

Mr. Bouldin is an aerospace engineer and a licensed Engineer in Training, with over 35 years of tenure at ESI. He has worked extensively with ESI consultants in support of accident analysis, accident reconstruction, product safety, and litigation support. Mr. Bouldin's responsibilities have included oversight of the Aurora, Illinois laboratory facilities, management of the artifact and evidence control and safeguarding systems, and in part, employee training. Mr. Bouldin managed and coordinated activities in the ESI metallurgical laboratory during his first 10 years at ESI.

Mr. Bouldin is the past President and Treasurer of the Great Lakes Region of The International Society for Air Safety Investigators. He is a member of Tau Beta Pi (National Engineering honor Society).

Mr. Bouldin's areas of interest include product safety and accident investigation and analysis. He has worked extensively in the area of safety issues related to gas-fired appliances pertaining to accidental ignition of flammable vapors. His background in non-destructive testing, metallurgical laboratory methods, and aerospace engineering serve as the basis for undertaking a wide variety of assignments which involve consideration of materials, design safety, and performance issues.

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## Education

B.S. Aerospace Engineering, Tri-State University, 1988

A.A.S. Non-Destructive Evaluation, Moraine Valley Community College, 1984

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## Licenses & Certifications

- Engineer in Training (EIT)
- State of Indiana ..... License No. ENT8700434

## Contact Information

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### ESi Aurora

4215 Campus Drive  
Aurora, IL 60504

## Areas of Specialization

- Appliance Performance and Safety
- Metallurgical Failure Analysis
- Product Safety Analysis

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## Positions Held

### Engineering Systems Inc., Aurora, Illinois

- Senior Consultant, January 2026 – Present
- Senior Staff Consultant, May 2013 – December 2025
- Senior Staff Consultant and Manager of Administrative Operations, February 2011 – May 2013
- Manager of Technical Systems, January 2000 – February 2011
- Senior Staff Consultant, January 1996 – December 2001
- Staff Engineer, March 1988 – December 1995

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## Professional Affiliations/Honors

### Tau Beta Pi (Engineering Honor Society)

- Member

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## Publications

“A Non-Hazardous Methodology for Examining Heavier Than Air, Flammable Vapors under Residential Conditions Exposed to Household Appliance Ignition Sources,” C.R. Morin, R.N. Koopman, R. Pape, **P.C. Bouldin**, Proceedings of the American Institute of Aeronautics and Astronautics, 1st International Energy Conversion Engineering Conference, Portsmouth, VA, August 20, 2003.

“Metallurgical Analysis of Post-Crash Fire Evidence,” Fire and Materials, C.R. Morin, **P.C. Bouldin**, Volume 19, 1995.

“In Service Failure of SAE Grade 8.1 Wheel Studs,” R.J. Shipley, **P.C. Bouldin**, E.W. Holmes, ASM Handbook of Case Histories in Failure Analysis, Volume 2, 1993.

“Arcing Fault Burndown in Low Voltage Residential Service Entrance with Aluminum Conductors,” H.F. Prosser, R.J. Shipley, **P.C. Bouldin**, ASM Handbook of Case Histories in Failure Analysis, Volume 2, 1993.

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## Presentations

“A Flow Visualization Methodology for the Study of Ignition of Heavier than Air Flammable Vapors,” C.R. Morin, **P.C. Bouldin**, ASTM Committee E05 on Fire Standards, Research Review, Toronto, Canada, June 2000.