

NAFE Sunday Schedule (January 18, 2026)

Steven Batzer, PE (NAFE #677F)

Owner, Batzer Engineering

Time: 8 to 9 AM

Title: From the Front Lines of Forensic Engineering

Abstract: Masters of Science student Steve Batzer was thoroughly impressed by one of his professors at the GMI Engineering and Management Institute, Dr. David Roy Clark, PE. Dr. Clark did not simply teach Industrial Health and Safety, he made it relevant by incorporating seemingly endless “war stories” from his side forensic consulting practice that insightfully illustrated the points he was making. Students learn and are entertained by these parable-like explanations of succinct engineering principles. After the completion of his studies at the Michigan Technological University, now Doctor of Mechanical Engineering Steve Batzer, PE, secured his first forensic engineering case. That was 25 years ago, and this lecture presents different case studies to illustrate thematic approaches, strategies, and aspects of forensic engineering, exactly as Dr. Clark did in the early 1990s.



Steve Batzer is a mechanical forensic engineer who consults with clients regarding patent infringement, firearms, and the forensic analysis of accidents and product failures. He has taught at five universities, served as a commissioned officer of the U.S. Army, and has worked as a manufacturing engineer in the Michigan automotive industry. He has testified at more than 50 trials and published more than 70 peer-reviewed engineering papers. Dr. Batzer is also a member the Society of Automotive Engineers, the American Society of Mechanical Engineers, and is a fellow of the National Academy of Forensic Engineers. He is a Vice President of the Michigan Society of Professional Engineers and encourages all engineers to be licensed. He earned his BS in mechanical engineering from Michigan Tech, an MS degree in manufacturing systems engineering from the GMI Engineering and Management Institute in Flint, Michigan, and a Ph.D. in Mechanical Engineering, again from Michigan Tech. Dr. Batzer lives with his wife in a log cabin in the Pere Marquette forest near Fife Lake, Michigan.

Lori Cox, PE (NAFE #1302S)

Regional Director, Engineering Design & Testing Corp. (EDT)

Time: 9 to 10 AM

Title: The Hidden Load: Mental Health Challenges in Forensic Engineering

Abstract: Forensic engineering demands precision, composure, and objectivity in the face of conflict, loss, and high stakes. Yet behind every failure analysis, deposition, or courtroom testimony lies a professional navigating chronic stressors that few outside the discipline truly understand. The adversarial nature of litigation, ethical pressures of expert testimony, exposure to tragedy and human loss, and the constant demand for technical perfection can exact a profound psychological toll on engineers in this field.

This presentation explores the unique mental health challenges faced by forensic engineers through the lenses of occupational psychology, ethics, and professional culture. Topics include compassion fatigue and secondary trauma associated with investigations involving injury or death; burnout linked to long travel schedules, report deadlines, and adversarial scrutiny; imposter syndrome in expert witness work; and the isolating effects of confidentiality and client privilege constraints. Real-world case examples illustrate how these stressors manifest in professional practice and affect decision-making, communication, and overall well-being.

Participants will gain awareness of the hidden emotional costs of forensic engineering, learn to recognize early warning signs of mental strain, and explore evidence-based strategies for resilience and self-care. The session also emphasizes the importance of fostering a culture of peer support, mentorship, and mental health literacy within technical organizations. By bringing these conversations into the open, we can help ensure that those who investigate failures do not quietly endure their own.



Lori Cox is a licensed Professional Engineer with over 25 years of experience in forensic engineering, specializing in structural failures, construction defects, premises liability, and construction-related injury investigations. She is licensed in 35 states and currently serves as Regional Director of Engineering Design & Testing Corp. (EDT). As a Senior Fellow and Board Certified Diplomat in Forensic Engineering, and through her service in the ASTM committee on Forensic Engineering and ASCE on the Wildfire Resiliency Standards Committee, she is dedicated to advancing the field through thorough investigations and serving as an expert witness, all driven by a commitment to excellence and a passion for technical engineering emergency response operations. Her work spans commercial, residential, municipal, and industrial sectors, and she has provided expert opinions in numerous litigation matters in both state and federal courts. Lori brings a strong understanding of the legal landscape to her technical investigations. She is known for her analytical rigor, clear communication, and commitment to professional integrity—qualities that continue to define her leadership in the forensic engineering field.

Carlos Morales (NAFE #1380)

Civil Structural Engineer, G.M. Selby, Inc

Gerald Zadikoff, PE (NAFE #751M)

CEO, G.M. Selby, Inc

Time: 10:15 to 11:15 AM

Title: Seawall Collapse and Mitigation

Abstract: This paper presents a forensic engineering analysis of a partial seawall failure at a condominium complex comprising two eight-story buildings, a clubhouse, and a pool deck. Initial assessments identified inadequate repairs by an external firm; subsequently, the seawall collapsed during the design phase for its replacement due to multiple contributing factors, including insufficient maintenance, flawed repair assumptions, and adverse environmental conditions. The study reviews immediate mitigation strategies and post-collapse evaluations, highlighting the impact of external loads and inherent structural deficiencies. The findings emphasize the essential role of forensic engineering in promoting the resilience of coastal infrastructure.



