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Risk A/T® Work

"An ounce of prevention is worth a pound of cure." Benjamin Franklin 1736

We are pleased to introduce the next edition of **Risk A/T® Work**, a forum dedicated to sharing safety and loss control tips with our brokers and insureds. **Risk A/T®** is our proprietary risk management approach which promotes informed risk analysis based on two behavioral factors — **A**ptitude and **T**olerance.

ABOUT US

Sompo International Insurance works through a global distribution network of retail and wholesale brokers and MGUs to provide high-quality and responsive services to a broad range of clients from large multinationals to small businesses. We offer diverse specialty capabilities across a broad range of products and industry verticals.

*If you would like to subscribe to **Risk A/T® Work**, please contact Victor Sordillo at vsordillo@sompo-intl.com*

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Infrared Thermography - Electrical Inspections

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According to the National Fire Protection Association (NFPA) report, "*Fires in U.S. Industrial or Manufacturing Properties*," municipal fire departments respond to an estimated 37,910 fires at industrial or manufacturing properties annually. The leading causes of fires at these facilities are electrical distribution and lighting equipment issues that go undiscovered until it is too late. A fire's impact often goes beyond the repair and replacement costs of damaged equipment. The combination of smoke, water, and firefighting efforts, along with potential spoilage, can be devastating, requiring extensive and costly remediation that can fully or partially shut down your business for an extended period – something you may not be prepared for. Additionally, the risk of injury or loss of life is a real concern whenever there is a potential for electrical failure resulting in fire. So how can you limit the risk of electrical fires? One very effective way is through the use of infrared technology.

What is Infrared Thermography?

Infrared thermography is a non-contact and non-destructive testing method that utilizes an infrared camera to detect, display, and record thermal patterns and temperatures across the surface of an object. Infrared thermography can be utilized in any situation where knowledge of thermal profiles and temperatures will provide meaningful data about a system, object or process. Thermography is widely used across the insurance industry as a vital part of predictive maintenance programs, ensuring safe and reliable equipment, as well as a dependable facility infrastructure to support operations.

All electrical equipment radiates heat. Infrared cameras are sensitive to thermal radiation which can detect and measure the temperature differences between surfaces. The cameras then convert the information and displays it as a visible image where the heat signature can then be analyzed.

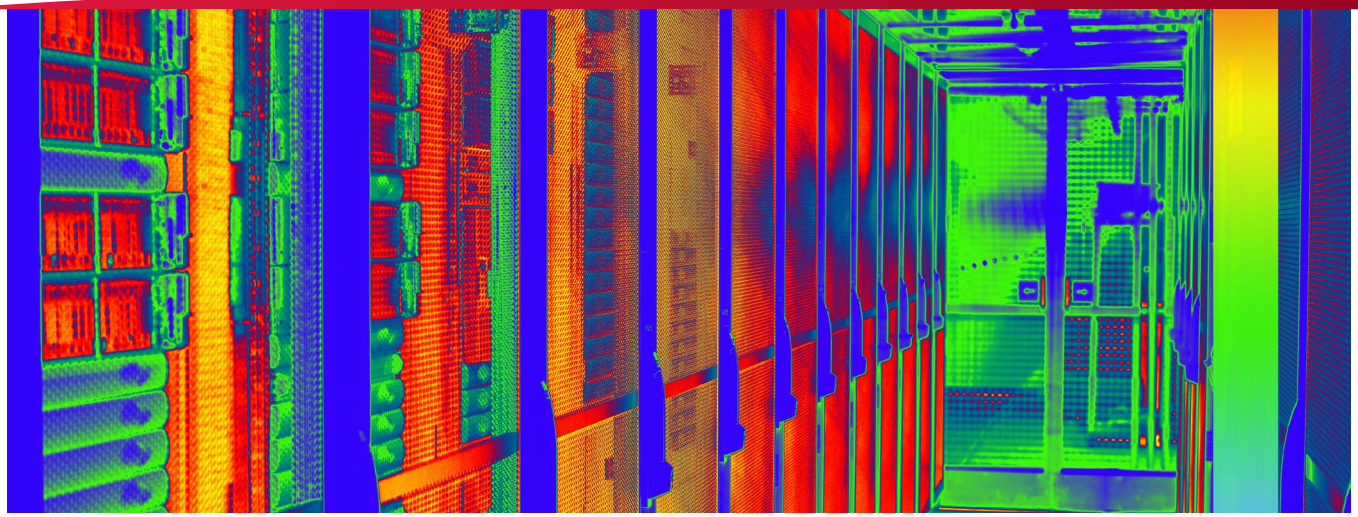
Examples of equipment and systems that can benefit from an infrared thermography program include:

- Electrical systems (e.g., circuit breakers, panel boards, disconnects, motor controls and transformers)
- Emergency equipment such as transfer switches, generators and uninterruptable power supplies (UPS)
- Rotating equipment such as generators, compressors, pumps and motors
- Manufacturing equipment
- Photovoltaic systems (solar panels)

Why Infrared Thermography?

Infrared thermography quickly, accurately and safely locates potential problems through thermal anomalies prior to equipment failure. Heat identified in the infrared images detect hot spots that could progress into more severe events, such as electrical arcing, operating inefficiencies, and fire ignition.

Significant savings can be realized when infrared thermography is included in a facility's electrical preventive maintenance program. This is a result of infrared technology's ability to identify potential component failures, thus preventing the much greater costs associated with manufacturing downtime, production losses, power outages, and fires. Additionally, most deficiencies found during an infrared inspection are usually not costly to fix with repairs usually consisting of de-energizing, cleaning, and applying proper torque to electrical connections.



Results from an infrared inspection provide a real-time visual record and identification of baseline thermal signatures for key electrical equipment. Heat identified in the infrared images can be used to measure, monitor, and evaluate thermal performance, while also allowing the proactive resolution of items that can create operational inefficiencies and sources of potential fire ignition.

How Often Should Infrared Thermography Be Performed?

The NFPA's "*70B - Recommended Practice for Electrical Systems Maintenance*" suggests infrared inspections of energized electrical systems be performed annually. However, site-specific conditions may dictate shorter intervals for some equipment or facilities. Additionally, infrared inspections should be completed upon installation of new equipment or when any changes in environmental, operational or loading conditions occur.

By implementing infrared thermography into your safety program, building owners and managers will be better positioned to protect their properties and people from catastrophic losses due to electrical fires. For more information, please reach out to your Sompo GRS Risk Control Specialist or contact us at 1 877 667 5733 or GRSRiskControlQuestions@sompo-intl.com.