U.S. Consumer Product Safety Commission
LOG OF MEETING

SUBJECT: Meeting of ASTM E56 Committee on Nanotechnology

DATE OF MEETING: November 5-6, 2018

LOG ENTRY SOURCE: Joanna Matheson, HS

DATE OF LOG ENTRY: December 3, 2018

LOCATION: NIST, Gaithersburg, MD

CPSC ATTENDEE(S): Treye Thomas EXHR, Joanna Matheson HS

NON-CPSC ATTENDEE(S): Debbie Kaiser (NIST), Aleks Stefaniak (NIOSH), Justin Gorham (NIST), Vince Hackley (NIST), Dale Porter (NIOSH), Karen Murphy (NIST), Erin Wood (FDA), Li-Piin Sung (NIST), Katrina Varner (EPA), Mark Grossman, Tony Thurton, John Elliott (NIST), Ray Chewie (Arizona State University), Bryant Nelson (NIST), Raki Dulal (FDA). This does not represent everyone participating in the meetings, please contact Kate Chalfin at ASTM for the complete list.

SUMMARY OF MEETING: On Monday, November 5, 2018, the ASTM E56 Nanotechnology committee met in person and via teleconference. The Executive (E56.90), Medical Products (E56.08), Terminology and Informatics (E56.01), EHS (E56.03), and Physical and Chemical Characterization (E56.02) subcommittees met through the day. The medical products subcommittee discussed work on an

in vitro test method for quantitative measurement of chemoattractant capacity of a nano particle; methods that detect nitric oxide production; a test method for the evaluation of nanoparticulate material internalization of phagocytic cells in vitro (including discussion on the challenges with in vitro assays in general, i.e., nano particle interference); imaging dark field microscopy; and, the ongoing work developing new test method for nanomaterial analysis, specifically liposomes. The additional subcommittees discussed the Roadmap Dissolution Pilot Project metadata 'Deep Dive' & FAIR, where each community of research will determine the meta data, the status of the Informatics Roadmap, Nanoreg2 (dissolution rate is being used for grouping and to illustrate metadata concepts, and what is ASTM's role with metadata.

On Tuesday, November 6, 2018, Nano-enabled Consumer Products (E56.06) and Education and Workforce (E56.07) subcommittees met. There have been no ballots since the May 2018 meeting for E56.06. The two negative votes on work item 52147, a standard on the determination of total nano silver in textiles by ICP-OES/ICP-MS, were discussed. The comments were technical comments (e.g., quality control aspects) and are being addressed by the subcommittee chair (Aleks Stefaniak) and Karen Murphy. It is expected that the changes to the standard can be completed by the end of the year for ballot on a new draft. Discussions occurred on potential projects that would fall under the E56 guide (E3025-16) on tools, an umbrella guidance document, proposing to initiate projects on specific methods for measuring silver in textiles. Standard organizations were listed that might want to collaborate on the proposed work (e.g., ISO, ASTM D13, ASTM E56.08, AATCC). A review of existing literature since 2003 was done to assess which methods were used for analyzing nano silver in textiles, and SEM was by far the most common method. Since published literature had methods, sample preparation, and image conditions poorly described, there is a need for standardization. Discussions revolved around how to define the scope, the strengths and weaknesses of the different methods (SEM, TEM, AFM), potential stakeholders, and the need for expertise for the proposed project. There are no current standard activities in E56.07. A presentation was given on the development of international skill standards and stackable certificates for micro-nano workforce education by Penn State and Arizona State Universities. They are working on international accreditation, which would involve passing performance-based exams. They've been looking for exam facilitators, credential testing service, and expanding the library of questions.