



MEETING LOG

SUBJECT: ASTM F15.19 Wearable Infant Blankets Performance Requirements Task Group Meeting Log

FY 23 OP PLAN ENTRY: Wearable Infant Blankets

DATE OF MEETING: 06/12/2023

LOCATION OF MEETING: Virtual

CPSC STAFF FILING MEETING LOG: Khalisa Phillips, Ph.D. (ESHF)

FILING DATE: 06/20/2023

CPSC ATTENDEE(S): Khalisa Phillips, Ph.D. (ESHF), Suad Wanna-Nakamura, Ph.D., & Ashley Johnson, Ph.D. (HSPP), & Jacqueline Campbell (EXHR)

NON-CPSC ATTENDEE(S): Contact ASTM for a list of non-CPSC attendees.

Summary of Meeting:

The purpose of this task group (TG) meeting was for Nested Bean to present their safety research program on “gently weighted” infant sleepwear. The aim of their safety research is to keep the concentration of weighted filling low enough to allow for adequate airflow and to not prohibit an infant’s arm and leg movement when a baby shows signs of rolling over. The firm spoke of responsibilities they and other manufacturers of such infant sleep products have towards consumers such as always to be innovating and creating safer products, and working to improve instructions, education, and warnings to help consumers and minimize unintended use, such as use of excess clothing layers.

The firm began by describing one study comparing carbon dioxide levels for a “gently weighted” product and a thin mattress with a sheet, versus sheepskin, and a fabric covered polystyrene bean-filled cushion. They described the results as indicating a low rebreathing hazard for the “gently weighted” product as compared to the comparators. Then the firm presented a second study looking at preliminary fundamental breathing in infants exposed to incremental chest weights (0g, 30g, 90g, and 270g). Weighted pouches were tested, not sewn into infant sleep garments. Data were collected in 2-minute intervals for five infants (birth-to-six months) fitted with sensors to capture oxygen saturation, pulse rate, breathing rates, and observed movement. The firm reported that pulse rates generally increased, and oxygen saturation decreased with the application of increasing chest weight.

One medical expert applauded the firm’s efforts to research this topic, but cautioned more work is needed to determine whether weighted products are safe for use during unmonitored infant sleep in a non-clinical setting. Some concerns that were expressed regarding the study were the small sample size, large range of infant ages, short time intervals, and possibly concerning biometric data when weight is added to the infant’s chest. The expert also stated there are documented cases of infants rolling as early as 2 months, so it remains important that weight not inhibit rolling back from prone.



CPSC staff asked how the firm identified the specific weight increments that were tested, and whether any consideration was given to how heavy similar wearable infant products are that are already on the market (regardless of whether they are marketed as weighted products). Additionally, staff announced they are purchasing samples and weighing various weighted and non-weighted infant wearable blankets on the market to understand the overall and concentrated weights better, and that staff will provide input to ASTM. Staff also stated they are actively participating in reviewing the May 2023 CPSC incident spreadsheet covering the past 10 years as part of the Data Analysis TG to support formation of performance requirements that are incident driven and/or aligned with expertise on emerging hazards.

Next Steps:

The ASTM F15.19 Wearable Infant Blankets Subcommittee has been actively working to develop a draft standard to send to ballot. Members will take into consideration Nested Bean's safety studies when reviewing performance requirements in the draft standard. However, more research is needed to look into the safety of weighted infant sleep products for longer time intervals, in non-clinical environments, and while wearing fully assembled garments.