



July 3, 2008

Consumer Product Safety Commission (CPSC)
Hugh McLaurin, Associate Executive Director
Directorate for Engineering Sciences
4330 East West Highway
Bethesda, MD 20814

Dear Mr. McLaurin –

Since the 1980's, national organizations such as the CPSC, the National Program for Playground Safety (NPPS), the International Play Equipment Manufacturers Association (IPEMA), the National Parks and Recreation Association (NRPA) and its National Playground Safety Institute (NPSI) as well as others, such as the National Playground Contractors Association (NPCA), have worked closely together to develop, create, and collect the needed information, materials, equipment and testing to provide and construct play areas that are not only good for kids, but safe.

The CPSC Publication #325 is a vital document that helps bridge the gap between engineered industrial standards (ASTM F1487) and the general public by using language that the public can understand and embrace. It is a document that has become a standard at the national, state and local level given it is routinely used as the foundation of many state's legislation on public playgrounds. Because of its importance and role, it is critical from our perspective that it be consistent with the information in the ASTM F1487 Standard. There is no question that both documents serve an important purpose and both are needed. That being said, conflicting data and messages are causing problems for not only the industry but for everyday consumers trying to do the right thing when building and maintaining their play areas.

As you may know, the playground industry follows ASTM Standards when developing and testing equipment and surfacing materials for safety. These Standards address safety and proper equipment design based upon in-depth testing as well as industry-wide agreement on the Standards. ASTM utilizes experienced professionals to develop a consensus based process. The ability to stay up with the changing industry and new products is taken into consideration and the ASTM Committees meet on a regular basis throughout the year. In fact, CPSC staff attends ASTM committee meetings and is asked for input and support of the Standards to ensure that both organizations are working towards the same goal...to provide safe playgrounds and equipment for our youth.

Currently there are significant areas of conflicting information between the two documents. This results in confusion among consumers, especially since the play equipment industry references compliance to ASTM Standards not the CPSC guidelines. It also is causing difficulty in training Playground Safety Inspectors who perform third party inspections of playground equipment and surfacing to insure compliance with safety guidelines and standards. These current inconsistencies make it nearly impossible for the CPSC and the Industry to efficiently and practically meet our mutual goal of providing

safe playgrounds and play equipment for our youth. That being said, we would like to collectively help and provide a solution to this problem.

The organizations that have signed this letter are respectfully asking for the following from CPSC:

1. The opportunity to meet face-to-face to go over the extent and ramifications of these issues, and provide suggested changes to the CPSC Handbook along with rationale for the changes.
2. That CPSC rely on the ASTM F1487 for technical specification and focus the Handbook on hazard identification for Owner Operators to help create and maintain safer play environments.
3. That the statement from the 1997 Handbook that appeared on Page 1 (Clause 1.2) specifying that "ASTM F1487 contains more technical requirements than this Handbook and is primarily intended for use by equipment manufacturers, architects, designers and any others requiring more technical information" be reinstated in the new Handbook.

We respectfully request the opportunity to collectively meet with CPSC representatives to discuss this issue and resolve it. The goal of all parties is to provide consistent information for the ultimate goal of providing safe playgrounds and equipment. We'd like to work with CPSC to make that a reality.

We look forward to your reply so that we may finalize a date to meet face-to-face. Thank you in advance for your attention to this important matter.

Sincerely,

Tim Ahern, President
International Play Equipment Manufacturers
Association

Donna Thompson, Executive Director
National Program for Playground Safety

William Foelsch, Chairman
National Playground Safety Institute

Karen Spears, Chairman
National Playground Contractors Association

cc: Nancy Nord, Acting Chairman, CPSC
Thomas Hill Moore, Commissioner, CPSC
Patsy Semple, Executive Director, CPSC
Celestine Kiss, CPSC
Len Morrissey, Project Manager, ASTM
Ken Kutska, ASTM F15.29 Chairman
Senator Dick Durbin
U.S. Senate Committee on Commerce, Science & Transportation, Subcommittee on
Consumer Affairs, Insurance and Automotive Safety
U.S. House Committee on Energy and Commerce, Subcommittee on Commerce, Trade
& Consumer Protection
U.S. Senate Committee on Appropriations
U.S. House Committee on Oversight and Government Reform



