



MATERIALS ENGINEERING AND EVALUATION

Solutions for Materials Reliability and Failure Problems

Baker Engineering and Risk Consultants, Inc. (BakerRisk) provides a wide range of services in materials engineering, evaluation, and failure analysis. Our clients rely on BakerRisk to perform the testing and develop the solutions for their challenging equipment and structural materials problems.

What makes BakerRisk unique is the diverse expertise and experience of our staff in testing, consulting, and risk management, combined with the knowledge acquired from our lab and field testing services, R&D programs, and accident investigations.



BakerRisk's laboratory is used to evaluate damage and failure mechanisms in structures, equipment and components



A metallurgical engineer evaluates damage effects at an accident site

Key Benefits

Improved equipment safety and reliability

Effective solutions to challenging materials problems

Reduced costs

Improved operations and equipment availability

Specializing in Solutions for Industry

- Chemical
- Petroleum Refining
- Oil & Gas Exploration and Production
- Pipeline
- Power
- Manufacturing
- Pulp and Paper
- Aerospace
- Pharmaceutical
- Insurance and Legal

Our materials engineering and evaluation services are supported by significant capabilities and experience in incident and accident investigations, root cause analysis, risk reduction, blast effects and structures response, process safety, and chemical hazards testing and evaluations.

BakerRisk focuses on improving reliability, reducing risk, and determining the cause of failures. We are widely known and respected in private industry and government, as well as in the legal and insurance industries, for providing answers and solutions to difficult industrial problems. We have also supported clients by serving as expert witnesses.



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About BakerRisk

Baker Engineering and Risk Consultants, Inc. is one of the world's leading explosion analysis, structural design, and risk engineering companies. BakerRisk provides comprehensive consulting, engineering, laboratory and range testing services to government agencies and private companies who are involved with dangerous, highly hazardous, reactive, or explosive materials.



Blast Effects & Explosion Testing



Dynamic Structural Analysis and Design



Risk Engineering



Process Safety



Incident Investigations



Reactive Chemicals Testing & Management Systems



Materials Engineering and Failure Analysis

www.BakerRisk.com

During a project, BakerRisk's materials lab, chemical hazards lab, and our large-scale test range facilities provide required data and results. Specialized tests and procedures can also be developed by BakerRisk to effectively evaluate a client's particular problem.

Material Engineering and Test Services

- Failure Analysis of Structural Components
- Materials Evaluation and Testing
- Metallurgical Engineering
- Fatigue Damage Assessments of Structures and Industrial Equipment
- Accident Investigations, Root Cause Analysis, and Litigation Support
- Reverse Materials Engineering of Components
- Corrosion Damage Assessments, Prevention, and Control
- Mechanical Integrity of Industrial Equipment
- Life Assessment and Failure Analysis of Rotating Equipment
- Heat Damage and High-Temperature Remaining Life Assessments

Accident Investigations and Materials Testing

BakerRisk's international reputation in the area of accident investigations is supported by the engineering staff and materials lab. We use our experience and expertise to support the control and management of the accident site, preserve evidence, prove or disprove accident scenarios, determine the cause of the accident, provide effective solutions, and to develop the plans and safety programs for post-accident operations. Frequently, key information about the cause of an accident comes from analysis and understanding of the materials involved.



For more information on Materials Engineering and Evaluation services, contact:

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