



Advanced Engineering Investigations

JOHN L. SCHUMACHER, MChE, PE, CFI, CFPS

Mr. Schumacher has been a consulting and forensic engineer since 1992. He is a licensed chemical engineer and an IAAI Certified Fire Investigator who specializes in determining the origin and cause of fires, flash fires, and explosions; investigating accidents in the chemical process and oil & gas industries; analyzing flammable and combustible liquid, combustible dust, reactive chemical, self-heating, and chemical-related accidents; and investigating carbon monoxide incidents. Additionally, he is a NFPA Certified Fire Protection Specialist. Mr. Schumacher has provided expert testimony in a number of states and is the President of AEI Corporation.



EDUCATION & LICENSURE

Bachelor of Science, Chemical Engineering, University of Illinois, Urbana-Champaign, 1992

Master of Chemical Engineering, Illinois Institute of Technology, 1996

Graduate level courses, Fire Dynamics and Fire Suppression Systems, Worcester Polytechnic Institute

Licensed Professional Engineer, Arizona, Arkansas, California, Colorado, Illinois (1997), Mississippi, New Mexico, and North Carolina

International Association of Arson Investigators – Certified Fire Investigator (CFI), 2003

National Fire Protection Association - Certified Fire Protection Specialist (CFPS), 2011

Certified in Hazardous Waste Operations and Emergency Response (HAZWOPER) OSHA 29 CFR 1910.120(e) and (q)

Certified in DOT Haz-Mat Transportation, 49 CFR 172, 704 (1-4)

National Academy of Forensic Engineers – Board Certified in Forensic Engineering, Senior Member, 2018

WORK HISTORY

President & Principal Engineer, *AEI Corporation*, 2021 to Present

Vice President & Principal Engineer, *AEI Corporation*, 2006 to 2021

Project Engineer, *AEI Corporation*, 2005 to 2006

Project Engineer, *Western Engineering & Research Corporation*, 1998 to 2005

Staff Chemical Engineer, *Packer Engineering, Inc.*, 1992 to 1998

EXPERIENCE

Mr. Schumacher has investigated the origin and cause of hundreds of fires, flash fires, and explosions in residences, commercial, industrial, and agricultural buildings and facilities, chemical plants, and oil & gas operations. Many of these losses have involved flammable gases, flammable and combustible liquids, combustible dusts, oxidizers, and reactive chemicals. He has extensive experience with propane and natural gas systems and their components and with propane odorant (ethyl mercaptan) and its properties. He has investigated many carbon monoxide and chemical related incidents, and routinely evaluates fire spread issues. Mr. Schumacher has evaluated the ignitability and flammability characteristics of gases and vapors, liquids, powders, plastics, and building materials. Additionally, he has conducted hazard analyses of materials, equipment, and processes.

PUBLICATIONS

List available on web site, www.AEIengineers.com

AFFILIATIONS & COMMITTEES

American Institute of Chemical Engineers (AIChE)

National Fire Protection Association (NFPA)

International Association of Arson Investigators (IAAI), Colorado and International Sections

National Propane Gas Association (NPGA)

NFPA Technical Committee on Hazardous Chemicals (NFPA 40 & 400), Principal Member (2016)

National Society of Professional Engineers (NSPE)

National Academy of Forensic Engineers (NAFE)