Dale C. Mann

CFI, CFEI, D-ABC

Senior Managing Consultant

Mr. Dale Mann is a forensic chemist with over 41 years of experience in analytical chemistry, general forensic evaluations, and forensic chemistry. He has performed chemical and physical analyses in thousands of investigations involving criminalistics, subrogation, industrial troubleshooting, construction defects, and liability claims in both criminal and civil investigations.

For over 17 years, Mr. Mann was a forensic scientist at the Washington State Patrol Crime Laboratory. While there, he was responsible for performing chemical, analytical, physical, microscopic, and general forensic analyses to assist in thousands of law enforcement investigations and testified in over 300 court appearances. He was also responsible for the training, quality control, and productivity of the Chemistry and Microanalysis Sections in the Tacoma Crime Laboratory. He provided extensive training to law enforcement personnel and forensic scientists throughout the country in a variety of forensic topics.

For over 18 years, Mr. Mann was a principal and vice president of MDE Inc. He started the Forensic Laboratory Division of MDE and provided state-of-the-art analytical services to clients throughout the country. In addition to the types of work he performed while with the Crime Laboratory, he assisted in many field investigations and laboratory testing involving the failure analysis of complex polymeric materials in a wide variety of applications, including fire and bombing investigations, building envelope defects, chemical failure analysis, chemical manufacturing/process control troubleshooting and much more.

Mr. Mann is a certified fire and explosions origin and causes investigator. His areas of expertise include scene documentation, laboratory analyses, and scenario testing. He has reviewed many case files to assist counsel to understand the nuances of the investigation and in trial preparation. He has organized and administered several large loss fire investigations and artifact inspections involving dozens of parties. He is also a principal researcher, author, and lecturer in several topic areas involving forensic chemistry.

Contact Information

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ESi Seattle

700 South Industrial Way
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Areas of Specialization

- Building envelope/component failures
- Chemical and microscopic analysis and research
- Chemical failure analysis
- Chemical manufacturing/tampering/incompatibility
- Drugs/hazardous material issues environmental contamination
- Fire, bombing, and fireworks investigations
- General criminal and civil investigations
- Polymer characterization
- Chemical process troubleshooting
- Fire investigation case review
- Criminal defense reanalysis and case review

Education

B.S., Chemistry, University of Washington, 1978 B.S.

Oceanography, University of Washington, 1978

Positions Held

ESi (Engineering Systems Inc.), Seattle, WA

- Senior Managing Consultant 2016 – Present

MDE, Inc., Seattle, WA

- Vice President & Principal, Senior Forensic Chemist, 1998 – 2016

Washington State Patrol Crime Laboratory, Seattle, WA

- Forensic Scientist, 1981 – 1998

Battelle, Pacific Northwest Laboratories, Richland, WA

- Research Scientist, 1978 – 1981

University of Washington-Department of Oceanography, Seattle, WA

- Research Assistant, 1977 – 1978

Publications

“Epoxy Grout and Enzymatic Cleaners: A Question of Compatibility” By **D.C. Mann**, Tile Magazine, July 2009

Confirmation of the Presence of Styrene Butadiene Resin (SBR) Polymer in Drywall Primer Applications” by **D.C. Mann**, Perkin Elmer Application Note, 2009

“Studies of the Dehydration/Calcination of Gypsum Wall Board” by **D.C. Mann**, Fire and Materials, 2009

"The Use of Rated Wall Board Primers as Vapor Barriers" by **D.C. Mann**, WDTL Defense News, Spring 2007

"Alternative Sampling Methods to Collect Ignitable Liquid Residues from Non-Porous Areas Such as Concrete" by **D.C. Mann** and N.D. Putaansuu, Fire and Arson Investigator, 57:1, 43-46, 2006

"In Search of the Perfect Container for Fire Debris Evidence" by **D.C. Mann**, Fire and Arson Investigator, 30:3, 21-25, 2000

"Washing Machine Effluent May Provide Clues in Dryer Fire Investigations by **D.C. Mann** and M.M.

Fitz, Fire Findings, 7:4, 4, 1999

"Considerations in the Analytical Interpretation of Gas Chromatographic Test Results of Fire Debris" by **D.C. Mann**, Proceedings of the International Symposium on the Forensic Aspects of Arson Investigations, U.S. Department of Justice, Federal Bureau of Investigation, 163-164, 1995

"Bacterial Degradation of Gasoline in Soil" by **D.C. Mann** and W.R. Gresham, Journal of Forensic Sciences, 35:4, 913-923, 1989

"The Comparison of Automotive Gasolines Using Capillary Gas Chromatography II: Limitations of Automotive Gasoline Comparisons in Casework" by **D.C. Mann**, Journal of Forensic Sciences, 32:2, 616-628, 1987

"The Comparison of Automotive Gasolines Using Capillary Gas Chromatography I: Comparison Methodology" by **D.C. Mann**, Journal of Forensic Sciences, 32:2, 606-615, 1987

“Analysis of Organohalogen Products from Chlorination of natural Waters Under Simulated Biofouling Control Conditions” by R.M. Bean, **D.C. Mann** and R.G. Riley, Pacific Northwest Laboratory, NUREG/CR-1301, PNL-3275, 1980

“Quantitation of Pollutants in Suspended Matter and Water from Puget Sound”, R.G. Riley et al, NOAA Technical Memorandum ERL MESA-49, 1980

“Organic Pollutants in Waterways adjacent to Commencement Bay (Puget Sound)” By R.G. Riley, et al, NOAA Technical Memorandum OMPA-12, 1980

Presentations

Over 70 presentations to local associations of investigators, attorneys, and insurance adjusters regarding fire analysis, clandestine drug manufacturing, general forensic science, construction defect, scientific method and bias, and general laboratory services, including the recognition and preservation of evidence and the theoretical and practical considerations regarding laboratory analysis of evidence.

Numerous presentations at regional and national meetings of forensic scientists and investigators regarding original research on a variety of topics related to fire debris analysis and general forensic science. Topics include comparison of automotive gasolines to determine common source, bacterial degradation of petroleum products and its effect in fire debris analysis, contamination of commercially available packaging materials for fire debris evidence, theoretical considerations of methodology used for fire debris analysis, and distinguishing burned versus evaporated petroleum products.

Guest lecturer and instructor at the Federal Bureau of Investigation (FBI), Bureau of Alcohol, Tobacco and Firearms (BATF), the National Forensic Science Training Center (NFSTC), and the International Association of Arson Investigators (IAAI) for basic and advanced schools dealing with fire debris analysis.