

MEETING LOG
Directorate for Engineering Sciences

PRODUCT: Treadmills

SUBJECT: *ASTM F08.30 Fitness Products* Subcommittee Task Group (TG) Meeting on Treadmill Standards

LOCATION: Teleconference via WebEx

DATE: Tuesday October 12, 2021, 2-4pm ET

ENTRY DATE: Tuesday November 23, 2021

LOG ENTRY SOURCE: Susan M. Bowley, Ph.D. Mechanical and Biomedical Engineer, ASTM F08.30 CPSC Technical Representative

COMMISSION ATTENDEES (3): Susan M. Bowley, Ph.D., ESMC; Han Lim, PM, ESMC; Tim Smith, ESHF

NON-COMMISSION ATTENDEES (22) (Note: Attendance List provided by ASTM/TG on 10/29/21): Harv Voris, HCV Consulting LLC, F08.30 Chair; Brad Bearnson, Attorney; Sam Bowen, Peloton; Robert Burck, Johnson Health Tech, F08.30 Secretary and EN Standards Representative; Brian Chase, Nautilus; Neal Cohen, Esq., Neal Cohen Law LLC; Kevin Danford, Peloton; Scott Eastman, Nautilus; Joel Hawk, UL; Jason Hertzberg, Exponent; Laurel Jensen, Icon Health and Fitness; Lance Lanciault, Peloton; Kathy McCrea, (Unknown Group); Alex Menektchiev, Life Fitness; Joe Musso, UL; Sean Oberle, Product Safety Letter; Julie Park, Esq. Morrison & Foerster, LLP; Ben Peterson, Woodway; Mike Phillips, Alter G; Pete Ploss, Stamina Products; Scott Schroeder, Exponent; Larry Todd, Chief Engineer, Intertek

MEETING SUMMARY:

- Discussion related to Meeting Minutes review and approval process not being followed per Roberts Rules. TG Secretary and Chair indicated future Minutes would be distributed within 1 week of the Meeting for review by all attendees for corrections (not done for this Meeting).
- Discussion concerning CPSC incident data spreadsheet provided September 2021. The TG asked if the date the incident product/treadmill was manufactured can also be provided, along with additional details concerning the incident. CPSC preliminary indicated these items are not available.
- Discussion concerning assertion that most incidents with children are related to lack of adult supervision, instructions to adult, and warnings on product, and the need to better educate owners/adults.
- Discussion of TG members related to three (3) submissions received related to proposed updates for F2276.

- Discussion concerning the definition of “entrapment” or “pull-in” related to an object versus a part of the body. Discussion that “entrapment” seems to be a subset of “pull-in” and “pull-in” refers to a location, while “entrapment” refers to a condition after “pull-in” occurs.
- Discussion to separately address a finger versus a body part being “pulled-in” underneath treadmill.
- Discussion concerning an object such as a ball being “pulled-in” leading to body parts of children then being “pulled-in” and/or “entrapped.” Also discussed that current definitions seem to indicate small body parts are applicable to “entrapment” definition, whereas larger body parts or objects are “pulled in.”
- Discussion concerning ISO 20957 Part 6 and including/incorporating language related to “pull in” hazard in the updates to ASTM treadmill standards.
- Discussion concerning the fact that some motorized treadmills can rotate the tread surface/deck in two opposite directions (forward or backward) and that standards updates should address this type of design. Discussed language related to “designed and/or guarded” to address this design feature on some treadmills.
- Discussion of finger probe from EN 71 Standard, “Probe B” specifically to address children and an 8.6mm (0.344in) tip diameter “Toy Probe.”
- Discussion concerning different finger probe requirements for commercial versus consumer use locations for treadmills.
- Discussion about whether an 8.6mm (0.344in) gap will work for slatted treadmill manufacturers. Indication from some TG members that once a guard is placed on a slatted treadmill this gap will be an issue, since the gap is fluctuating when the motor is on.
- Discussion from one TG Member concerning whether the relative diameter of the rear-roller of the treadmill, compared to the diameter/size of the object/finger/body part, is a factor in the “pull in” process.
- Discussion concerning testing that several TG members performed with inflatable exercise balls: 24in inflated balls, and 6mph runner on treadmill surface. Description of testing results indicated that a guard was included in the rear-roller area, “back and behind” the rear-roller. Results indicated that the object hit the guard and did not contact the moving treadmill belt/tread.
- Discussion from one TG member that “pliable balls” of larger diameter will easily get sucked underneath, even with a guard in place. Discussion from some TG members concerning the object tested and implication that “large diameter flexible balls” are the only danger. Discussion from some TG members concerning other testing completed for other objects beyond exercise balls which involved using dumbbells, and “plates” as contact objects.
- Discussion of the possibility of incorporating a “safety design feature” into the updated standards to allow for a design of a control system to automatically shut off the treadmill once an object/body part is pulled underneath to limit the extent of harm/injury to the child.
- Continued discussion of possible existing child finger probes that the TG could adopt from the EN 71 Standard: Probe A for 0-36 months, Probe B for 37-96 months.
- CPSC Staff asked the TG if anyone has tested other objects, such as those that children would have in their hands. One TG Member indicated that some testing was done but there was “too much variability with hard and soft objects.” The member claimed that the guard generally works for hard objects, but “soft objects get sucked under even with the guard present”.
- Claims from a TG Member that there is “not as much gripping” present when using “plush objects” to test (he also has videos from tests he completed to support this claim, which he

plans to share with TG). Continued discussion of object testing results: one TG Member indicated that the pull-in depends on the friction between surfaces, including the floor.

Meeting was adjourned at 4:07pm ET