

U.S. Consumer Product Safety Commission

LOG OF MEETING

SUBJECT: Meeting of the ASTM E56 Committee (Nanotechnology)

DATE OF MEETING: May 5-6, 2025

PLACE OF MEETING: Virtual

LOG ENTRY SOURCE: Joanna Matheson (HSTR)

COMMISSION ATTENDEES: Joanna Matheson (HSTR)

NON-COMMISSION ATTENDEES: Contact ASTM for a complete list.

SUMMARY OF MEETING:

ASTM E56 focuses on standardization in the field of nanotechnologies, understanding and control of matter and processes at the nanoscale where the onset of size-dependent phenomena usually enables novel applications, as well as use of nanoscale materials to create improved materials, devices, and systems that exploit these new properties. Specific subcommittees address the development of standards and guides for terminology and nomenclature; education and outreach; physico-chemical characterization; nano-enabled consumer products; environmental health and safety; and nano-enabled medical products.

On Monday, May 5, 2025, through Tuesday, May 6, 2025, the ASTM E56 (nanotechnology) committee and two subcommittees by teleconference. Staff participated in the executive committee meeting and subcommittee meetings for Physical and Chemical characterization (E56.02) and Nano-enabled Medical Products (E56.08).

During the E56.02 subcommittee meeting, discussions focused on two 2020 standards that were up for their five year review. The revised version to E220 *Guide for characterization of graphene flakes* underwent balloting and the changes were approved. The updates to E3247 *Test method for measuring the size of nanoparticles in*

aqueous media using Dynamic Light Scattering are complete and the revised standard will go out for ballot the week of May 11th. A status update was provided on WK83164, *Standard analysis of lipid nanoparticle formulations using multi-detector asymmetrical-flow field-flow fractionation*. An interlaboratory comparison (ILC) study is underway in Europe, a draft standard will be ready for collaboration team review once the ILC is completed. In addition, the nanoplastics task group met and a summary was given of the results from the ASTM micro/nanoplastics survey on the need for standards. The task group leads provided the survey results to other relevant ASTM committees as well as other standards bodies. Next steps include finalizing the survey assessment, generating a list of the top nanoplastic standards needs and reaching out to nanoplastic characterization researchers. It was noted that the OECD is creating a new steering group on nanoplastic safety.

In subcommittee E56.08, two work items underwent ballot and have been approved for publication (E3483-2025 *Standard test method for evaluating the impact of particles on phagocytic function in vitro*; E3482-2025 *Standard guide for characterization of encapsulation, extraction, and analysis of RNA in lipid nanoparticle formulations for drug delivery*). Updates were provided on two liposomal formulation projects. Comments were addressed from the balloting of WK67980 *Quantifying poly(ethylene glycol) coating on the surface of gold nanoparticles using High Performance Liquid Chromatography (HPLC) and Evaporative Light Scattering Detection (ELSD)*; the last technical issue on this draft standard was discussed at the subcommittee meeting and balloting should occur during the summer months.

During the executive committee meeting it was noted that new technical contacts are needed for several work items, including one to guide the revisions to E2535 *Standard Guide for Handling Unbound Engineered Nanoscale Particles in Occupational Settings* through balloting. In addition, there was discussion on establishing task groups to increase engagement with industry as well as potential student membership.

Upcoming meetings will be held in Atlanta (November 10, 2025 – November 11, 2025) and Dallas (May 4, 2026 – May 5, 2026).