

**U.S. Consumer Product Safety Commission  
LOG OF MEETING**

**SUBJECT: Meeting of ANSI Nanotechnology Standards Panel (NSP)**

**DATE OF MEETING: March 20, 2018**

**LOG ENTRY SOURCE: Joanna Matheson, HS**

**DATE OF LOG ENTRY: March 23, 2018**

**LOCATION: U.S. Department of Agriculture (Washington, DC)**

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

**NON-CPSC ATTENDEE(S): Heather Benko (ANSI), Shaun Clancy (Evonik Corp), Angela Hight-Walker (NIST), Debbie Kaiser (NIST), Alexandra Stanton (EPA), Kuan Tse Huang (AZTrong), Garth Graham (WL Gore & Associates), Jeffrey Draa (Grolltex), Charles Clifford (National Physical Laboratory), Martha Marrapese (Wiley Rein, LLP), Lu Liu (Celtig), Alan Hill (JA Hill Group), Harold Chase (NSF International), Scott Jacobson (Nanotech Energy), Fran Schroeder (ANSI), Kate Chalfin (ASTM), Terrance Barkan (Graphene Council), Zina Jarrahi Cinker (National Graphene Association), Angelos Kyrilidis (Cabot Corporation), Elena Polyakova (Graphene Laboratories), Ajit Jillavenkatesa (NIST), Anil Patri (FDA), and David Ensor (IEST). This may not represent everyone participating in the meetings, please contact Heather Benko at ANSI for the complete list.**

**SUMMARY OF MEETING:** On Tuesday, March 20, 2018, the ANSI Nanotechnology Standards Panel held a meeting to discuss standardization needs in the graphene community. Opening remarks were given by Shaun Clancy and Ajit Jillavenkatesa, ANSI-NSPO co-chairs. Heather Benko provided an overview to the voluntary consensus standards process. Charles Clifford from the UK National Physics Laboratory (NPL) provided an overview on work carried out by ISO TC/229, highlighting current projects that relate to graphene. In addition he presented on the recently completed Good Practice Guide for Graphene produced by the NPL. Shaun Clancy reviewed the discussions and observations from the February 28, 2017 ANSI-NSP meeting on graphene. Martha Marrapese gave a presentation on how standards for graphene nanomaterials could support TSCA compliance, beginning with a brief overview of the TSCA nanomaterial reporting rule. Kate Chalfin and Debbie Kaiser briefly discussed ASTM activities that relate to graphene nanomaterials. Shaun Clancy and Ajit Jillavenkatesa reviewed existing ISO documents and queried the meeting participants as to what existing standard documents are applicable and could be useful to the graphene community. Anil Patri presented results from FDA studies on the dispersion of graphene material for biological studies. Zina Jarrahi Cinker discussed her association's success in connecting with stakeholders and there are reporting challenges for end users due to product differences from different suppliers. The recent ISO publication on terminology for graphene nanomaterials has been key for having stakeholders speak the same language. Stakeholder needs mentioned included education on what standards are out there, and a need for clear distinction between types of graphene nanomaterials (e.g., flake, film, single layer). Terrance Barkan from The Graphene Council provided the results from their recent survey of stakeholders on the various applications in which graphene is used and the most relevant material characteristics. A list of potential projects was prepared so that it could be shared with stakeholders for priority setting.