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U.S. CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

August 22, 2008

Mr. Tim Ahern, President
International Play Equipment Manufacturers Association (IPEMA)
4305 North Sixth Street, Suite A
Harrisburg, PA 17110

Dear Mr. Ahern:

Thank you for the recent letter that you and your colleagues sent regarding the U.S. Consumer Product Safety Commission (CPSC) staff publication *Public Playground Safety Handbook* (Handbook).^{*} As you noted in your letter, CPSC staff has worked closely with the national playground organizations to maintain current and accurate safety documents for the general public and playground industry. The revisions undertaken for the Handbook were no exception.

Your letter indicates that you feel there are "significant areas of conflicting information" between the ASTM standard and the Handbook. CPSC staff is not aware of significant differences or conflicts, and we are disappointed that the perception of such differences remains at this stage. For more than two years, staff worked closely with ASTM and its members to solicit comments in order to accurately update this Handbook. Members were given two 30-day comment periods in which to review the document and provide comment. All comments were reviewed and addressed to the best of staff's ability to harmonize the Handbook with ASTM standards without losing the unique intent of the CPSC staff document. As noted in the Handbook, it is "expected to promote greater safety awareness among those who purchase, install, and maintain public playground equipment." It is not intended to be identical to ASTM standards.

CPSC staff would welcome further dialogue to resolve any issues or discrepancies you feel exist in the Handbook. It is our intent to publish the most accurate and useful reference document possible. To begin this dialogue, prior to a face-to-face meeting, it would be helpful if you would provide in writing the areas of conflict that you believe need to be addressed. Please note that as a result of comments received at the ASTM meeting in Denver, Colorado in May 2008, staff has already noted the need to include a statement referring to ASTM F1487 *Standard Consumer*

^{*} These comments are those of CPSC staff, have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

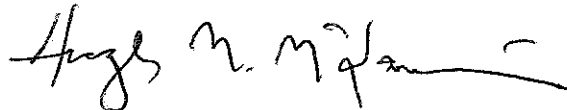
Mr. Tim Ahern
August 22, 2008
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Safety Performance Specification for Playground Equipment for Public Use for more technical guidance. In addition, staff has already corrected a technical error in Section 5.3.2.1.2 *Fall height related to climbing equipment*.

CPSC staff respectfully disagrees with your request to remove all technical information from the Handbook and rely on the ASTM standards. The Handbook is intended to provide as much useful guidance as possible, free of charge, to the general public. In providing this guidance, staff believes that the Handbook is the most beneficial to its intended audience in its current form.

Thank you again for your interest in reviewing and providing inputs on the Handbook. I look forward to continuing discussions that help resolve any remaining differences.

Sincerely,

A handwritten signature in black ink, appearing to read "Hugh M. McLaurin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Hugh M. McLaurin
Associate Executive Director
Directorate for Engineering Sciences



October 3, 2008

Consumer Product Safety Commission (CPSC)
Hugh McLaurin, Associate Executive Director
Directorate for Engineering Sciences
4330 East West Highway
Bethesda, MD 20814

Dear Mr. McLaurin –

This letter is in response to your letter dated August 22, 2008. In that correspondence you noted that, prior to a face-to-face meeting to discuss the discrepancies between the CPSC Handbook, it would be helpful if we provided the areas of conflict that we believe need to be addressed.

Following is a document that delineates some of the concerns that we have as an industry between the Handbook and the Standards. We have also outlined some discrepancies that exist within the Handbook, in case they have not yet been noticed by CPSC Staff or others who have read the document.

We appreciate the opportunity to put our specific thoughts and concerns in writing prior to a meeting for your review. Once you are ready to meet with our representatives, please let me know so that we can schedule a mutual time to conduct that meeting.

Thank you for this opportunity. We really do appreciate your willingness to listen to the industry's concerns.

