

# U.S. Consumer Product Safety Commission

## MEETING LOG

**PRODUCT:** Nanotechnology

**SUBJECT:** ISO/TC 229 Nanotechnologies Working Group and U.S. TAG General Virtual Meetings to Discuss Current Projects and Potential New Work Item Proposals (NWIPs)

**LOCATION:** Teleconference

**DATE:** October 4-5, 2022

**ENTRY DATE:** October 6, 2022

**LOG ENTRY SOURCE:** Joanna Matheson (HSTR)

**COMMISSION ATTENDEES:** Isaac Mireku (LSC), Joanna Matheson (HSTR)

**NON-COMMISSION ATTENDEES:** Contact ANSI for a complete list.

### MEETING SUMMARY:

ISO Technical Committee 229 (ISO TC/229) 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 working groups address the development of standards and guides for terminology and nomenclature; metrology and instrumentation; test methodologies; modelling and simulations; and science-based health, safety, and environmental practices.

On Tuesday October 4, 2022, working groups of the US Technical Advisory Group (US TAG) to ISO Technical Committee 229 (ISO TC/229, Nanotechnology) met to continue the development of ISO/TC 229 projects in advance of the November 2022 international hybrid meeting, which will be held in London, England. The general meeting of the US TAG was held on Wednesday October 5, 2022, during which the lead for each US TAG ISO/TC 229 working group provided a summary of the Wednesday session discussions.

ISO TC/229 encourages proposals for new projects. A new proposal for a potential work item was supported by the US TAG to move forward for presentation at the November TC/229 meeting. This proposed project is to further work on nano-enabled sensors, specifically developing a method that quantifies the contribution from nanotechnology components, wherever they appear in the sensor. Staff will monitor this project should it be accepted as a potential work item in November. The US TAG voted to approve the change of deliverable for ISO/TR 5387 *Lung burden measurement of nanomaterials for inhalation toxicity studies to a Technical Specification* to a technical standard, and to extend the project limit date for ISO/TS 12901-1 *Occupational risk management applied to engineered nanomaterials Part 1: Principles and approaches*.

Two new proposals are expected from the international community, one is a method using MALDI mass spectrometry that monitors protein structural stability after exposure to nanomaterials, and the second is a method on performance evaluation of electrospun fabrics. No documents were provided on these proposals. Staff are monitoring the proposed project on characterizing and measuring nanocomposites used for insulation. No update was provided on a new project that is on characterizing photocurable polymer resins containing nanocomposites for use in additive manufacturing.

Staff remain interested in a project proposed during the November 2020 meetings for the development of a test method for the detection of nano-objects released from respiratory masks/media. However, some US TAG members expressed concern that the project is an efficiency test, of which there is an existing ASTM standard, and that the project leads lack a background in the subject matter. Staff will continue to monitor the development of this project. Potential subjects of future work included nanoplastics, 3D printers, characterization of emissions from consumer products and industrial processes, and 2D materials other than graphene.