



JAMIE MCALLISTER, PHD, PE, CFI, CSP

DIRECTOR, HALLIWELL FIRE RESEARCH US

BALTIMORE, MD/WASHINGTON DC AREA

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SPECIALTIES

- NFPA 921 & Investigative Methodology
- Fire Chemistry, Fire Dynamics, and Fire Modeling
- Electrically Initiated Fires
- Code Consulting, Due Diligence, Plan Review, and Risk Assessments
- Combustion Toxicology, Survivability, and Human Behavior in Fire
- Carbon Monoxide Poisoning Incidents
- Drugs & Alcohol Impairment in Accidental Deaths
- Fire Service Occupational Safety & Health
- Fire Detection, Suppression, and Life Safety Systems
- Performance-Based Design & Fire/People Movement Modeling
- Casual Factors in Fire Deaths & Injuries
- Fire Investigation Training

BIOGRAPHY

Dr. McAllister is a licensed fire protection engineer, a toxicologist, a certified fire investigator (CFI), and a certified safety professional (CSP). She holds Bachelor and Master's degrees in Fire Protection Engineering and has been involved in the field of fire science since 1995 when she joined the volunteer fire service. In 2010, Dr. McAllister further compounded her expertise in the forensic investigation field by completing her PhD in Toxicology. She has more than two decades of experience in research and investigation of fire, combustion, and toxicological incidents and driven change in fire prevention and investigation standards. She has investigated hundreds of fires and offered expert opinions in depositions and trials on issues such as contributory causes in fire deaths and injuries, the impact of code violations, fire protection and life safety systems, and building construction on fire growth and spread, product failures and defects, fire dynamics, and carbon monoxide poisoning.

Dr. McAllister also served as an Authority Having Jurisdiction, i.e. code official, for the federal government where she was responsible for the development of fire and life safety programs, as well as the enforcement of fire and life safety provisions set forth in OSHA regulations, the International Building and Fire Codes, and NFPA standards. Her duties included review of design and construction submittals, laboratory hazard analyses, fire protection and life safety system design and commissioning, management of fire alarm and suppression system inspection, testing, and maintenance, and safety incident investigation. Dr. McAllister is also an adjunct professor in the Fire Protection Engineering Graduate Program at the University of Maryland, College Park where she teaches graduate students about advanced life safety, combustion toxicity, and human behavior in fire.

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EDUCATION:

Ph.D., Toxicology, University of Maryland, School of Medicine, Baltimore, MD, 2010.

M.S., Fire Protection Engineering, University of Maryland, School of Engineering, College Park, MD, 2002.

B.S., Fire Protection Engineering, University of Maryland, School of Engineering, College Park, MD, 2000.

DOCTORAL THESIS:

Ferrino-McAllister, J. "Fire Victim Blood Cyanide Stability and the Development of a Cyanide Uptake Model", University of Maryland, Baltimore, May 2010.

MASTER THESIS:

Ferrino, J. "An Investigation of Fire Phenomena in Residential Electrical Wiring and Connections", University of Maryland, College Park, December 2002.

PROFESSIONAL EXPERIENCE:

Halliwell Fire Research, New Market, MD, 2024 to present.

Director, Principal Engineer and Toxicologist

Responsible for managing Halliwell Fire Research-US team. Serve as lead forensic investigator and expert witness for fire, combustion, and toxicological incidents and lead expert on fire protection systems related claims. Serve as principal fire protection engineer on design and construction projects involving complex structures and systems, performance-based approaches, fire modeling, people movement, and tenability analyses. Serve as the principal investigator on fire science and toxicological research projects including those associated with occupational safety and health, combustion toxicity, human behavior in fire, forensic toxicology, fire investigation, fire protection systems, and fire service training. Serve as the lead instructor for fire death/injury, fire science, fire investigation, wildland/urban interface risk assessment, and combustion toxicity training courses.

FireTox, New Market, MD, 2017 to 2024.

