



Contact Details

Meacham Associates
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Representative Positions Held

2008 – present, *Meacham Associates*, Managing Principal
2008 – 2017 *Worcester Polytechnic Institute*, Associate Professor
2000–2007 – *Arup*, Principal; Global Leader – Risk Consulting Practice; Business Leader – Management Consulting (Americas); Business Leader – Risk & Security (Americas); Fire Engineering Consultant
1995–2000 – *SFPE*, Research Director and Technical Director

Qualifications

P.E., Massachusetts, 47238
P.E., Connecticut, 17906
Chartered Engineer, UK, Institution of Fire Engineers, 519749
EUR ING, FEANI, Europe, 34094
Ph.D., Risk and Public Policy, Clark University
M.S., Fire Protection Engineering, Worcester Polytechnic Institute
B.S., Electrical Engineering, Worcester Polytechnic Institute

Professional Memberships

International Association for Fire Safety Science (Chair, 2021-23)
Institution of Fire Engineers
Society of Fire Protection Engineers
National Fire Protection Association

Key Data

Brian has nearly forty years of international experience helping organizations of all sizes address complex building and infrastructure fire safety design and risk mitigation challenges, helping governments undertake reviews and address building and fire regulatory system challenges, and conducting research in these and related areas.

He is widely recognized as an authority on risk-informed performance-based approaches to engineering and regulation, having undertaken research, participated in the development of guidance documents, authored numerous publications, and consulted to governments world-wide.

Awards, Recognition, Appointments

Fellow, IFE
Fellow, SFPE
Fulbright Global Scholar Awardee
ICC Global Award
SFPE Harold E. Nelson Service Award
Chair, NFPA TC Fire Risk Assessment Expert, US TAG, ISO TC92 SC4

Representative Recent Projects

World Bank (Washington, DC, USA). Contracted to provide review of the fire safety section of the draft building code of Malawi, to provide peer review of the BRCA 2.0, and to develop a diagnostic to help team members review fire-related building code provisions (Mar – Jun 2022).

Cladding Safety Victoria (Melbourne, Australia). Contracted to provide independent international expert review (Mar 2022-).

Port Authority of New York and New Jersey, (New York, NY). Contracted (via Mott MacDonald) to provide fire safety peer-review services of a performance-based fire safety design for an innovative theater project with moveable floors and configurable theater spaces (Feb 2022 -).

Kindling, Inc. (Duxbury, MA). Research into the fire safety risk of the insecure and vulnerably sheltered in USA for the National Fire Protection Association (2021 -).

International Code Council (Washington, DC). Contracted to undertake research into current views on performance-based building codes and design methods and to recommend a path forward for a reimagined ICCPC (2021 –)

UCSD (San Diego, CA). Fire safety engineering and fire research support for project on Earthquake and Fire-Following Earthquake Resiliency of Mid-Rise Cold-Formed Steel Buildings (2021 –)

Boverket (Karlskrona, Sweden, via contract with Briab). Contracted to provide expertise on restructuring of performance-based building regulations and on stakeholder engagement (2020 -).

World Bank (Washington, DC). Contracted as Senior Consultant to the World Bank to develop Urban Fire Regulatory Assessment and Mitigation Effectiveness (Urban FRAME) diagnostic tool for low- and middle-income countries (2019/20).

Fire Protection Research Foundation (Quincy, MA). Research on fire safety impacts of ‘green’ buildings and attributes. With Lund University (January-November 2020).

Lund University (Lund, Sweden). Development of a Research Roadmap for Environmental Impacts of Fire. For Fire Protection Research Foundation (Nov 2019 – April 2020).

Knauf Insulation (Vise, Belgium). Contracted to provide expert services related to building regulatory requirements for fire safety and associated standardized fire test methods (April 2019 – March 2020)

TNO (Delft, the Netherlands). Contracted to provide expert consulting services on human behavior and evacuation (2019)

Port Authority of New York and New Jersey, (New York, NY). Contracted to lead peer-review services for a performance-based design of a high-hazard facility. Sub-contractor to Mott MacDonald (March 2018 –)

International Code Council (Washington, DC). Development of a document on the benefit of building codes for increasing community resiliency (March – September 2018).

Scottish Government, Building Standards Division (Edinburgh, Scotland). Contracted to conduct research into the options for a centralized hub for verification of fire engineering designs (Feb–June 2018).

World Bank (Washington, DC). Engaged as Senior Consultant to the World Bank, *Building Regulation for Resiliency* project, to develop building regulatory capacity assessment approach for low- and middle-income countries, and to undertake building regulatory capacity assessments (2016 -).