Sincerely,

Tim Ahern
President

cc: William Foelsch, Chairman, National Playground Safety Institute
Donna Thompson, Executive Director, National Program for Playground Safety
Karen Spears, Chairman, National Playground Contractors Association
IPEMA Board of Directors

Review and Comparison Document (CPSC Handbook for Public Safety 08/ASTM 07)

Accessibility

- CPSC – 1.3 page 1 (These guidelines are not intended ...) Equipment components intended solely for the disabled and modified to accommodate such users also are not covered by these guidelines.
- ASTM – 1.5 page 1, This specification does not address accessibility, except as it pertains to safety issues not covered in the Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- Suggest - CPSC change this statement. The current statement infers that equipment intended solely for children with disabilities may be excepted from the equipment safety requirements as outlined in the CPSC #325 Handbook. ASTM clearly states F1487 does not address ADAAG requirements, but does require it to comply with requirements.

Age Overlap

- CPSC - 1.6 Background, Page 2 – refers to toddlers as ages 6 months through 2 years which would include children 35 months of age.
- ASTM - The Standard specifically addresses toddlers as those children who are under two years of age.
- Suggest - The age range be re-considered and reworded to include children under two years of age. The overlap of 12 months presents a problem when testing play areas. The under two standard for barriers is based on the center of gravity of the 23 month old. With the overlap would we be required to raise the barriers to accommodate the 35 month old? This age range also contradicts statements elsewhere in the handbook such as Table 1 Age Appropriate Equipment, list equipment intended for children under two. The issue of overlap becomes a problem with equipment that is not recommended for a particular age group. If the equipment is not recommended for an age group and there is a one year overlap, can the overlap year child use the equipment? Track rides for example are not recommended for children 2-5. The ASTM standard says they are not recommended for children under the age of five. In States that have mandated compliance with CPSC this is a huge difference. The same is true for all equipment not recommended for the pre-school age child. Can a five year old play on this equipment?

Projection Definition

- CPSC - 1.8, page 4 – Definitions – Projection – Hardware that extends outward from a surface of the playground equipment and must be tested to determine whether it is a protrusion or entanglement hazard, or both.

ASTM - 3, page 3 – Terminology – 3.1.26 projection —condition which, due to its physical nature, must be tested to the requirements of this standard to determine whether it is a protrusion or entanglement hazard, or both.

Suggest - Change this definition to be consistent with ASTM. CPSC relates only to hardware. ASTM applies to all physical parts configurations including hardware.

Toddler Definition

CPSC - 1.8, Page 4, Definitions – Toddlers – Children 6 months through 2 years of age

CPSC - 1.3, page 1, Indoor child care facilities should refer to ASTM F2373 for Children 6 months through 23 months.

ASTM - F2373 does not define a “toddler”, but notes that the Standard covers children through 23 months of age.

Suggest - Change definition to be consistent with ASTM. F2373 covers both indoor and outdoor equipment for children 6 months through 23 months. CPSC should recognize this in the Handbook, as it provides more technical specification. Adding the Toddler definition in Handbook being 6 months through 2 years adds confusion for the intent of developing age appropriate equipment as outlined in ASTM F2373. Clearly the intent of F2373 was to define the user as under 24 months of age.

Protrusion, Projection and Entanglement Definitions

CPSC - Page 4 – definitions. Protrusions – A projection which, when tested, is found to be a hazard having the potential to cause bodily injury to a user who impacts it, or whose clothing becomes entangled on it. Projection — Hardware that extends outward from a surface of the playground equipment and must be tested to determine whether it is a protrusion or entanglement hazard, or both. Entanglement — A condition in which the user’s clothes or something around the user’s neck becomes caught or entwined on a component of playground equipment.

3.2, Page 13, Entanglement and Impalement – the CPSC Handbook groups these two distinct hazards together. The first three points in this section pertain specifically to entanglement. Each of these hazards should be identified separately and be consistent with ASTM.

