

## Our Commitment

Provide our clients with the risk management data and tools they need to properly manage their catastrophic risks.

To meet this commitment we selectively integrate various engineering and underwriting consulting services specific to a Client's needs. We call this:

### Risk Management Engineering

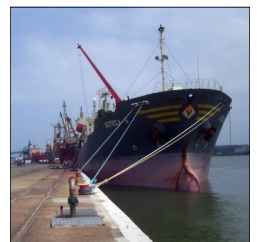
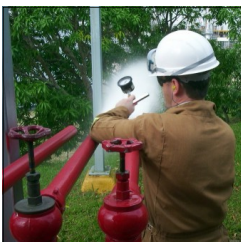
#### Risk Management Engineering Services

- Property Insurance Surveys \*
- Fire Protection Engineering \*
- Boiler & Machinery Engineering \*
- Infrared Thermographic Surveys \*
- Natural Hazards Exposure Analysis
- Business Interruption Analysis
- PSM Audits & Consulting
- Loss Investigations
- Risk Ranking / Premium Allocation

\* This Core Service is described in greater detail on the following pages.

#### Industries Served

- Oil & Gas
- Chemical Manufacturing
- Utilities
- Cement, Ceramics and Glass
- Pulp & Paper
- Steel, Aluminum, Zinc, Copper, etc.
- Distilleries, Breweries and Wineries
- Food & Grain
- Garments & Textile
- Mining & Ore Processing
- High Hazard Manufacturing of any type

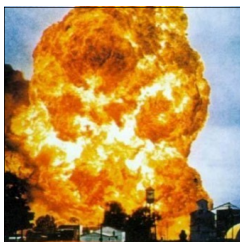


## Our Consultants

Allrisk Engineering provides global consulting services via a core staff of professionals supplemented by a tested network of specialists. This flexible approach allows us to provide specialized and dedicated account service teams in a rapid and cost effective manner. All of our consultants are experienced professionals – proven in their field. More importantly we have the right attitude. We work for you.

## U.S. Offices

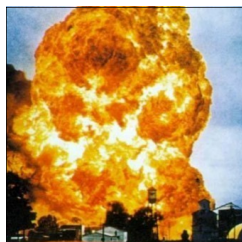
- **Auburn Office (HQ) Jesse Wilson—PE, CSP, CPCU Risk Engineer / President**  
A multi-disciplined consultant with 20+ years experience in the Property & Casualty Insurance Industry. HPR trained. Chemical / Fire Protection engineer with expertise in risk assessment, business interruption studies and process safety.
- **Paducah Office Mark Frazier—Risk Engineering Consultant**  
A Mechanical Integrity & Utility Reliability Specialist with 25+ years of experience in designing, constructing and inspecting pressure vessels and piping systems. Mr. Frazier leads our Infrared Thermographic Program and conducts Boiler & Machinery Surveys.
- **Austin, TX, USA Karen Ting—Risk Engineering Consultant**  
Risk engineering consultant with 10+ years of energy industry experience. Areas of expertise include property loss prevention, process safety, and business interruption mitigation. Fluent in Chinese and English.



## Our Consultants (continued)

### International Offices

- **Mexico City Office Thomas Ladwig—Risk Engineering Consultant**  
Cross trained in fire protection, natural hazards analysis and IR Surveys. Fluent in German, English and Spanish with 15+ years experience.
- **Montreal Office Terry Quinn—Risk Engineering Consultant**  
A Fire Protection Engineer with 25+ years experience in the Property & Insurance Industry. Fluent in French and English
- **European Office Ian Frost—Risk Engineering Consultant**  
Risk Engineering consultant with 20+ years worldwide experience in Property Loss Prevention and Corporate Risk Management. Areas of expertise include Life Sciences, Pulp & Paper, Vehicle Manufacture, Food Industries. Fluent in French and English, based in London.



## The Allrisk Way

Our job is to identify and quantify the catastrophic exposures posed to a business from all of its pure (non-speculative) risks and offer practical advice on how to mitigate these risks. The primary tool used to do this job is the Property Insurance Survey and Report.

### The Survey

We conduct a single survey of the premises to evaluate its pure risks and issue a single report. The number and type of consultants used in the survey is driven by the nature of our Client's business.

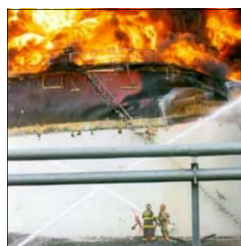
The first step in any survey is to obtain a good understanding of your business, its operations and your concerns. We evaluate businesses, not just the sprinkler systems.

The next step is to evaluate and quantify the risks associated with fire & explosion, machinery failure, loss of utilities and natural hazards, as well as loss of critical suppliers and customers.

Then we evaluate the various risk mitigation systems the business has in place for appropriateness and effectiveness.

Then and only then do we offer detailed recommendations for mitigating business risks for consideration by the Client. Widely recognized national and international guidelines and standards are used as references for these recommendations along with common insurance requirements and, of course, our years of professional experience.

All recommendations are reviewed with the local management team during the exit conference.



## The Allrisk Way (continued)

### The Report

The Allrisk Report contains all the standard “COPE” information normally included in a Property Insurance Report.

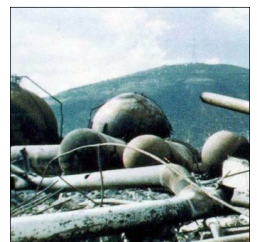
#### **-PLUS-**

- Management System Descriptions for Mechanical Integrity, Process Hazards Analysis, Safe Work Permits, and Training.
- Business Interruption Analysis: Direct, Interdependent and Contingent.
- Comprehensive Recommendations with justifications and potential alternatives.
- Recommendation Ranking and Tracking.
- Material Flow Diagrams.
- Detailed, Narrative Loss Estimates (three Fire & Explosion and two Boiler & Machinery as a minimum).
- Electronic Site Diagrams imbedded into the body of the report.