Director, Principal Engineer and Toxicologist

Responsible for managing daily business operations including litigation and fire protection engineering services, as well as research and training initiatives. Served as lead forensic investigator and expert witness for fire, combustion, and toxicological incidents and lead expert on fire protection systems related claims. Served as principal fire protection engineer on design and construction projects involving complex structures and systems, performance-based approaches, fire modeling, people movement, and tenability analyses. Served as the principal investigator on fire science and toxicological research projects including those associated with occupational safety and health, combustion toxicity, human behavior in fire, forensic toxicology, fire investigation, fire protection systems, and fire service training. Served as the lead instructor for fire death/injury, fire science, fire investigation, wildland/urban interface risk assessment, and combustion toxicity training courses.

Combustion Science & Engineering, Inc., Columbia, MD, 2000 to 2020.

Consulting Engineer/Toxicologist (8/2013 to 2/2020)

Responsibilities included the evaluation of issues related to fire, combustion, and toxicological incidents. Conducted fire hazard analysis, forensic failure investigations, post-fire reconstruction analyses, victim toxicological analyses, computational fluid dynamics fire modeling, fire dynamics analyses, case-related large and small-scale experimentation, fire alarm and suppression system failure analyses including re-design, and building and fire code compliance reviews. Served as

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an expert witness on fire litigation cases with experience spanning a broad range of both criminal and civil cases.

Principal Engineer/Toxicologist (5/2010 to 7/2013)

Responsibilities included managing fire investigations unit and acting as a lead scene investigator and expert witness. Directed, managed, and conducted fire, combustion, and toxicological incident investigations. Directed, managed, and conducted engineering fire hazard analyses and forensic failure investigations to prevent and/or explain fires, explosions, and toxicological incidents. Directed, managed, and conducted post-fire reconstruction analyses, victim toxicological analyses, computational fluid dynamics fire modeling, fire dynamics analyses, case-related large and small-scale experimentation, fire alarm and suppression system failure analyses including re-design, and building and fire code compliance reviews. Directed, managed, and conducted investigations of carbon monoxide poisoning incidents from combustion devices. Additional areas of focus included fire department operations as it related to fire spread, damage, and pattern development, and drug and alcohol effects as it related to victim impairment. Served as an expert witness on fire litigation cases with experience spanning a broad range of both criminal and civil cases.

Senior Engineer (1/2007 to 4/2010)

Performed the duties previously described under “*Project Engineer*” as well as directed and managed other Project Engineers in the performance of the same duties. Served as an expert witness in fire litigation cases.

Project Engineer (12/2002 to 12/2006)

Performed origin and cause investigations; Conducted engineering fire hazard analyses and forensic failure investigations to prevent and/or explain fires and explosions; Oversaw post-fire reconstruction and laboratory testing; Performed code review, fire modeling (CFAST and FDS), fire dynamics analyses, carbon monoxide poisoning analyses, and fire victim toxicological analyses.

Staff Engineer (12/2000 to 11/2002)

Performed origin and cause investigations and the duties previously described under “*Engineering Technician*” in a full-time capacity; Designed (in addition to conducting) laboratory tests for litigation support and research and development; Performed code reviews, fire modeling (CFAST and FDS), and fire dynamics analyses for litigation support.

Engineering Technician (5/2000 to 11/2000)

Assisted lead origin and cause investigators in the investigation of residential, commercial, industrial, and vehicular fires; Conducted laboratory experiments for the purposes of post-fire reconstruction analyses and product failure analyses in conjunction with fire litigation; Conducted laboratory experiments for the purposes of fire modeling validation; Conducted laboratory experiments for government-funded and corporate-funded research and development; Responsible for designing data acquisition programs, constructing small and large-scale test compartments, and instrumenting compartments with thermocouples, heat flux gauges, and gas probes.

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National Institute of Standards and Technology, Gaithersburg, MD, 2013 to 2020.