ASTM - The ASTM definition relates to injury by impacting the projection. A protrusion hazard is a projection that fails the protrusion test method. Entanglement hazards are very different from protrusion hazards and the word entanglement should not be used in the definition of protrusion. It is a projection that has the potential to either impale or entangle. Refer to the definitions in ASTM F1487.

Suggest - The definitions be consistent with ASTM. The definitions in the Handbook are different than ASTM’s definitions and are conflicting to consumers. For example, the use of the word “entangled” in the definition of protrusion conflicts with the

definition of entanglement. Which definition do consumers and industry leaders use?

Conflicting Activities

CPSC - 2.2.3 Conflicting Activities – The inclusion of use zones in this section is confusing. CPSC recommends that slide exits be in uncongested areas. “Uncongested” is not defined and this only adds to the interpretation issues of this section.

5.3.6.5, Page 35, Slide use zone – Slide exit use zone is not consistent with ASTM. CPSC slide use zones are based on free standing slides and have not change or updated with ASTM and composite structure use zones. CPSC Injury Study states the current use zones (updated use zone for composite structures and independent use zone) are not a factor for injuries in their findings. With that there should be no conflict between CPSC and ASTM.

ASTM - There is a clear difference between independent equipment and composite play structures and the different use zones for each.

Suggest - Add to the 2nd paragraph the word “independent” so the Sentence would read – “Different types of independent equipment have different use zones.....” This would assist in clarifying the difference between independent equipment and composite play structures.

Sight Lines

CPSC - 2.2.4, Page 6 Sight Lines - It is important for parents and caregiver to be able to track the children as they move through the play environment, it is difficult to define “minimize as much as possible” and “equipment should be as visible as possible” from park benches.

2.2.6 – This is the type of information CPSC Handbook should provide for good guidance for supervisor/caregivers and owner/operators.

ASTM - This area is not addressed in ASTM standards.

Suggest - Park Benches and attentive supervision are at odds with one another. Supervision and visibility work together, as the child moves the supervisor/caregiver moves with them for the most impact. We suggest the Handbook highlight attentive supervision and remove supervision from park benches.

Selecting Equipment

CPSC - 2.3, Page 7, Selecting Equipment – The wording of this section is somewhat confusing and a change from the 97 Handbook and CPSC draft 2007 to the current 08 Handbook. In the previous versions, a more comprehensive list of equipment not recommended for specific age groups was included.

Table 1 Age Appropriate Equipment Page 7, Toddler – Under 2

The age group Under 2 (6months To 23 months F2373) is in conflict with CPSC 1.8 Definition of Toddler – Children 6 months through 2 years of age. (35 months).

ASTM - F2373 defined the age groups based on child development and child-care age separation.

Suggest - It is recommended that CPSC consider using the information from the previous version of the Handbook as it relates to selecting equipment, or the information contained in the CPSC Handbook draft 2007, located on page 35.

Age Separation of Equipment

CPSC - #325 1997 Handbook 5.3 (Age Separation of Equipment) list of components were specific, such as “ free standing arch climbers”, “free standing climbing events with Flexible components” etc. The list of components in the new Handbook draft is not as specific as in the previous version.

This is a significant change and impacts a lot of equipment installed in the field and new playground designs. I believe we are all supportive of the 97 wording but not the 08 as it is restrictive and does not take into consideration Supervision and “playground should allow children to develop gradually and test their skills providing a series of graduated challenges”, along with age appropriate playground designs accommodating these differences with respect to type, scale and layout. (CPSC 1.6)

Suggest - To resolve this conflict, we suggest using the 97 Handbook and the 07 CPSC Handbook draft wording by inserting the words “free standing” before arch climbers and climbing events with flexible components into Section 5.3.

Angles

CPSC - 3.3.2 – Angles – CPSC is not consistent with ASTM when it comes to addressing partially bounded openings. Angles should be greater than 55 degrees, unless one side is horizontal or below horizontal.

ASTM - F1487 specifies a test procedure to determine a partially bound opening and is more comprehensive than what is in the Handbook.

Suggest - At the end of this section, simply refer to ASTM Standards for more detailed information related to determining partially bound openings.

