LOG OF MEETING
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: ASTM F15.19 Methods for Measuring Re-Breathing Task Group

PRODUCT: Infant Bedding and Sleep Products

DATE OF MEETING: May 9, 2023

PLACE OF MEETING: Teleconference

LOG ENTRY SOURCE: Daniel Taxier (ESMC)

COMMISSION ATTENDEES: Daniel Taxier (ESMC), Suad Wanna-Nakamura (HSPP)

NON-COMMISSION ATTENDEES: Contact ASTM for attendee list.

SUMMARY OF MEETING:

This task group is developing test methods to measure firmness, airflow, and carbon dioxide (CO2) re-breathing for infant sleep products.

The task group discussed whether the draft firmness test is ready to be balloted. Some task group members agreed that it was ready to be balloted, but another task group member questioned whether the draft method should be in the infant bedding subcommittee or not. The task group chair will discuss the issue with ASTM staff.

The task group reviewed the airflow measurement test procedure, and revised the procedure to specify that measurements are to be taken at 3 locations 3 times each, consistent with the firmness test method.

The task group chair then presented graphs showing firmness, airflow resistance, and CO2 measurements. CPSC staff asked what the physiological significance of the data was, and both staff and the task group chair commented that the data did not show any relationship to incident or clinical data or show any clear relationship between the measured values. The task group chair followed this discussion with presentation of a new test intended to measure how much a product can conform to an infant's face. The test measures light emittance as a probe is placed against a surface; a less conforming surface would emit more light, while a more conforming surface would emit less light. The test method is still in development. CPSC staff asked whether the task group chair's hypothesis was that two products of similar firmness could have different levels of conformity to an infant's face, and the task group chair confirmed that was one aspect he was looking into.

The task group will continue discussing draft firmness, airflow, and CO2 re-breathing test methodologies at the next meeting. The next task group meeting is expected to take place on May 23, 2023.