Supervisory Fire Protection Engineer and NIST Authority Having Jurisdiction (8/2015 to 1/2020)

Performed the duties previously described under “*Fire Protection Engineer.*” Performed the duties of the NIST Authority Having Jurisdiction for all NIST-owned and operated campuses including those located in Gaithersburg, MD, Boulder, CO, Fort Collins, CO, Charleston, SC, and Kauai, HI. Supervised and led the Office of Safety, Health, and Environment, Fire & Facilities Safety Group composed of fire protection engineers, an electrical safety engineer, and a fire alarm system administrator. Developed the NIST Fire and Life Safety Program and implemented code adoptions, policies, and programs related to fire, life, and electrical safety applicable to all NIST campuses. Ensured campuses were complying with the requirements set forth in the International codes, NFPA codes, best practices adopted by NIST, and relevant OSHA regulations. Assisted the NIST workplace inspection team in identifying and remediating fire and life safety hazards in offices, laboratories, residential facilities, assembly spaces, healthcare clinic, and various other occupancy types. Managed contracts for fire alarm programming and fire alarm and suppression system inspection, testing, and maintenance on the NIST Gaithersburg and Boulder campuses. Graduated from the NIST New Leader Program and obtained certifications as a Certified Safety Professional and Level 2 Contracting Officer’s Representative.

Fire Protection Engineer (8/2013 to 7/2015)

Conducted laboratory hazard assessments to identify safety concerns related to usage of hazardous chemicals such as flammable, combustible, toxic, pyrophoric, explosive, and reactive gas, liquids, and solids. Provided requirements to eliminate or protect against hazards associated with laboratory research including implementation of monitoring devices, fire suppression and detection systems, and personal protective equipment. Reviewed design and construction submittals for renovations and small- and large-scale construction projects on NIST campuses to ensure compliance with regulatory codes. Occupancy types included Assembly, Business, Factory, High-Hazard, Residential, Storage, Utility, and Miscellaneous Groups. Provided fire and life safety system design services to NIST. Acted as the lead investigator of fire and electrical incidents occurring on NIST campuses.

University of Maryland, College Park, MD, 2014 to present.

Assistant Research Scientist (9/2021 to present)

Serve as principal investigator on federally funded grant program investigating approaches to fire contaminant exposure control in the fire service and health and safety officer continuing education. Responsible for management of research program, collaborating with other research entities, and ensuring project deliverables are produced on time and within budget. Responsible for management of students assigned to perform research tasks.

Lecturer (1/2014 to present)

Instructor for the School of Engineering, Fire Protection Engineering Online Graduate Program. Responsibilities include educating graduate students on topics related to human behavior, people movement, life safety, heat and toxic species production, and tenability in fires.

Fire Laboratory Technician (9/1999 to 5/2000)

Used the cone calorimeter, performed flammability characteristics calculations. Conducted research project in conjunction with the National Institute of Standards and Technology studying burning characteristics of gypsum wallboard with varying layers of paint (over 150 tests). Research was published in “Flammability of Oil-Based Painted Gypsum Wallboard Subjected to

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Fire Heat Fluxes” by Dr. Mowrer and presented at the 2001 NFPA World Fire Safety Congress and Exposition.

Eastern Kentucky University, Richmond, KY, 2010 to 2018.

Instructor/Facilitator (8/2010 to 5/2018)

Served as online instructor and facilitator for Fire Protection Administration and Fire Protection and Safety Engineering Technology Programs. Responsibilities included educating undergraduate students on topics related to fire behavior, combustion sciences, and the use of statistics in fire safety analyses.

University of Maryland, University College, Adelphi, MD, 2008 to 2017.

Associate Professor (8/2014 to 12/2017)

Served as Instructor for the Mathematics Departments. Responsibilities included educating undergraduate students on topics related to collegiate mathematics. Promotion to Associate Professor is based on years of service, as well as relevant and effective service and support of institutional academic rigor.

Assistant Professor (4/2008 to 7/2014)

Served as Instructor for the Fire Science and Mathematics Departments. Responsibilities included educating undergraduate students on topics related to fire origin and cause investigation, fire behavior, fire ignition, fire growth and spread, and legal considerations in fire investigation, as well as mathematics.