Suspended Hazards

CPSC - 3.5 – Page 15, Suspended Hazards – This entire section is inconsistent with ASTM. CPSC speaks to a single suspended component. CPSC does not have the exemption for multiple suspended components that is found in ASTM 6.6.2.

ASTM - In Section 6.6 of the ASTM Standard, suspended hazards are clearly defined and speak to multiple suspended components.

Suggest - Clearly defining multiple suspended components. This section is confusing as it suggests that it is OK to have a suspended component within 45 degrees from the horizontal if it is not located in a high traffic area, is brightly colored and is anchored at both ends. The 08 Handbook expanded this section from the 97 Handbook but failed to be consistent with ASTM.

Guardrails and Protective Barriers

CPSC - 5.1.3, Page 19, Guardrails and Protective Barriers – Within this section, the requirement of having one rail of a horizontal guardrail placed overhead if the opening is greater than 15 inches is missing. In addition, there are no exceptions for stairways or ramps.

ASTM - ASTM allows for the use of a single horizontal rail as an option for preventing an inadvertent fall. ASTM also includes exceptions to this requirement such as for upper body equipment because a user who is trying to land on a platform may not have the coordination or strength to pass their body through a 15 inch opening or small opening. The same exception applies to stairways, ramps and transfer systems. (See ASTM 7.5.5.2 for guardrails and ASTM 7.5.6.3 for protective barriers)

Suggest - This conflict between CPSC and ASTM is major as it affects all existing designs since 1998 ASTM F1487 publication. We recommend that the same exceptions be included in the Handbook as are included within the ASTM standard.

Stairways and Vertical Rise

CPSC - Table 6, Page 22 Stairways, Vertical rise – Pre-School – less than or equal to.

Suggest - Changing the sign. The table indicates “greater than or equal to” instead of “less than or equal to”. All the signs in this table should be checked for accuracy.

Climbing and Upper Body Equipment

CPSC - 5.3.2, Page 24 – Climbing and Upper Body Equipment
Last sentence states for the first time playgrounds designed for children under 4 years should avoid arch climbers, flexible climbers, horizontal ladders, parallel bars and other upper body components. This conflicts with Table 5, Pre-school Arch Climbers/Flexible Climbers.

Suggest - Consistency between Table 5 and Section 5.3.2

Illustration Issue

CPSC - Fig. 11/13, page 26/27 does not illustrate the 15 inch max. opening requirements.

Suggest - We suggest adding an indicator showing the 15” opening and then adding the overhead rail to the illustration, or referencing readers back to the section that states “if greater than 15”, one horizontal rail must be added.”

Horizontal Ladders

September 8, 2008

- CPSC - 5.3.2.4, page 27 Horizontal (overhead) ladders – States that the horizontal distance from the platform out to the first handhold should be at least 8 inches but no greater than 10 inches. The CPSC 1997 version stated the first handhold on either end of the upper body equipment should not be placed directly above the platform or climbing rung used for mount or dismount.
- ASTM - F 1487-07 (8.3.2) states – The horizontal distance from the leading edge of the take-off or landing structure, or both, out to the first handhold of upper body equipment shall be no greater than 10 inches. In addition, where the take-off or landing point is provided by means of rungs, the horizontal distance to the first handhold shall be at least 8 inches but no greater than 10 inches.
- Suggest - The Handbook be clear about the requirements for horizontal ladders. The 8-10 inch requirement (ASTM 8.3.2) is only when access to upper body equipment is with the use of rungs (as in vertical type rung ladder). This requirement has been in ASTM F1487 since first published in 1993. The 08 CPSC 5.3.2.4 first time requirement makes all existing equipment installed to ASTM F1487 non-compliant to CPSC 08 when using the less than 10 inch rule off a platform.. (This was not in the 07 CPSC draft.)

