



MEETING LOG

SUBJECT: XR Association

FY 23 OP PLAN ENTRY: Wearables

DATE OF MEETING: 05/17/2023

LOCATION OF MEETING: Rockville, MD.

CPSC STAFF FILING MEETING LOG: Treye Thomas (EXHR)

FILING DATE: 05/23/2023

CPSC ATTENDEE(S): Doug Lee (EXHR), Dustin Pledger (CRE), Eric Hooker (HS), Joanna Matheson (HSTR), Jacqueline Campbell (EXHR), Richard Uhl (LSC), Stephen Harsanyi (ESHF), Taehyeon Cho (HSTR), and Treye Thomas (EXHR).

NON-CPSC ATTENDEE(S): Stephanie Montgomery (XRA) and Peirce Clark (XRA)

Summary of Meeting:

Two representatives of the XR Association (XRA) met with CPSC staff at CPSC's Rockville Campus to discuss immersive technologies, such as virtual reality (VR), augmented reality (AR), and mixed reality (MR). The XRA representatives provided information about their association, explaining that it is a national trade association started by industry manufacturers approximately 5 years ago. The representatives reviewed numerous use cases for immersive technologies, such as in the sectors of healthcare, workforce, entertainment, education, public safety, fitness, and retail. The representatives indicated that their association generally considers VR to be appropriate starting at 12 years of age, which is inline with the newly developed immersive technology standard, ANSI/CAN/UL 8400, *Standard for Safety: Virtual Reality, Augmented Reality, and Mixed Reality Technology Equipment* (published on April 28, 2023). The representatives explained that the XRA seeks to address through industry best practice guidelines the following concerns for immersive technologies, among others: comfort and safety, security, regulation, equity in access and use, user interfaces, and social outcomes of virtual environments.

CPSC staff expressed their ongoing concerns regarding inadequate voluntary standards and regulations for immersive technologies regarding the following points:

- hazards pertaining to hardware other than head-mounted devices (e.g., haptic body suits and controllers);
- hazards pertaining to third-party software (e.g., VR games);
- importance of addressing use of the products by vulnerable populations, particularly young children, for whom biomechanical/musculoskeletal distress (e.g., neck strain) and neurological problems (e.g., harm



to visual systems) are especially concerning (these risks are also present for other typical end users);¹

- risks for electromagnetic interference and adverse biocompatibility reactions;
- necessity for hazard identification hardware and software for head-mounted devices with optical occlusion (e.g., affording VR headsets the ability to warn consumers about stairs and objects in the real world);
- challenges and implications of software and firmware updates;
- security risks associated with connected devices;
- implications of visually-induced motion sickness on risk of impacts and collisions during and immediately following exposure to immersive technologies; and
- importance of having more normative requirements for immersive technologies (*i.e.*, ANSI/CAN/UL 8400 currently relies too heavily on informative requirements).

Next Steps:

CPSC staff plans to continue correspondence with the XRA in the future to further improve the safety of immersive technologies.

¹ For example, CPSC staff recommended, at a minimum, that VR products not be marketed to young children, and that the marketing should include proactive age labeling to clearly identify the appropriate ages.