Stanton Engineering, Laurel, MD, 1999 to 2000.

Engineering Technician, (11/1999 to 5/2000)

Used National Fire Codes, specifically NFPA 13, 72, and 101. Performed life safety analyses, fire alarm and sprinkler system design, fire modeling, and fire risk assessment. Notable projects: The Pentagon, United States Naval Academy, The Smithsonian Institute. Used *Microstation*

Tilley Fire Equipment Company, Doylestown, PA, 1999.

Sprinkler System Designer/Engineering Technician (5/1999 to 8/1999, Summer Internship)

Used National Fire Codes, specifically NFPA 13, 13D, and 13R. Designed retrofit, tenant finish, and new sprinkler systems. Performed field checks, surveyed installation and fabrication. Assessed blueprints, cut sheets, fabrication reports, and hydraulic calculations. Used *Autocad 14 w/ SprinkCad*.

ABB Power Products, Montgomeryville, PA, 1997-1998.

Technician (1997 to 1998)

Responsibilities included inventory and assembly of electrical power generation, transmission, and distribution equipment including circuit breakers, transformers, switchgear, controls, and relays.

RELATED EXPERIENCE:

Contract Instructor: National Fire Academy, Emmitsburg, MD

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Reviewer: Fire Technology, Fire Safety Journal, International Association of Fire Safety Science, and Brady Publishing

Subject Matter Expert: Department of Defense- Toxic (Fire) Gas Inhalation Injury (BIPTAP), Society of Fire Protection Engineers- Guide on Human Behavior in Fire, DHS/FEMA/USFA Practical Applications of Fire Dynamics and Modeling

Colmar Vol. Fire Company (July '95- December '00)

Position(s) Held: Firefighter

Beltsville Vol. Fire Department (Station 41)/Prince George's County Fire Department (Oct '98-Jan '03)

Position(s) Held: Firefighter/EMT

West Lanham Vol. Fire Department (Station 48)/Prince George's County Fire Department (Jan '03-June '03)

Position(s) Held: Firefighter/EMT

Morningside Vol. Fire Department (Station 27)/Prince George's County Fire Department (June '03-Present)

Position(s) Held: Firefighter/EMT, Apparatus Driver/Operator, Lieutenant, Vice President, Life Member, Recruitment/Retention Team Member, New Apparatus Design/Procurement Committee Member, Grant Committee Chairperson, By-Law Committee Chairperson, and Board of Directors Member.

Fire Department Certifications: Firefighter Level I & II, Emergency Medical Technician, Hazardous Materials Technician, Rescue Technician (Vehicle, Trench, Structural Collapse), Emergency Vehicle Operator, Pump Operator, Fire Service Instructor I & II, NFA Fire/Arson Origin and Cause Investigation.

Other Certifications: OSHA 30-Hour Construction Industry Outreach

PRESENTATIONS/LECTURERS/APPEARANCES:

"Lithium-Ion Emerging Contaminants" presented at the Mid-Atlantic Life Safety Conference, Baltimore, MD, November 4, 2024.

"Environmental and Health Impacts of Thermal Runaway Events in Outdoor Lithium-Ion Battery Energy Storage System Installations" presented at the Society of Fire Protection Engineers Annual Conference, Louisville, KY, October 8, 2024

"Human Behavior: Identifying the Origin & Cause of Deaths and Injuries in Fires & Explosions" presented at the AEGIS 2024 Claims Seminar, Scottsdale, AZ, October 2, 2024

"Forensic Toxicology and Human Behavior in CO Poisonings & Fire Death and Injury Investigations" presented to the Minnesota Chapter of the International Association of Arson Investigators, St. Cloud, MN, May 2, 2024.

"Wildland Urban Interface: Risk Assessment & Mitigation for the Fire Service- Expanded Curriculum" presented to Horry County Fire Rescue, SC, February 5-6, 2024.

