Infrared Thermographic Surveys

The untimely shutdown of electrical distribution equipment and primary mechanical systems often results in lost production, higher operating costs, dissatisfied customers, and lost profits. A major industrial engineering and insurance organization recently revealed that over 30% of their total losses resulted from electrical problems.

Implementing a sound infrared thermographic imaging program is potentially the single most important preventive measure. Conservative estimates indicate that an average savings of $14 is derived from each $1 invested in such a program.

As a vital electrical maintenance procedure, Infrared Thermography is an effective, non-destructive inspection technique used to pinpoint concerns in complex industrial, electrical, and mechanical systems. Global Risk Consultants (GRC) was the first major loss prevention consulting organization to recognize the value of Infrared Thermography and has been providing these services since 1985. GRC provides the expertise and technology necessary to apply this proven solution to your property loss prevention challenges. Utilizing the latest techniques and technologies, we are able to identify potential loss exposures in electrical systems, boilers and insulated vessels, motors and gearboxes, and other mission-critical equipment.

By detecting areas of abnormal temperature, GRC Infrared Thermographic Surveys include:

- Diagnosing problem areas and determining their severity in electrical systems, mechanical equipment, roofs, and building envelopes
- Pinpointing non-uniformity of temperature within process applications to resolve variances and deficiencies
- Realizing substantial and quantifiable operational cost savings through the application of infrared imaging techniques
- Training in-house thermographers to ensure they remain up-to-date on the latest technological advances in infrared applications
- Severity and impact ratings for each finding
- On-site report delivery for immediate action
- Summary of findings, equipment inventory listing, trending, and business impact analysis, all available through our online data management system
The benefits of GRC Infrared Thermographic Surveys include:

- Prevention of emergency maintenance
- Detecting abnormal or unexpected thermal patterns which may cause equipment failure
- Infrared and airborne ultrasound technology to identify ‘invisible’ threats
- Fewer business interruptions from equipment downtime
- More efficient production and energy usage
- State-of-the-art infrared imagers and digital cameras
- Minimal potential damage to equipment and facilities
- Non-contact, non-destructive analysis of electrical and mechanical equipment
- Consistent global technical expertise and work product
- Formal comprehensive reports that not only locate the problem with extreme precision but also recommend cost-effective solutions
- Stewardship reports identifying findings, trends, and recommendations
- Identifying critical loss exposures and their severity/impact
- Databasing of findings for benchmarking
- Multilingual capabilities
- Improved overall productivity and profitability

With our extensive experience in infrared thermographic imaging programs, we assist clients in a wide array of industries including manufacturing, municipal and institutional operations, and conventional and nuclear power facilities.

As a complement to Infrared Thermography, our consultants use Ultrasonic Testing as an additional tool. Airborne ultrasonic detection is an excellent tool for identifying critical loss exposures such as corona and internal and external tracking/arcing problems in high voltage equipment that are not detectable using infrared imaging.

There are two ways in which a fault can be assessed and it is important to understand the differences between the severity of a finding (also known as a fault) and the impact of a finding.