



Professional Analysis and Consulting, Inc. is dedicated to meeting the engineering, scientific, and other technical consulting needs of law firms, insurance companies, and manufacturers throughout the U.S. and the world. We have extensive professional experience in various disciplines to assess physical, laboratory, and documentary evidence, and to provide appropriate analysis and testing. From the beginning of any litigation project, our approach is to work under the assumption that the matter will be presented for trial. We strive to solve complex and challenging problems with integrity by applying our skills and expertise to discover the root cause of failures.

The individual and combined professional experience of our experts offers a diverse approach to any project. Our experienced and competent support staff is dedicated to providing timely, confidential, and personal assistance. This full-service approach presents a cost-effective advantage to handle even the largest projects with excellence.

Meet Our Team at Professional Analysis and Consulting, Inc.

Roch J. Shipley, Ph.D., FASM, P.E. – Principal Engineer, Materials/Metallurgical



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Dr. Roch Shipley is the Principal Engineer and President of Professional Analysis and Consulting, Inc. He has been consulting in failure analysis for over twenty-five years. In 2004, he was named a Fellow of ASM International and remains actively involved in multiple ASM committees including Failure Analysis, Finance, and Investment. He also serves as Treasurer of the ASM Materials Education Foundation. Most significantly, Dr. Shipley co-edited the ASM Handbook, Volume 11, Failure Analysis and Prevention, a best-selling reference in failure analysis. He performs engineering investigations and failure analyses from a materials engineering perspective. His evaluations generally consider design, manufacturing, materials, and operational factors. He specializes in complex issues involving multiple disciplines and/or accident reconstruction. He has experience with both ferrous and non-ferrous alloys, including aluminum, titanium, and nickel-base superalloys. Dr. Shipley is licensed by examination as a Professional Engineer in his home state of Illinois, as well as other states. He has testified in both State and Federal Courts.

***Michael G. Koehler, Ph.D. – Principal Scientist,
Materials/Chemistry***



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Dr. Koehler obtained his Ph.D. in Medicinal Chemistry from the University of Illinois and completed his post-doctoral studies in Materials Science with a focus on polymers at the University of Illinois. He performs investigations and failure analysis from a chemistry and materials science perspective. His experience crosses a broad range of chemicals and materials including polymers and plastics, coatings, fuels, catalyst, metals, refrigerants, filtration media, membranes and pharmaceuticals. His technical expertise involves the complete life cycle of products including the design, manufacturing, transportation, application, toxicity, failure analysis and materials disposal. His application experiences include, materials failure, pharmaceuticals, air quality, fuels, adhesive, paints and coatings, and environmental catalyst. He has extensive experience in Six Sigma Quality including as a master trainer for Black and Green Belt scientists and engineers, Design for Six Sigma, Design for the Environment, Design for Manufacturing, and Lean Six Sigma. Dr. Koehler is a member of the American Chemical Society (ACS), Society of Plastics Engineering, SAE International, Society of Manufacturing Engineers, American Association for the Advancement of Science, and the American Society for Heating Refrigeration and Air Conditioning Engineers. He has served as Director and Chair of the ACS Chicago Section, and serves on the ACS Committee on Chemical Safety.

Timothy M. Hicks, P.E. - Principal Engineer, Mechanical



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Mr. Hicks has over thirty years of experience designing, developing, analyzing and overseeing the manufacturing of various products and systems in many diverse industries. He performs investigations, design review, and failure analysis from a mechanical engineering perspective. His projects have involved accident investigation and reconstruction, product liability, intellectual property, design analysis, manufacturing, Crash Data Recovery “black box”, fire cause and origin, testing, and project management. His vehicle experience includes commercial vehicles, automobiles, RVs, motorcycles, buses, railroad, agricultural, and construction equipment. His non-vehicle related projects have involved medical, athletic, and wheelchair accessibility equipment, forklifts, elevators, wind energy systems, lawn equipment, bicycles, plumbing, consumer products, and other mechanical systems. Mr. Hicks is Chairman of the Chicago Section for the Society of Automotive Engineers (SAE), a member of the Crash Data Collection Standards Committee for SAE International, and is a member of the National Safety Council (NSC) Transportation Division. He is a member of the American Society of Mechanical Engineers (ASME) and the National Society of Professional Engineers (NSPE). Mr. Hicks is licensed by examination as a Professional Engineer and holds licenses in multiple states.

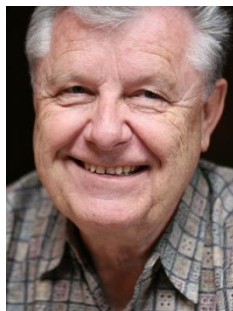
***Johannes C. Laun, P.E. IAAI-CFI, MIFireE – Senior
Engineer, Fire/Electrical***



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Mr. Laun is an electrical engineer, physicist, and Certified Fire Investigator (IAAI-CFI) trained in arson investigation techniques. He has extensive experience with electrical power distribution systems, switchgear, transformers, circuit breakers and cabling for all voltage levels and plant sizes. He has conducted numerous investigations concerning electric shock/electrocutions and arc flash incidents. He has investigated fires and explosions of chemical facilities, residential-commercial-industrial facilities, passenger vehicles and trucks, and heavy equipment. Additional experience involves communications and antenna systems, electronic materials, testing, measurement and analytical techniques. He has investigated a wide variety of electrical incidents involving vehicles including cars, trucks, and heavy equipment. Mr. Laun designs and executes in-field tests, conducts detailed research, and performs examinations applying theoretical calculations. Mr. Laun is licensed by examination as a Professional Engineer and holds licenses in five states.