"The Use of Forensic Toxicology in Fire Death and Injury Investigation" presented to the Pennsylvania Chapter of the International Association of Arson Investigators, State College, PA, October 17, 2023

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“Fire Engineering for the Fire Service: Developing a WUI Risk Assessment & Mitigation Curriculum” presented at the Society of Fire Protection Engineers Annual Conference, Bethesda, MD, October 10, 2023.

“Engineering a Sustainable and Fire Resilient Built Environment- Panel Discussion” presented at the Society of Fire Protection Engineers Annual Conference, Bethesda, MD, October 10, 2023.

“Health, Safety, & Wellness: Fireground Contaminant Exposure Control Approaches & Challenges” presented at the Mid-Atlantic Life Safety Conference, John Hopkins Applied Physics Lab, Laurel, MD, September 19, 2023.

“Carbon Monoxide: How Different Perspectives Are Showing Us the Bigger Picture” presented at the National Fire Protection Association Annual Conference, Las Vegas, NV, June 20, 2023.

“Fireground Contaminant Exposure Control: National and Regional Approaches” presented at the National Fire Protection Association Annual Conference, Las Vegas, NV, June 19, 2023.

“Wildland Urban Interface: Risk Assessment & Mitigation for the Fire Service”, presented to the Meade County (KY) Fire District, May 9, 2023; Ross Valley (CA) Fire Department, May 10-11, 2023; Colorado Springs (CO) Fire Department, May 17, 2023; Boise (ID) Fire Department, June 6, 2023; Big Sky (MT) Fire Department, June 13, 2023; and Virtual Multi-Department Offering, August 14-15, 2023.

“Environmental and Health Impacts of Fire and Fire Suppression Activities During Large-Scale Fire Events”, presented at the virtual meeting of the SFPE Denmark Chapter, October 27, 2022 and virtual meeting of the SFPE Philadelphia Chapter, November 15, 2022.

“Environmental and Health Impacts of Fire and Fire Suppression Activities During Large-Scale Fire Events”, presented at the 2022 Society of Fire Protection Engineers Annual Conference & Exposition, Detroit, MI, October 13, 2022.

“Review of Impact of Medication on Older Adult Fall and Fire Risk”, presented at the virtual meeting of the Senior Fall Prevention Coalition of Clay and Platte Counties, September 6, 2022.

“Reduce Residential Fire Loss- Impact of Medication on Older Adult Fall and Fire Risk”, presented at the Fire Protection Research Foundation 40th Anniversary Webinar Series, August 24, 2022.

“Fireground Contaminant Exposure Control- Approaches and Challenges”, presented at the Maryland State Firemen’s Association Convention, Ocean City, MD, June 20, 2022.

“Carbon Monoxide Detection Requirements: Do You Feel Safe?” presented at the National Fire Protection Association Annual Conference, Boston, MA, June 7, 2022.

“The Impact of Drugs on Fire Risk”, presented at the National Fire Protection Association Annual Conference, Boston, MA, June 7, 2022.

“Steps to Safety- A community approach to prevent fire and falls among older adults” presented at the National Fire Protection Association Annual Conference, Boston, MA, June 6, 2022

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"Fireground Contaminant Exposure Control- Approaches and Challenges Faced by the Health and Safety Officer", presented at the Maryland Fire and Rescue Institute, Special Programs Workshop, College Park, MD, May 23-24, 2022.

"Fire Suppression System Failures" presented as a Webinar for the National Association of Subrogation Professionals, March 22, 2022.

"Occupant Tenability Assessment Approaches in Performance-Based Design" presented as a Webinar for the Society of Fire Protection Engineers, March 3, 2022.

"Occupant Tenability Analysis" presented as an online lecture to students enrolled in FPE 521- Egress Analysis and Design at California Polytechnic State University, November 11, 2021.

"Occupant Tenability Assessment Approaches in Performance-Based Design" presented at the Society of Fire Protection Engineers Annual Conference, Baltimore, MD, October 18, 2021.

"Innocent Behind Bars", release on internet October 6, 2021.

