



Falex Litigation Technical Investigations Consumer Product Safety Commission Issues and Recalls

Falex Litigation Technical Investigations conducts accident and materials and wear failure analysis investigations for insurers and litigators. Our cases typically involve the performance of materials, materials compatibility, friction and wear, lubrication, the design process, and issues involving installation, maintenance, and adherence to codes and standards. We also offer consulting services to support companies, insurers, and attorneys dealing with Consumer Product Safety Commission issues and recalls.

Falex Litigation Technical Investigations is experienced with supporting companies, insurers, and attorneys with developing the data they need in dealing with the Consumer Product Safety Commission (CPSC) and with recalls. CPSC issues and recalls require quick response and innovative, but reliable approaches to testing, and we are uniquely qualified to meet this need.

CPSC issues and recalls often require testing that is different than quality control tests typically performed by companies. Our physical science-based investigative approach is ideally suited to this need because the physical sciences (physics and chemistry) are the basis for test methods and test instruments. Our physical science backgrounds enable us to understand a wide range of issues and to develop practical and reliable, but non-standard, tests. We also are highly experienced with statistics and modeling.

Another unique resource at our disposal is the equipment and engineering design capability of the Falex Corporation, of which we are a division, focused on serving insurers and litigators. The Falex Corporation has more than 90 years of history developing test methods and designing industry leading test instruments. Falex's core competencies include motion control, motors, pumps, regulatory control systems, and supervisory control and data acquisition systems. This allows the staff of Falex Litigation Technical Investigations to quickly and reliably implement the non-standard tests that are needed.

Another core capability of Falex Litigation Technical Investigations that is rare and especially relevant today is electrochemistry. This means that we are able to provide the insight companies, insurers, and litigators need for issues related to batteries of all types.

Examples of Falex Litigation Technical Investigations dealing with CPSC issues and recalls is provided by the following three examples.

Matches - We assisted a company with determining if matches that were supplied as part of a kit could ignite unintentionally. To do this, we first tested the matches to establish the force and length of strike needed to cause ignition. We also tested if any other



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components of the kit could easily ignite the matches. We then instrumented the kit with an accelerometer and established the nature and magnitude of the motions and forces the kit experienced in everyday use. We then used that information to design an instrumented machine to subject the kit to a large number of simulated usage cycles that would also detect if the matches ignited unintentionally.

Li-Ion Batteries - We assisted a company with determining if it was safe to ship lithium-ion batteries that were being recalled. To do this, we assessed the implications of the reasons for the recall to establish the likely state of the battery, and we then used our electrochemical knowledge to determine the issues that may arise.

Consumer Product Fire - We assisted a company with determining the cause of a fire with a consumer product. We were able to examine similar units, and we also instrumented them to measure the electric current and temperature at various locations. This allowed us to identify a wire crimp as the source of the fire.

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Falex Litigation Technical Investigations was formed to provide litigators, insurers, and corporate counsel with expert witness consulting and scientific investigations that are informed by core competencies in the physical sciences, materials performance, and tribology - the science of friction, wear, and lubrication - to provide better outcomes at lower cost with intellectual property disputes, product failures, process incidents, accident investigations, and Consumer Product Safety Commission recalls and issues.