Carlos Morales works as a Civil Structural Engineer for G.M. Selby, Inc a professional consulting firm specialized in integrating disciplines and sciences to provide custom services for their clients.

Gerald Zadikoff is a corporate executive with broad experience in all aspects of Infrastructure design and development including Telecommunications, engineering design and construction management, Coastal and Ocean engineering, Structural engineering, Civil/Environmental engineering and Forensic engineering. He has direct experience with multiple USA markets as well as many emerging markets worldwide. Gerald has the ability to provide funding sources for specific infrastructure operations. His success has largely been with early-stage startup operations (as owner/operator or consultant/exec) in emerging markets as well as all other infrastructure project completions. Gerald was chosen to the select ASCE committee as a member of the Industry Leadership Council. Member of NAFE (National Academy of Forensic Engineers), specializes in structural damage assessments, Coastal structures and Marine related accidents. LEED Certified. He is a Voting Committee Member of ASTM committee on Forensic Engineering and on ASTM Committee on Structures,(Building Envelope). Current Board Member of the Miami-Dade County Office of International Trade and Development. He served 3 years as a Board Member of the SAAC at EXIM Bank (USA). Expert Witness with numerous successful cases in Federal Court and State court relating to high rise damage and construction deficiency as well as other infrastructure and marine related projects.



Rich Kovarsky, PE, DFE, CFI, CFEI (NAFE #1209S)

President/Senior Forensic Engineer, Pyro-Technical Investigations

Time: 11:15 AM to 12:15 PM

Title: Water Losses and NFPA 921

Abstract: In 30 years of investigative experience with fire and water losses, I have found that when investigating fire losses, there are many books, guides and other resources on how to properly conduct a fire investigation. Documents such as NFPA 921, “Guide to Fire and Explosion Investigation” and books by Lenitini and DeHaan are all useful references. When it comes to the investigation of water losses there is no comparable body of literature, that I am aware of, that provides guidance on how to properly conduct such an investigation. This results in a case where procedures that would be considered unacceptable during a fire investigation are routinely used and considered acceptable when investigating a water loss. While NFPA 921 specifically addresses fire losses, I believe that the investigative principles in this document are equally applicable to water losses.



As owner and principal engineer of Pyro-Technical Investigations, Rich Kovarsky's clients benefit from his 40+ years of engineering experience (25+ years specifically in forensic engineering and consulting). Throughout his career, he's conducted and/or supervised 5500+ forensic investigations and testified 250+ times (trial and deposition) in both federal and state courts. He is a Registered Professional Engineer in 17 U.S. States and a Certified Fire and Explosion Investigator.

Bart Kemper, PE (NAFE #965F)

Principal Engineer, Kemper Engineering Services

Time: 1:15 to 3:15 PM & 3:30 to 4:30 PM

Title: Forensic Engineering Panel Discussion on the TITAN Disaster

Abstract: Bart Kemper as lead, with co-hosts for each one-hour part

Full panel:

- Bart Kemper: Team lead, structural analysis, acrylics, VVUQ
- Tom Whalen: USCG Investigator
- Krista Kemper: Charter member of the World Submarine Organization. Submarine industry issues, review of contracts other business issues with OceanGate
- William Emblom: Structural analysis
- Mitch Maifeld: Electrical engineering and computers
- Alexis San Miguel: Life support and human factors
- Mike Gordon: Peer Review.

Hour 1: Co-Host LCDR Tom Whalen, “USCG and Maritime Investigation” – sets the stage with what the USCG does (instead of what everyone thinks they do), their responsibilities in SAR, and what the MBI’s role is and is not. This part will focus on events prior to the expedition, during the expedition, and the recovery operations.

Hour 2: Dr. William Emblom, PhD – “The technical investigation”. This is where much of the panel gets to chime in with the KES’s team efforts. This part will include dialogue and discussion about technical matters, and include Mitch to talk about EE, Alexis for life support.

Hour 3: Mike Gordon, P.E. – “The long-term impact” Mike has worked a number of major forensic investigations, most notably the COLUMBIA shuttle disaster and gave testimony to Congress. Mike will use this background to make observations and post questions to the panel about the long term implications to the industry, USCG future changes, etc.



Bart Kemper is a Louisiana-based mechanical engineer with 30 years of industrial and forensic experience with a civil background through the U.S. Army Corps of Engineers, where he retired as a Lt. Colonel. Kemper’s expertise in pressure vessels, piping, marine, and subsea engineering, plastics, life-safety applications, medical devices, human factors, and numerical modeling led to his membership in the ASME Codes and Standards Committee for Pressure Vessels for Human Occupancy and its various subcommittees. He has used computer simulations throughout his civilian and military engineering career and has successfully incorporated it in his forensic work. Kemper is a past NAFE vice president, former Editor-In-Chief of the *Journal of the National Academy of Forensic Engineers*, and is current Editor Emeritus of the *Journal*.