United States
**Consumer Product Safety Commission**

# MEETING LOG

**SUBJECT:** UL 8400 Technical Committee Meeting on Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR) Technology Equipment

**FY 23 OP PLAN ENTRY:** Wearables

**DATE OF MEETING:** 11/02/2023

**LOCATION OF MEETING:** Virtual

**CPSC STAFF FILING MEETING LOG:** Stephen Harsanyi (ESHF)

**FILING DATE:** 11/07/2023

**CPSC ATTENDEE(S):** Stephen Harsanyi (ESHF) and Treye Thomas (EXHR)

**NON-CPSC ATTENDEE(S):** Contact ULSE for attendee list.

**Summary of Meeting:**

The Technical Committee (TC) for UL 8400, *Standard for Safety, Virtual Reality, Augmented Reality, and Mixed Reality Technology Equipment,* met to review the progress of the eight task groups. The task groups pertained to the following subjects: age requirements, general requirements, alignment with UL 62368-1, skin compatibility, biomechanical stress, safety and warning instructions, functional safety, and transmittance.

CPSC staff recommended including in the proposed hazard and clause breakdown table additional biocompatibility concerns other than skin sensitization, such as bacterial/viral infection and inhalation of volatile organic compounds. Staff explained that addressing the need for an acceptable level of sanitization is of particular importance given the heightened post-COVID concern with infectious disease and that VR headsets may be used in scenarios with multiple users. Staff proposed forming a task group to address chemical migration and new minimum requirements for cleaning and sanitization. Staff recommended that the skin compatibility risk assessment shall, rather than may, be performed by a qualified person. Staff also recommended that the opening paragraph in Annex E on the risk assessment for skin compatibility address safety rather than discomfort.

Staff and a UL solutions representative raised concerns about eye damage from prolonged exposure to heat generated by head-mounted devices, specifically lengthy and repeated uses over multiple days. The relevant task group chair explained that at UL 8400's specified temperature limit, there is no risk of injury beyond common damage to the epithelial layer that occurs normally from daily activities.

The TC discussed allowing an alternative test for biomechanical stress. Staff recommended the TC confirm that the requirements address safety rather than performance, as well as dynamic use and use by younger populations, particularly under 12 years of age, as other proposed changes to UL 8400 included covering

products intended for ages under 12. Staff raised concerns that too many requirements are dependent on vague risk assessments and may pose safety concerns and issues for consistency in testing. Another TC member explained that flexibility is necessary to address the wide variety of products and uses. Staff responded by stating that some minimum requirements are valid and necessary.

Additionally, staff indicated they are working on getting the TC incident data to review.

**Next Steps:**

The TC plans to have a 30-day preliminary review of the draft revisions prior to the end-of-year holidays. No further TC or task group meetings are scheduled at this time; however, the TC plans to form additional task groups in the future, such as those pertaining to chemical migration.