Overhead Rings

- CPSC - 5.3.2.5, Page 28, Overhead rings – The horizontal distance to the first handhold should be at least 8 inches but no greater 10 inches.
- Suggest - The Handbook be clear about the requirements for overhead rings. This is the same issue as 5.3.2.4, previous points. (This was not in the draft 07)

Log Rolls

- CPSC - 5.3.3, page 29, Log Rolls - Use Zones
- the use zone may overlap with neighboring equipment if the other piece of equipment allows overlapping use zones and
 - There is at least 6 feet between equipment when adjacent designated play surfaces are no more than 30 inches high; or
 - There is at least 9 feet between equipment when adjacent designated play surfaces are more than 30 inches high.
- Suggest - Log Roll use zones per clause 5.3.3 are for free standing log rolls and therefore should be stated as such. Fig. 14 illustrates a log roll can be a component attached to a composite structure but the text of 5.3.3 would restrict it. Please note: Log Rolls are permitted to be both free standing and part of a composite structure.

Tube Slides

- CPSC - 5.3.6.3.5, page 34, Tube Slides
- Recommendations for barriers or textured surfaces to prevent climbing and sliding on top of the tube is not well thought out. It is well documented that children can access equipment despite barriers being placed around and climb 7 foot barrier walls, e.g. soft contained play equipment. Also, textured surfaces on

plastic slides can have the opposite effect in preventing sliding and would provide less co-efficient friction and result in a slipperier surface.

The last point in this section recommends transparent tube sections for observation/supervision. Transparent plastic sections have a shorter life cycle than solid colored plastic sections. Transparent plastic has a much higher maintenance requirement and when these sections fail, they can be very dangerous with sharp splinters.

Suggest: Removing second and fourth bullet points in 5.3.6.3.5.

Swings

CPSC - 5.3.8.1 Swings- Hardware requirements are only mentioned in this section of the Handbook.

Suggest - It would be more consistent with ASTM to have a section on hardware, requiring all hardware to meet these conditions, not just swing hardware.

CPSC - 5.3.8.3.2 – The recommendation that only the same style of seat such as “fully enclosed” be suspended from the same bay is fine when there is more than one bay, but a problem when there is only one bay.

Suggest - Consider allowing the use of an open seat with a bucket seat when a swing set has only one bay. This requirement, as currently written, places an undue burden on small child care centers that have limited space.

CPSC - 5.3.8.3.3 Swing use zones – CPSC recommendation is not fully consistent with ASTM as ASTM allows the use zone of the stationary supports to overlap other use zones with a min. overlap of 108”. This overlap is included for other stationary components but has been omitted for swings. In addition, the requirements for multi-axis versus single-axis are different, as multi-axis allows for the overlap to be with “other playground equipment structures” where the single-axis requirement only allows overlap with “an adjacent swing structure”.

ASTM – 9.4.1.5 Swing use zones – The use zone surrounding the support structure of a to-fro swing shall extend no less than 72” in all directions from the structure. (1) the support structure use zones for adjacent to-fro swings may overlap; (2) the use zone for a support structure of a to-fro swing in the use zone of other play equipment may overlap. The minimum overlap shall be 108”.

Suggest - Single axis definition of use zone be consistent with multi-axis definition of use zone and add to the last sentence “or other playground equipment structure”. CPSC does allow the stationary supports of tire swings to overlap other play events with a minimum of 108 inches which leads us to believe that the omission for to-fro swings was an error.

CPSC - 5.3.8.4 Tire Swings – CPSC has removed the 35 pound weight limit for tire swings.

Suggest - Put the 35 pound weight limit back into the handbook.

Functionally Linked Play Structures

CPSC - 5.3.9. Use Zones – There is no mention in the document of how to treat the use zone of a composite structure or of play functionally linked pieces. Without clarification play functionally linked components which were part of a composite structure linking one platform to another requires a nine foot minimum separation in between each component.

ASTM - Functionally linked play structure is defined as: Play structure that acts as a single unit in its physical form or sense of function as continuous play, even if the components are not physically attached.

Suggest - Allowing for functionally linked play structures. The nine-foot separation disallows play functionally linked pieces in a layout/design.

Head Entrapment

CPSC - B .2.5 Head entrapment – The recommendation that the torso probe has to be able to penetrate an opening to a depth of 4 inches has been eliminated. The 4” depth is illustrated in Figure B8, but not mentioned in any of the copy.

