable environment of use (see Note 1).

8.2.2 The on-enclosure warnings shall include but not be limited to the following information:

#### WARNING

8.2.2.1 Do not land on head or neck.

Paralysis or death can result, even if you land in the middle of the trampoline mat (bed).

Do not do somersaults (flips).

8.2.2.2 Only one person at a time in the trampoline enclosure.

Multiple jumpers increase the chances of loss of control and this can result in broken head, neck, back or leg.

8.2.2.3 Enforce all safety rules and be familiar with the information in the User's Manual to help users in following trampoline enclosure instructions and trampoline safety.

8.2.2.4 All trampoline users must have someone watch

them, regardless of the skill or age of the jumper. Secure the trampoline against unauthorized and unsupervised use. Keep objects away that could interfere with the jumper.

- 8.2.2.5 This trampoline enclosure system is not recommended for use by children under 6 years of age and any one weighing more than 200 pounds.
- 8.2.2.6 Use only when the trampoline mat (bed) is clean and dry. Inspect the trampoline and trampoline enclosure prior to each use and replace any worn or damaged parts.
- 8.2.2.7 Use only when the enclosure netting has no holes, pole clamps are tightly secured to the poles and the frame, and the netting is properly suspended.
- 8.2.2.8 Do not use the trampoline enclosure system when under the influence of drugs or alcohol.
- 8.2.2.9 Avoid jumping too high or for too long. Always control your jump. Do not try to jump over the netting.
- 8.2.2.10 Take turns jumping one at a time.
- 8.2.2.11 Do not intentionally rebound off the netting. Do not hang from, kick, cut or climb on the netting.
- 8.2.2.12 Wear clothing free of drawstrings, hooks, loops, or anything that could get caught in the netting.
- 8.2.2.13 Do not attach anything to the netting that is not a manufacturer approved accessory or part of the enclosure system.
- 8.2.2.14 Climb on and off the trampoline at the enclosure door or netting opening. Do not jump on or off. Do not crawl under the netting. Do not use the trampoline as a springboard to other objects.
- 8.2.2.15 Do not jump from other objects, buildings, or surfaces, on to the trampoline, or into or over the trampoline enclosure.

### 8.3 Instruction Placard:

- 8.3.1 The on product warnings may be attached to the enclosure in the form of a sign or placard which the manufacturer shall supply along with the means of attachment.
- 8.3.2 The sign shall (1) be placed such that it will be readily visible to the intended viewer (2) be reasonably durable and permanent with good color stability and word and message legibility and (3) take into consideration the expected life of the enclosure and the foreseeable environment of use.
- 8.3.3 The content of the sign will be governed by and be consistent with 8.2 above.

## 9. Packaging and Package Marking

- 9.1 Packaging on principal display panels, point-of-purchase displays, and promotional literature shall be clearly marked with the following

information: This enclosure is to be used only in connection with certain trampolines. Read and follow all warnings and instructions.