Glen K. Leckie, P.E. – Senior Engineer, Civil / Structural



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Mr. Leckie has over thirty-five years of experience in the civil/structural engineering environment, and has been responsible for the design of over 2,000 projects, including 250-plus investigations in Canada, the USA, and Far East. More recently in the last 15 years responsible for over 1,200 investigations involving commercial, institutional, industrial, and residential type buildings and civil work. Investigations have involved design and construction failures including; roof structure and lateral collapses, restoration and renovation of older structures, foundation issues, design deficiencies, basement wall and slab cracking, wall cladding attachment failure (including glazing), beam and slab failure or adverse deflection, and mechanical equipment and piping investigations. He also provides expertise as to design and failure of equipment including industrial lifting devises, bridge cranes, high reach cranes, booms and telescopic cranes and other technology.

George J. Theus, Ph.D., FNACE, FASM, P.E. – Senior Engineer, Materials/Metallurgical



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Dr. Theus has over forty years of experience performing engineering and forensic investigations involving multiple types of corrosion and other material problems. He has earned an international reputation in corrosion control and water chemistry. He has been a member of EPRI's expert panel regarding materials issues on nuclear power plants. His projects have involved utility boilers (nuclear and coal), industrial boilers, turbines, scrubbers, pressure vessels, petrochemical processes and storage, natural gas transmission systems, alternate energy sources, and railroad cars. His technical expertise includes heat treatment of metals, welding, materials testing, forging and machining, advanced electrochemical techniques, production tubing (oil/gas) corrosion, mechanical metallurgy, fracture mechanics, metal fatigue, corrosion fatigue, and failure analysis. Dr. Theus has been honored with Fellowships by the National Association of Corrosion Engineers (2003) and ASM International (2012). He is also the recipient of the ASM International Honorary Membership Award and was the Alpha Sigma Mu lecturer in 2009. He is a Registered Licensed Professional Engineer by examination and has testified in both State and Federal Courts.

John A. O'Neill, FAA A&P/IA – Senior Aviation Consultant



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Mr. O'Neill brings over thirty-five years of experience with BP Amoco during which he assumed increasing levels of responsibility for BP's aviation activities worldwide. His experience ranges from fixed wing corporate jets to helicopters serving off shore platforms. He consults in all areas of aviation maintenance, operations, and safety. He provided aviation oversight for BP's aviation vendors, conducted operator reviews, and has participated in accident investigations. He continues to serve on various industry committees. Mr. O'Neill is a licensed Federal Aviation Administration (FAA) Airframe and Power Plant mechanic, with an Inspection Authorization (A&P/IA), holds an FAA Airman Certification for Remote Pilots for Small Unmanned Aircraft Systems, and is a licensed private pilot.

Louis J. DeFilippi, Ph.D. – Senior Scientist, Chemistry



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Dr. DeFilippi performs investigations and analyses from a chemistry, biochemistry, and microbiology standpoint. He combines these scientific approaches and analyses with an understanding of OSHA, EPA and USDA regulations, as well as environmental processes, to draw his conclusions. Dr. DeFilippi specializes in a number of diverse areas, including regulatory compliance, patent infringement, safe operation of chemical, biochemical (enzymatic) and microbiological (fermentative) process and ammonia refrigeration, groundwater contamination and bioremediation. He is experienced in worker safety, accident prevention, and training on an industrial scale. He is skilled in laboratory research, analysis, measurements and data workup.

John Kidd – Director, Field Services



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Mr. Kidd has extensive accident investigation experience focusing on field inspections, scene documentation and laboratory inspection coordination. Using state of the art measurement and laser scanning technology, fast, accurate, and detailed scene measurements are collected. He holds an FAA Airman Certification for Remote Pilots for Small Unmanned Aircraft Systems and is also an FAA licensed private pilot. In addition to laser scanning and total station, he incorporates the UAS technology into investigations, including photographic and video collection, editing, and measurement verification. He has in-depth experience in firearm safety, firearm storage, and operational procedures, coordinating testing for California Department of Justice standards and requirements. He also directs our evidence collection, documentation, storage and management.

Charles A. Ogborn – Mechanical / Agricultural Consultant



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Charles Ogborn specializes in mechanical and agricultural Engineering. He has hands-on operational experience in farming gained from his family's farm. His knowledge of agriculture equipment, includes tractors, combines, grain storage and drying systems. Mr. Ogborn is responsible for providing farm infrastructure and crop loss evaluations and assessments, identification of plant operation / processing issues, and conducts OSHA and FDA regulation evaluations. He provides engineering and technical assistance in failure analysis, farm machinery damage and related injuries, accident reconstruction, fires, and testing. He conducts fire investigations on various types of mechanical equipment and grain storage systems. He conducts site inspections, laboratory testing, system instrumentation, and automated tests.