Suggest - It is recommended that CPSC add this back into the handbook to be consistent with ASTM and the prior CPSC documents. It is our understanding the reason for having the four inch depth of penetration was relating to a head first entry into an opening. 4 inches is the point at which the ear flaps could become caught, it had nothing to do with a feet first entry. The 4 inch depth penetration has been in the CPSC Handbook since the 91 Revision. Adding this back would maintain the consistency of CPSC rationale and Handbooks and would be consistent with ASTM.

Corners

CPSC - Section 3.4 - Remove “corners” from all references in the title and subsequent verbiage

ASTM - Corners are inherently covered as a sharp point or edge.

Suggest - Removing “corners” from all references to be consistent with ASTM.

Vertical Falls

CPSC - Section 5.3.2.1.5

Suggest - Clarify that this requirement refers to vertical falls greater than 18”, as this clarifies the original intent of this requirement.

3-Dimensional Climbing Net Structures

CPSC - Section 5.3.2.3

ASTM - 8.2.5 3-Dimensional Climbing Net Structure (See figure xx.xx).

8.2.5.1 The mesh structure shall be arranged in a manner so there is no clear opening between flexible members with a vertical dimension greater than 72" and a diameter of 18" (457mm) for climbing nets intended for 2 through 5 year olds, and a diameter of 20" (510mm) for climbing nets intended for 5 through 12 year olds. See Figure xx.xx.

8.2.5.2 The fall height for 3-dimensional matrix nets shall be the highest distance of either the interior or exterior fall height. The minimum fall height for structures greater than 72" (1829mm) shall be 72".

8.2.5.2.1 The exterior fall height shall be the highest point at which a rigid vertical member contacts the climbing net structure when moved around the perimeter. See Figure xx.xx.

8.2.5.2.2 The interior fall height shall be the distance between the protective surfacing and the highest member where there is a vertical clear opening 18" (457mm) in diameter for climbing nets intended for 2 through 5 year olds, and a 20" (510mm) in diameter for climbing nets intended for 5 through 12 year olds. See Figure xx.xx.

Suggest - Add specific sections pertaining to 3-dimensional matrix nets per the requirements as defined in ASTM F1487-07 section 8.2.5. This prevents excessive freefall heights onto a flexible member. The clear opening diameters in each of the age groups is conservatively based upon the following anthropometric dimensions: shoulder width (8.66" – 5% 2 year old, 9.72" – 5% 5 year old), the lateral grip reach (18.9" – 5% 2 year old, 20.67 – 5% 5 year old). The lateral grip reach is measured from the opposite shoulder to the extended reach of the hand. If you considered the total lateral grip from hand to hand it would measure 29.14" – 5% 2 year old, and 31.62" 5% 5 year old. Typically users on nets of this style maintain three points of contact with the net at all times. If a fall to the interior occurred, the user would not fall directly through the net in such a manner that only shoulder width should be considered. Therefore the lateral and wide spread grip ranges were also factored into the size of the opening. Note: The diameter requirements are more restrictive than that being proposed by the CEN. The 72" vertical dimension is consistent with interior clearance requirements being proposed by the CEN. Because of the posture (leaning inward/forward) maintained by users on climbing net structures, it is reasonable to assume that the height of an external fall would occur at the highest point on the exterior of the structure where the vertical member makes contact.

Trade Rides

CPSC - Section 5.3.2.7 - Fifth bullet point states, "Nothing should ever be tied or attached to any part of a track ride".

Suggest - Changing verbiage to, "Nothing should ever be tied or attached to any part of a track ride trolley or handle". We do not want to allow the possible interpretation that track rides can not be attached or "tied to" a composite structure.

Bucket Swing Seats

CPSC - Section 5.3.8.3.2

Suggest - Remove the minimum and maximum pivot point heights for full bucket swing seats. Or at least change the maximum to 96". The current verbiage makes any 8' swing with full bucket seats existing in the field non-compliant.