

Todd A. Springer, P.E., CXLT
Augspurger Komm Engineering, Inc.
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EDUCATION

Human Factors Certificate, Penn State University, Fall, 2023
Bachelor of Science, Mechanical Engineering, Arizona State University, 2006

EXPERIENCE

Mr. Springer has over 15 years' experience in forensic engineering and failure analysis investigations, with an emphasis on mechanical systems and equipment, including component and material failures. His experience further includes the evaluation of building envelope construction and performance with a focus on water intrusion and storm damage.

Mr. Springer also provides expert consulting and testimony regarding premises safety, incorporating human factors and applying principles of safety engineering. Investigations in these areas rely on his knowledge of building code and ADA requirements, as well as standards of care in a variety of applications.

PROFESSIONAL REGISTRATION

State of Arizona, Mechanical Engineer, #54476, January 2013

WORK EXPERIENCE

2008 – Present Augspurger Komm Engineering, Inc.
2006 – 2007 East Valley Glass, Installation Foreman

PROFESSIONAL AFFILIATIONS

Human Factors & Ergonomics Society, Student
Board of Technical Registration Enforcement Advisory Committee, Member
American Society of Mechanical Engineers, Member
National Academy of Forensic Engineers, Correspondent
ASM International, Member
ASTM International, Member
Member of Committee F13, Pedestrian/Walkway Safety and Footwear

CONTINUING EDUCATION

BlazeMaster Fire Protection Systems Online Installation Training Program, July 7, 2021
How to determine the root cause and prevent failures with SEM/EDS, Webinar, June 9, 2021
NFPA 25 (2017) Training through NFPA, May 2021

CONTINUING EDUCATION – Continued

AIM Institute

Plastic Materials, Injection Molding, Mold Design, Part Design & Simulation Analysis, Dec 2020
ASM Practical Fractography, Beachwood, OH, February 4-5, 2020
2019 International Code Council Annual Conference, October 21-22, 2019
Waterhammer Transients and Pipe Forces – What are they and how to simulate and analyze your system to mitigate damage, Webinar, September 17, 2019
Excel Tribometers, LLC, CXLT Certification Program,
San Diego, CA, June 26, 2018
Philadelphia, PA, May 5, 2015
University College of Syracuse University, Americans with Disabilities, ADA Basics – Public,
December 5, 2017
International Association of Arson Investigators, Inc.
Fire/Arson Investigation I Seminar; Mesa, AZ, Sept 23-27, 2013
Fire/Arson Investigation II Seminar; Prescott, AZ, April 13-17, 2015
Fire/Arson Investigation III Seminar, Flagstaff, AZ, October 11-16, 2015
Fire/Arson Investigation IV Seminar, Mesa, AZ, April 11-15, 2016
Commercial Kitchen Fires Course, Phoenix, AZ, December 7-8, 2016
921 Update Class – 2014 Edition, May 15, 2014
2013 Fuel Gas Fire Seminar, March 18, 2013
Fire Findings Seminar, “Investigation of Gas and Electric Appliance Fires,” Benton Harbor, MI,
April 16-19, 2013
National Association of Subrogation Professionals (NASP), Residential Electrical Fires Online,
July 16, 2013
NFPA Seminar “Fire and Explosion Investigations,” Ft. Lauderdale, FL, June 20-21, 2011
Liability Issues for Expert Witnesses (TASA) Online, August 6, 2013
Strategic Considerations Regarding Expert Reports-Practical Considerations and New Rule 26
Amendments, Web Seminar, NASP, February 29, 2012
Why Plastics Fail Web Seminar, NASP, January 24, 2012
ASM International “Metallurgy for the Non-Metallurgist Conference,” Novelty, OH, January 11-15, 2010
ARC-CSI 8th Annual Crash Conference, Las Vegas, NV, June 1-4, 2009
The TASA Group Presents: “The Life of a Lawsuit,” Web Seminar, April 21, 2009
Solid Works Essentials, Digital Dimensions, Phoenix, AZ, February 2-6, 2009
Forensic Photography Techniques, Michael Wilson, Phoenix, AZ, December 18, 2008
Machine Guarding, National Safety Council, September 22, 2008

PUBLICATIONS

Springer, Todd A. (2015) Forensic Evaluations of Built-up Roofing Storm Damage Claims and the Appraisal Process. *Journal of the National Academy of Forensic Engineers*, 32(2), 33-40

Eric A. Beebe, E.I.T., Kevin W. Hollander, Ph.D., David S. Komm, P.E., and Todd A. Springer, E.I.T., “Non-Destructive Testing Methods for Examination of Failed Plastic Parts,” ASME Early Technical Conference, Arlington, TX, April 2009

Peer reviewer for NAFE journal 2020 - 2024

PRESENTATIONS

Expert Testing in Litigation, State Bar of Arizona, Southern Region, June 23, 2017

Forensic Evaluations of Storm Damage Claims and the Appraisal Process. National Academy of Forensic Engineers, Summer Meeting, Seattle, WA, July 17-19, 2015

Life Skills and Career Opportunities. Behavioral Intervention Class, Connolly Middle School, Tempe, AZ, May 19, 2014

It Needs to be Repaired, but is it Storm Damage? Arizona Insurance Claims Association, May 15, 2014

CERTIFICATIONS

U.S. Department of Labor, Mine Safety and Health Administration Training Course, 2010, 2011, 2012, 2013, 2014.

Certified XL Tribometrist

DESIGN PROJECTS

Natatorium Redesign

Evaluation of existing, underperforming mechanical system and space layout at an indoor swim school. Redesign of space, air distribution system and envelope insulation to meet performance specifications and mitigate damage to building systems.

Redesign/Modifications of a Bucyrus-Erie 60-L Water Well Drilling and Servicing Rig

Alteration of mast raising and lowering system from cable and winch to hydraulic operation and evaluation of existing equipment in varying configurations to determine loading and stresses on components and alterations in system performance.

Car Cooling Device

Analysis of heat transfer rates, cooling capacity, cooling capacity requirements, and the implementation of various methods and devices for rapid heat transfer.

Commissioning of a steam generator for Royden Construction.

Review and evaluation of gas, air, water, and electrical subsystems, including the management of such systems through relay and recording profile controllers. Evaluation of component quality, compatibility and conformance with applicable codes. Application of appropriate personal protective equipment for safe use of machine.

Water Wall Redesign

Analysis of flow patterns, flow rates, and design around existing geometry

Redesign of High Temperature Furnace for the Department of Energy

Determination of critical stress points, and bending tolerances. Thermal analysis of heat exchange rates and thermal expansion. Design of long term, precise loading mechanism. Evaluation of creep characteristics.