Australian Building Codes Board (Canberra, ACT, Australia). Contracted to develop report on threshold tolerable risk levels for inclusion into the National Construction Code (2015 – 16).

Representative Publications

Books & Book Chapters

Meacham, B.J. and McNamee, M, Eds., *Handbook of Fire and the Environment: Impacts and Mitigation*, Springer AG, 2022.

Meacham, B.J. *Building Community Resilience Through Modern Building Codes*, ISBN: 978-1-60983-867-6, ICC, Washington, DC, 2018.

Fitzgerald, R.W. and Meacham, B.J., *Fire Performance Analysis for Buildings*, John Wiley & Sons, 2017.

Meacham, B.J., Johnson, P.J., Charters, D. and Salisbury, M., “Building Fire Risk Analysis,” Chapter 75, *SFPE Handbook of Fire Protection Engineering*, 5th Ed., Springer, 2015.

Tubbs, J. and Meacham, B.J., *Egress Design Solutions: A Guide to Evacuation and Crowd Management Planning*, John Wiley & Sons, 2007.

Project Reports

Evaluating Data and Voice Signals in Pathway Survivable Cables for Life Safety Systems, Fire Protection Research Foundation, Quincy, MA (with P. van Hees, J. Astrom, P. Andersson, Lund University) (<https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders/Evaluating-Data-and-Voice-Signals-in-Pathway-Survivable-Cables-for-Life-Safety-Systems>).

Global Plan for a Decade of Action for Fire Safety, International Fire Safety Standards Coalition ([decade-of-action-for-fire-safety november-2021.pdf](https://www.rics.org/decade-of-action-for-fire-safety-november-2021.pdf) (rics.org)), 2021.

Developing a global standard for fire reporting, Royal Institution of Chartered Surveyors, London ([developing-a-global-standard-for-fire-reporting.pdf](https://www.rics.org/developing-a-global-standard-for-fire-reporting.pdf) (rics.org)), 2020.

Fire Safety Challenges of ‘Green’ Buildings and Attributes, FPRF, Quincy, MA (with McNamee), <https://www.nfpa.org/~media/Files/News%20and%20Research/Fire%20statistics%20and%20reports/Building%20and%20life%20safety/RFGreenBuildings2020.pdf>, November 2020.

Urban Fire Risk Assessment and Mitigation Evaluation (Urban FRAME) Diagnostic, World Bank, Washington, DC, (with Moullier et al. <https://openknowledge.worldbank.org/handle/10986/34671>), Nov 2020.

A Holistic Approach for Fire Safety Requirements and Design of Façade Systems (HOLIFAS), Lund University, with van Hees and Stromgren, lead author van Hees, May 2020 (<https://www.brandforsk.se/en/research-projects/2020/an-holistic-approach-for-fire-safety-requirements-and-design-of-facade-systems-holifas/> (December 2020).

Environmental Impact of Fire – Research Roadmap, Fire Protection Research Foundation, Quincy, MA, USA, February 2020 (with McNamee, Marlair and Truchot, McNamee lead author), <https://www.nfpa.org/~media/Files/News-and-Research/Fire-statistics-and-reports/US-Fire-Problem/RFRoadmapEnvironmentalImpactFires.pdf> (April 2020)

Peer-Reviewed Papers

Meacham, B.J., “Fire performance and regulatory considerations with modern methods of construction,” *Buildings and Cities*, accepted for publication 24 May 2022

Meacham, B.J., “A Sociotechnical Systems Framing for Performance-Based Design for Fire Safety,” *Fire Technology*, <https://doi.org/10.1007/s10694-022-01219-0>

Meacham, B.J., van Straalen, I.J.J. and Ashe, B. “Roadmap for incorporating risk as a basis of performance objectives in building regulation,” *Safety Science*, 141, 2021.

Meacham, B.J., Stromgren, M. and van Hees, P., “A Holistic Framework for Development and Assessment of Risk-Informed Performance-Based Building Regulation,” *Fire & Materials*, DOI:10.1002/fam.2930, 2020.

Meacham, B.J. and van Straalen, I., “A Socio-Technical System Framework for Risk-Informed Performance-Based Building Regulation,” *Building Research & Information*, 2017.

Meacham, B.J., “Post-Earthquake Fire Performance of Buildings: Summary of a Large-Scale Experiment and Conceptual Framework for Integrated Performance-Based Seismic and Fire Design,” *Fire Technology*, Volume 52, Issue 4, pp 1133–1157, 2015.