C29 Panel Discussion: A Proposed ASTM F-13/E-30 Standard Guideline for Best Forensic Practices in Walkway-Safety Tribometry

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Attending this presentation, forensic practitioners will learn about the latest developments in ASTM standards that will impact upon WalkwaySafety Tribometry tests and, importantly, will be able to present comments and suggestions directly to those involved it the development of the standard.

This presentation will impact the forensic community and/or humanity by demonstrating how fall accidents are the second most significant source of accidental injury costs (direct, mortality, and morbidity) overall, and the largest generator of accidental mortality amongst the elderly. Forensic Engineers and scientists must access the safety of facilities and situations, often by tribometfic tests. It is essential that forensic engineers and scientists practicing in that area understand the changes in standards that are in process. Attending this panel discussion will bring practitioners up to date in this area.

Background: The four authors constitute the Task Group that is responsible for the preliminary work on this proposed standard. The discussion will start with a brief overview of the ASTM StandardsDevelopment Process, emphasizing the voluntary consensus nature of that process, and the requirement for substantial agreement among the various interest blocks. The method that the ASTM utilizes to ensure participation by all interested parties will be discussed. The process of standards development, starting with a Task Group, proceeding to a subcommittee, to a committee, and thence, to the ASTM as a whole, will be discussed. The voting process will be discussed, as well as the ability of a persuasive negative vote to send the standard back for modification. The scopes of the E30 and F-13 Committees will be discussed as a means to show why this standard may overlap the two committees. The direction of F-13's tribometric standards, towards non-proprietary test methods, will be discussed, along with the significant implications the non-proprietary standards presently in development have for the forensic practitioner. Finally, the authors discuss how you, if you are interested, can participate in the process of the development of this standard.

Discussion: The Title and Scope of the proposed standard in the present, preliminary incarnation will be discussed. The ambit of the proposed standard will be discussed, and comments and suggestions relative to the coverage of the proposed standards will be solicited from the audience of Forensic Engineers. Among the specific topics to be discussed are:

1. what does a tribometric test represent;
2. what constitutes a meaningful test;
3. how is the question of test and measurement error meaningfully addressed;
4. what constitutes a meaningful tribometric test design, especially with respect to test-site selection and test sample size;
5. how can a practitioner ensure that tests conducted have validity;
6. how should tribometric-test results be presented, i.e., how to properly factor test uncertainty into the result;
7. what can be said about a test result and its connection to pedestrian safety (the Required-Friction/Available-Friction) paradigm; and
8. what does Reasonable Engineering/Scientific Certainty mean in the context of tribometric testing.

Walkway-Safety, Slip and Fall, Tribometry

 ** Presenting Author*