We are particularly proud of our recommendations. Allrisk Engineering recommendations go way beyond industry norm terms of detail and depth. Our consultants can justify their recommendations to local management on their engineering merits alone. We are always open to discussing and accepting alternative solutions to a problem. Risk mitigation is a collaborative process.

We realize that we must use different risk abatement strategies in different countries or industries. We know there is no single right way to get a job done.

The Allrisk Report is issued electronically to clients in Adobe PDF format. The report can also be published on our protected web site with links to any other web site you choose.



## Fire Protection Engineering Services

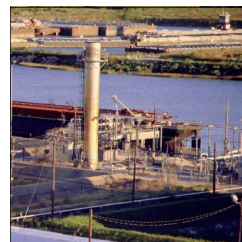
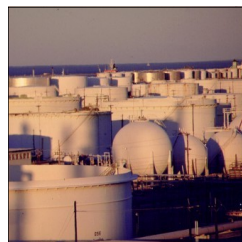
Fires and explosion losses occur at even the best of facilities. New technological advances within industrial processing and warehousing also complicate today's fire protection challenges. Our fire protection engineers will identify, quantify and evaluate these loss exposures for you and offer practical, cost effective fire protection solutions.

We do not pretend to have a big set of books with all the answers to every question. We use internationally recognized guidelines such as those provided by the National Fire Protection Association and the American Petroleum Institute. We also use local building codes and well respected property insurance data sheets to mitigate risks. We are not afraid to justify our recommendations on their engineering merits alone.

We are dedicated to providing sound, cost-effective Fire Protection Services for our clients.

Our consultants have decades of experience and are recognized experts in the development of corporate loss control programs.

If you want fire protection advice that goes beyond "fire bad—water good" please contact us.



## Fire Protection Engineering Services (continued)

### Services

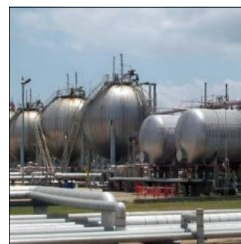
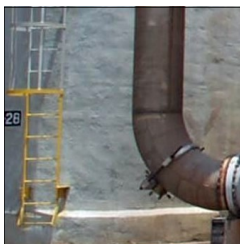
Our Fire Protection Engineering Services include:

- Extensive property, asset and hazard evaluations.
- Standards development and database management.
- Engineering analyses and drawing reviews.
- Forensic engineering, loss investigations and litigation support.
- Design support, bid package preparation and acceptance testing.
- Fire and building code analysis.
- Assistance with emergency response planning.
- Hydraulic analysis of fire protection water systems.

### Benefits

The benefits of our Fire Protection Engineering Services include:

- Complete and formal support of your existing risk management functions.
- Solutions specifically designed to meet your particular needs.
- Employment of the latest state-of-the-art technology.
- Concentration of resources on key issues through formal identification, tracking and trending of recommendations.
- An independent, third-party perspective to your fire protection challenges.



## Boiler & Machinery Engineering

Our Boiler & Machinery and Equipment Reliability Specialists have decades of field experience. They are Mechanical Integrity and Utility Reliability experts. They are not just “boiler kickers from the insurance company”.

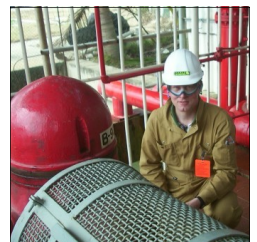
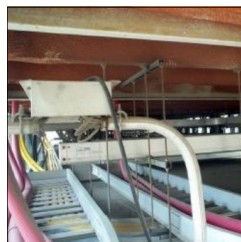
The disciplines of mechanical and marine engineering are supplemented by years of practical and text book experience with rotating equipment and electrical systems. Educational involvement in related technical and insurance areas is provided on a continuing basis.

Utility and Mechanical Integrity failures are the predominate root cause of the majority of industrial BI losses and a major contributor in over a third of all catastrophic losses in the Energy and Chemical Industries. It pays to bring in an expert.

### Services

Our Boiler & Machinery services include:

- Property Insurance Surveys.
- Mechanical Integrity Audits.
- Critical & Spared Equipment Analysis.
- Accident investigations.
- Underwriting Reports.
- Utility Interruption Exposure Analysis.
- Boiler & Machinery Policy and coverage analysis.
- Evaluation of repaired or manufactured equipment, along with non-destructive testing programs, ASME code interpretation and repair analysis.
- Probable and Maximum Foreseeable Loss Estimates.



## Infrared Thermographic Surveys

### Predictive Maintenance

Infrared Thermographic Surveys are a widely respected “predictive” maintenance and fire prevention tool. Allrisk Engineering can conduct stand-alone Infrared (IR) surveys at a location or incorporate them into the Property Insurance Survey. Our technicians will conduct the survey and leave the survey results with the Maintenance Department prior to their departure. Allrisk Engineering uses the Raytheon Palm IR Pro camera and the Honeywell IR Snap Shot camera.

### Diagnostics

Thermographic imaging is a non-contact method of detecting thermal anomalies. These anomalies, also called “hot spots”, usually *precede* equipment failure. IR studies can be done on electrical systems, refractory, steam and fluid flows, mechanical systems and building systems.

Diagnosing the root cause of the “anomalies” discovered by the camera is just as important as finding the anomalies. Allrisk Engineering evaluates and risk ranks each anomaly.



#### Contact Information

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