"The Impact of Forensic Science on Wrongful Convictions" presented at the Indianapolis Bar Association Hybrid Event, September 22, 2021.

"Impaired Occupants and Fire Alarm System Efficacy" presented at the DRI Fire Science Seminar, September 11, 2021

"The Kristine Bunch Case- The Relevance of Forensic Toxicology in Fire Investigation" presented at the Indiana Public Defender Council (IPDC) Seminar, December 4, 2020.

"Fire and Emergency Service Personnel Knowledge, Skills, and Maintaining Proficiency" presented at the National Fire Protection Association, Fire Protection Research Foundation Workshop, Quincy, MA, October 1st and 2nd.

"The Scientific Method in Fire Death Investigation" and "The Impact of Drugs and Alcohol in Fire-Related Death" presented at the International Association of Arson Investigators, Oregon Chapter 31, Advanced Arson Seminar, Newport, OR, September 19, 2018.

"Forensic Toxicology: Furthering Fire Causation Analysis with Medical Evidence" presented at the Maine Event, Portland, ME, July 26, 2018.

"Fire Dynamics for Beginners" presented as a Webinar for the National Association of Subrogation Professionals, February 16, 2018.

"Fire Death Investigations" presented at the Collin County Fire & Arson Investigation Association- 3rd Annual Forensic Fire Death Investigations Course, Huntsville, TX, September 21, 2015.

"Practical Applications of Fire Dynamics and Modeling" presented at the National Fire Academy, Emmitsburg, MD, August 21st-23rd, 2012 and December 2nd- 7th, 2012.

"Toxicology in Fire Investigation" presented at the International Association of Arson Investigators, Annual Training Conference, Dover, DE, April 25, 2012.

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"Fire Related Deaths and Injuries: The Use of Toxicological Data in Fire Origin and Cause Determination" presented at the International Association of Arson Investigators, NC/SC Chapter Training Conference, Myrtle Beach, SC, October 20, 2011.

"Fire Related Deaths and Injuries: The Use of Toxicological Data in Fire Origin and Cause Determination" presented at the National Fire Academy, Emmitsburg, MD, March 19, 2011, April 19, 2011, June 28, 2011.

"The Scientific Method and a Case of Arson-for-Hire" presented at the Circumstantial Arson Case: Investigative Techniques and Strategies Seminar, King of Prussia, PA, February 9, 2011

"Forensic Toxicology in Fire Investigation: The Kristine Bunch Case Study" presented to the Society of Fire Protection Engineers, Beltsville, MD February 8, 2011.

"Burned: Arson Investigation Evidence Changes with Science", 20/20, ABC News, May 7, 2010.

"NFPA 921: Guide to Fire and Explosion Investigation; Session 1: Electricity and Fire, Session 2: Fire and Explosion Deaths and Injuries" presented to the Office of the Maryland State Fire Marshal, February 17, 2010 and March 3, 2010.

"Forensics: You Decide- Up in Flames", Season 1, Episode 3, Investigation Discovery, Discovery Channel, August 2009.

"The Use of Forensic Toxicology in Fire Origin and Cause Determination" presented to the Advanced Fire Investigation Class, Montgomery College, Rockville, MD, February 2009.

"Applications of Forensic Toxicology in Fire Origin and Cause Determination" presented at the Society of Fire Protection Engineers Professional Development Conference, Charlotte, NC, October 2008.

"Application of Fundamental Principles" presented at International Association of Arson Investigators Conference, Denver, CO, April 2008.

"Smoke Detection Systems, Fire Modeling, and Fire Toxicology: Useful Tools in Fire Investigation and Reconstruction" presented at Cozen O'Connor Continuing Legal Education seminar, Philadelphia, PA, April 2007.

"The Extent of Evaporation of Ignitable Liquids Under Exposure to Compartment Fires, Non-Fire Thermal and Non-Thermal Environments" presented at Fire and Materials, San Francisco, CA, January 2007.

"Comparison of Gasoline Weathering on Carpet Samples Exposed to Various Thermal Environments", presented at International Symposium on Fire Investigation Science and Technology, Cincinnati, OH, June 2006.

