



Falex Litigation Technical Investigations Insurance Claims and Litigation

Falex Litigation Technical Investigations conducts accident and 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 often investigate incidents involving industrial and chemical processes and equipment, consumer products, aviation incidents, and sensors, controls, and measurement systems, to name a few. For example, we investigate corrosion of aircraft and industrial equipment; the performance of lubricants, wear-resistant coatings, paint and protective coatings, and building products; the failure of composite materials and adhesives used in aircraft and industrial equipment; the volatility and evaporation of fluids; the permeability and transport of moisture in cavities and materials; the properties of aggregates and concrete; the absorption of moisture and expansion of wood and engineered wood products; cracking and failure of asphalt and concrete; the chemical conditions that exist in industrial process equipment and the performance of materials exposed to these conditions; and the cause of odor and flammability of spray polyurethane foam.

It is common for there to be uncertainty and issues involving the appropriateness of the selection of a material, material compatibility, the conditions to which the material was subjected, the adequacy of the design, the adherence to codes and standards, and the adequacy of installation methods and of maintenance frequency and procedures. For example, odor in spray polyurethane foam can originate from the chemical composition of the resins and polyols used to make the foam, and from the installation of the foam because spraying of the foam is a chemical process.

It is not enough to be an expert in a narrow, technical domain. The incidents we investigate are often characterized by being multidisciplinary in scope, complex, and involving uncertainty and missing information. We often deal with materials that are no longer made or that are no longer available for testing, that have been used in a non-conventional manner or environment, and with situations involving poor and incomplete documentation. For example, we have estimated the volatility of oils that are no longer made, but are still in use; we have estimated the expansion and contraction of engineered flooring installed in different seasons; and we have estimated the water content of aggregates in foundations that were already removed, and not available for testing.

Our approach is superior because we have extensive training and experience in the physical sciences. Physics and chemistry, especially the combination of the two in the discipline of physical chemistry, are the foundation of materials science and mechanical engineering, and of the methods used to measure and model the performance of materials. For example, we have established the cause of failures involving asphalt and



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concrete where performance involves chemical reactions, mechanical properties, packing of aggregates, and environmental conditions. We have also established the cause of failures and the performance of materials in mechanical systems involving lubricated rubbing contact, the understanding of which requires chemistry and mechanics.

We conduct our investigations using the scientific method, which is the standard adopted by the Supreme Court, and the approach of academia and industry to R&D. Scientific investigations related to insurance claims and litigation, be they large or small, are about asking questions that illuminate the key issues and answering them clearly in a way that is authoritative and compelling. Our strong analytical skills are essential to overcoming complexity and uncertainty, and filling in the gaps due to missing information. For example, we established the cause of corrosion in chemical process equipment where several metallurgists could only identify the type of corrosion. Our product failure investigations often change the course of litigation as they did here.

We are easy to work with. We accommodate the demands imposed by busy litigator schedules, and the desire of those paying for the investigation to wait as long as possible before starting a costly investigation. We have backgrounds as business decision makers, so we understand the need to provide you with objective, accurate, and actionable insight, and top-notch project management to meet deadlines and contain costs.

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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.