

news of engineering forensics

MDE

Engineers, Inc.



Doug Barovsky joins MDE's staff

Douglas J. Barovsky is a professional licensed electrical engineer and has joined MDE as one of our Principal engineers. Mr. Barovsky has been providing services since April 2002 as an Associate and will continue to provide services as a Principal in the areas of electrical/electronic product failure analysis and fire investigations. Mr. Barovsky brings to MDE experience in design engineering, failure analysis and government regulatory compliance.

Mr. Barovsky comes to MDE from The Boeing Company. Mr. Barovsky has a diverse background in design engineering, project management and regulatory compliance for both domestic and foreign government agencies. The last six years, Mr. Barovsky has worked closely with the Federal Aviation Administration (FAA) in his appointed role as a Designated Engineering Representative (DER) holding both a company DER ticket as well as a consultant DER ticket. Mr. Barovsky provided technical support for powerplant electrical systems on all of The Boeing Company's out-of-production and current production commercial airplanes, including the recently introduced 737NG, 757-300, 767-400ER and the soon to be introduced 777-300ER.

Recognized for his technical expertise, Mr. Barovsky has been relied upon to support

the National Transportation Safety Board (NTSB), the FAA and The Boeing Company in several high profile airline accident investigations including the Lauda Air Flight 004 inflight thrust reverser deployment, TWA Flight 800 and Egypt Air Flight 990.

As part of Mr. Barovsky's diverse experience at The Boeing Company, he has had the opportunity to conduct numerous electrical and electronic part failure analyses. Part or equipment failure analysis is the process or procedure for determining the symptoms, effects, modes, mechanisms and causes contributing to component failure through appropriate tests, examinations and analysis. The goal of course, especially in a design and manufacturing environment, is identification of appropriate improvements necessary to prevent future failures. Mr. Barovsky was also responsible for conducting Fault Hazard Assessments (FHA) and Failure Modes and Effects Analyses (FMEAs). The FHA and FMEA are a systematic group of activities intended to (1) recognize and evaluate the potential failure modes of a product or process and their effects and (2) identify actions that could eliminate or reduce the chance of the potential failure modes from occurring. Additionally, in his capacity as an FAA



DER, Mr. Barovsky has unique experience with demonstrating compliance to, and interpretation of, federal codes, standards and regulations.

As with aircraft accident investigations, a fire investigation is a complex activity involving skill, technology, knowledge and science. The compilation of factual data, as well as the analysis of that data, should be accomplished objectively. The basic methodology of the fire investigation should rely on the use of a systematic approach. This systematic approach is the scientific method. NFPA 921 is the

industry standard that establishes guidelines and recommendations for the safe and systematic investigation or analysis of fire and explosion incidents. NFPA 921 is intended to assist individuals who are charged with the responsibility of investigating and analyzing fire and explosion incidents and rendering opinions as to the origin, cause, responsibility or prevention of such incidents. NFPA 921 is approved

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Dave Olson has retired. MDE wishes Dave the best of luck as he pursues other life goals.

New lab equipment! MDE has recently purchased a Thermal Gravimetric Analyzer. This instrument will assist us in investigations involving the premature degradation / failure of plastics, rubbers and building materials and also in fire investigation involving materials that may spontaneously heat. This added capability further expands our ability to fully address all the technical issues pertinent to your investigations and continues our commitment to be the premier forensic laboratory in the Northwest.

MDE Engineers, Inc.

700 South Industrial Way
Seattle, WA 98108-5231

206/622-2007 Fax 206/622-2248
info@mde.com www.mde.com

Vern D. Goodwin, P.E.
Michael M. Fitz, P.E.
Gerard F. Schaefer, P.E.
Randy K. Kent, P.E.
Dale C. Mann, Chemist
Paul J. Moore, P.E.
Keith G. Cline, P.E.
Douglas J. Barovsky, P.E.
Paul J. Josten, Forensic Technician
Michael V. Schoenecker, Master Mechanic
Noel Putaansuu, Fire Investigator
Nils F. Juhlin, PhD, P.E.
Mark C. Lobo, PhD
Brian Martin, Motorcycle Specialist
Laura L. Kentala, Microbiologist
Roy G. Baggerly, PhD, P.E.
Mark G. Nordstom, P.E.
J. Lee Durston, Lab Technologist/Graphics

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as an American National Standard. Mr. Barovsky is trained in the guidelines and practices of NFPA 921 and is a National Association of Fire Investigators (NAFI) Certified Fire and Explosion Investigator (CFEI).

BUILDING SCIENCE

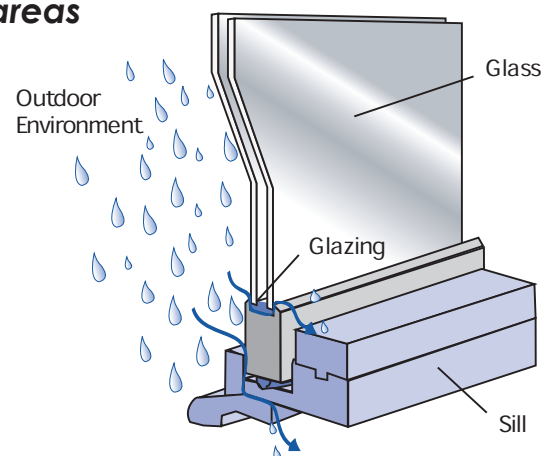
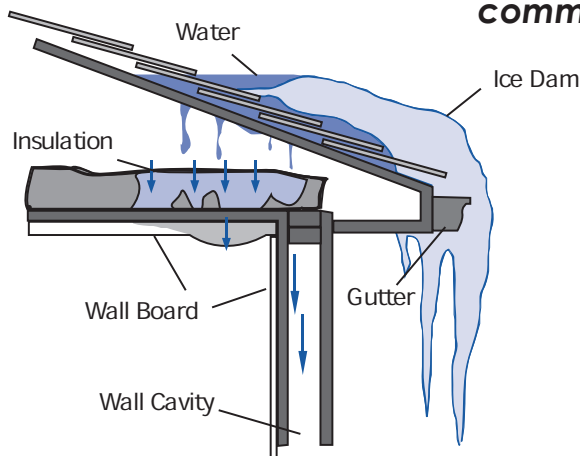
Americans spend a large percentage of their lives indoors. Technology has allowed us to construct architectural masterpieces that shelter us from the outdoor elements. However, growing evidence suggests that some buildings are not made to withstand the outdoor elements. Light and water in its various forms degrades materials at extraordinary rates. New materials are marketed as impervious to the elements and may develop new unforeseen problems. Some buildings may be detrimental to the health of their occupants, especially those with compromised lung capacity due to age, asthma/allergies, chemical sensitivities or other respiratory conditions. Building Science is a growing field in which advancements are being made to make the building

envelope or indoor environment a safer place to spend our time. At MDE we provide expert consultation pertaining to the issue of Building Science. From Engineers to Scientist MDE offers a comprehensive evaluation team to address all of your needs or concerns. MDE provides on site investigation and backs it up with a fully comprehensive forensic laboratory and testing facility.

MDE Building Science Expertise includes:

- Building Envelope Inspection/Evaluation
- Full Forensic Laboratory
- TGA (Thermal Gravimetric Analysis)
- Testing and Research Center
- Mold Investigation
- Indoor Air Quality Investigation
- Indoor Environment Evaluation
- Wall Thermography
- Roofing Evaluation and Testing
- Window & Material Testing & Failure Analysis
- Metallurgical Testing & Failure Analysis
- Electrical Testing & Failure Analysis

Water Intrusion: common problem areas



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700 South Industrial Way
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