"Arson Investigation" segment, Fox 5 News, WTTG-DC, May 2005.

"Electrical Fire Research" presented at NFPA 921 Committee Meeting, Tucson, AZ, February 2002.

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PROFESSIONAL CERTIFICATIONS:

Associate Safety Professional, Board of Certified Safety Professionals, Certification, (2016-2017)

Certified Fire and Explosion Investigator, National Association of Fire Investigators, (2004-2012)

Certified Fire Investigator, International Association of Arson Investigators, (2009-present)

Certified Safety Professional, Board of Certified Safety Professionals, (2017-present)

Contracting Officer's Representative- Level I, Federal Acquisition Institute, (2016-2018)

Contracting Officer's Representative- Level II, Federal Acquisition Institute, (2018-2020)

International Firestop Council- Firestop Inspector Certification, (2020-2023)

Registered Professional Engineer- CA, CO, DE, FL, MD, NC, NJ, NY, PA, SC, VA

PROFESSIONAL AFFILIATIONS:

Present

Chair, *Guide to Human Behavior in Fire*- 3rd Edition, Society of Fire Protection Engineers

Committee Member, NFPA 921, *Guide for Fire and Explosion Investigations (Committee on Fire Investigations)*

Committee Member, NFPA 1585, *Standard on Exposure and Contamination Control (Committee on Emergency Responders Occupational Health)*

Fire Protection Engineer Member, *Workgroup to Develop Fire Safety Best Practices for Pre-1974 High-Rise Apartment Buildings*, Appointed by Maryland Governor Wes Moore

Peer Reviewer, *Technical Guide to Wildfire Impact Assessments for the OEHS Professional* - 2nd Edition, American Industrial Hygiene Association (AIHA)

Organizational Member, Board of Certified Safety Professionals (BCSP)

Organizational Member, International Association of Arson Investigators (IAAI)

Organizational Member, International Code Council (ICC)

Organizational Member, International Association of Fire Safety Science (IAFSS)

Organizational Member, National Fire Protection Association (NFPA)

Organizational Member, Society of Forensic Toxicology (SOFT)

Organizational Member, Society of Fire Protection Engineers (SFPE)

Past

Committee Member, NFPA 720, *Standard for the Installation of Carbon Monoxide Detection & Warning Eq.*

Committee Member, ISO/TC 92/SC3, *Fire threat to people and the environment*

Committee Member, Technical Working Group for Fire and Explosives (TWGFEX)

Organizational Member, Society of Toxicology (SOT)

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PUBLICATIONS:

McAllister, J.L., McCarrick, B., Zhao, Z. (2025). Environmental and Health Impacts of Thermal Runaway Events in Outdoor Lithium-Ion Battery Energy Storage System Installations, SFPE Foundation, Gaithersburg, MD.

McAllister, J.L., McCarrick, B. The Impact of Antidepressants and Narcotics on Fire Risk. Fire Technology (2025). <https://doi.org/10.1007/s10694-025-01743-9>

McAllister, J., Biteau, H. (2024). Integrating Fire Engineering and the Fire Service Through WUI Training and Tool Development, FPE Magazine (Q1), Society of Fire Protection Engineers, Gaithersburg, MD.

McAllister, J., McCarrick, B., Zhao, Z. (2023). Environmental and Health Impacts of Large-Scale Fire Events, FPE Magazine (Q4), Society of Fire Protection Engineers, Gaithersburg, MD.

McAllister, J., McCarrick, B., Zhao, Z., Fagan, C. (2023). Environmental and Health Impacts of Fire and Fire Suppression Activities During Large-Scale Fire Events, SFPE Foundation, Gaithersburg, MD.

McAllister, J., Milke, J. (2022). Fireground Contaminant Exposure Control Approaches and Health & Safety Officer Continuing Education, University of Maryland, Department of Fire Protection Engineering, College Park, MD.

Milke, J., McAllister, J. (2022). Carbon Monoxide Incidents: A Review of the Data Landscape, Fire Protection Research Foundation, Quincy, MA.

Yoon, Ko, Elsagan, N., Hassan, R., McAllister, J. (2022). AFFF Decontamination of Firefighting Vehicles, Proceedings of the NFPA Suppression, Detection and Signaling Research and Applications Conference (SUPDET), Atlanta, Georgia, September 13-16, 2022.

McAllister, J., Maglione, M., Zhao, Z., McCarrick, B. (2021). Review of Impact of Medications on Older Adult Fall and Fire Risk, Fire Protection Research Foundation, Quincy, MA.

McAllister, J. (2021). Ecotoxicity Analysis of Rinse Samples from Firefighting Apparatus AFFF Decontamination Trial, Supplement A in AFFF Decontamination of Aircraft Rescue and Firefighting Vehicles, National Research Council of Canada, Ottawa, Ontario, Report No.: A1-016841.1

McAllister, J. (2021). Assessment of Smudging Activities Conducted by Inmates in Canadian Correctional Facilities, Appendix A in CSC Smudging Toxicity: A Literature Review, National Research Council of Canada, Ottawa, Ontario, Report No.: A1-017894.1

McAllister, J. & McAllister, B. (2020). Leadership: Fire and Emergency Service Personnel Knowledge and Skills Proficiency, *Fire Engineering*, October 22, 2020.

McAllister, J. (2020). Ecotoxicity of Fluorine Free Foams used for Fire Extinguishment, Supplement A in Assessment of Non-Fluorinated Firefighting Foams: Foam Performance and Ecotoxicity, National Research Council of Canada, Ottawa, Ontario, Report No.: A1-016047.1.

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McAllister J., Kunsman G.W., Levine B.S. (2020) Carbon Monoxide/Cyanide. In: Levine B., KERRIGAN S. (eds) Principles of Forensic Toxicology. Springer, Cham. https://doi.org/10.1007/978-3-030-42917-1_30

McAllister, J. & McAllister, B. (2019). Fire and Emergency Service Personnel Knowledge and Skills Proficiency, Fire Protection Research Foundation, Quincy, MA.

Ko, Y., McAllister, J., Gwynne, S., Kruszelnicki, M. (2019). A Study of the Effect of Smoke Toxicity from an Inmate Cell Fire, Proceedings of the Third International Fire Safety Symposium (IFireSS), Ottawa, Ontario, June 5-7, 2019. <https://cibworld.org/ifiress-2019-proceedings/>

McAllister, J. et al. (2019). *Guide to Human Behavior in Fire*. (2nd ed.). Society of Fire Protection Engineers, Gaithersburg, Maryland.

McAllister, J., et al. (2016). Fire Investigation: Fire Dynamics and Modeling, Student Manual, 2nd Edition, FEMA/USFA/NFA

Purser, D. & McAllister, J. (2016). Assessment of Hazards to Occupants from Smoke, Toxic Gases, and Heat. In *SFPE Handbook of Fire Protection Engineering* (5th ed.). Quincy, Massachusetts: National Fire Protection Association.

McAllister, J. (2014). Health Effects in Groups Exposed to Wildland and Urban Fires. In *Health Effects from Combustion Products*. Abingdon, Oxfordshire: Royal Society of Chemistry.

McAllister, J.L., Carpenter, D.J., Roby, R.J., Purser, D. "The Importance of Autopsy and Injury Data in the Investigation of Fires", *Fire Technology*, November 2014, Volume 50, Issue 6, pp. 1357-1377.

Hussain, N., McAllister, J.L., Roby, R., "Analysis of Beads Formed on Energized and Non-Energized Electrical Copper Conductors Exposed to Various Thermal Insults", Proceedings from the International Symposium on Fire Investigation Science and Technology, College Park, MD, 2012.

Roby, R., McAllister, J.L., "Forensic Investigation Techniques for Inspecting Electrical Conductors Involved in Fire", United States Department of Justice, Document No. 239052, July 2012.

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