



**The Hartford Steam Boiler  
Inspection and Insurance Co.**  
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## HSB THERMOGRAPHY SERVICES

They say a picture is  
worth a thousand words.



This one is worth  
thousands of dollars.

HSB Thermography Services combines the knowledge of our personnel with that of modern infrared detection technology to provide information to our customers. All objects emit heat which is in the form of electromagnetic radiation. With the aid of electromagnetic radiation. With the aid of an infrared camera, that heat can be detected and measured. By detecting and measuring temperature differences from one surface of an object to another, our skilled technicians are able to diagnose possible problems and provide meaningful recommendations.

### EVALUATING SYSTEMS & EQUIPMENT

Equipment does not need to be shut down – plant can operate while scanning is performed. Areas scanned include, but are not limited to:

- Electrical switch gear, breakers,  
bus connections, and contacts
- Transformer connections
- Motor and generator connections,  
windings, feeders and excitors
- Bearings
- Friction in drive gears and drive belts
- Refractory systems (boilers, kilns,  
molten material containment, etc.)
- Steam traps and piping insulation

### PREVENTING PROBLEMS

Thermography can detect a variety of conditions that can lead to problems, including:

- Friction • Loose connections
- Poor metallurgy • Insulation breakdown
- Improper liquid levels
- Tank levels and insulation problems

### SERVICING INDUSTRIES

Following is a sampling of industries we service:

- Chemical • Electrical Utilities
- Manufacturing • Mining • Aerospace
- Food Processing & Storage
- Schools and Universities • Hospitals • Hotels
- Office buildings • Shopping Malls

## CHOOSE HSB THERMOGRAPHY SERVICES FOR...

### CUSTOMER FOCUS

We work with you, the customer, to clarify your needs and goals before any work begins. Your satisfaction is our primary concern.

### VALUE

Industry sources show that if corrective action recommendations are followed, monetary savings can be *twenty times* the initial cost of the infrared scan.

### RESPONSIVENESS

HSB Personnel are distributed throughout the major cities of the United States, and services are available in Europe and Asia as well.

### KNOWLEDGEABLE STAFF

By combining the use of infrared as a tool, with their knowledge of equipment and risk, our evaluators are more than "hot spot" locators, and can provide information that goes beyond routine recommendations.

### RECOGNITION

HSB has been conducting infrared inspection since 1983. We can provide service to practically any type of business. Our program meets the American Society of Nondestructive Testing Practices for Thermal/Infrared Testing Certification, and we utilize HSB certified thermographers..

## REAL WORLD SUCCESS STORIES

### SUGAR CANE MILL

Annual thermography of the electrical switch gear discovered a hot connection within an electrical breaker with supplied a critical motor on the mill processing line. Regular plant operation could not be interrupted. By discussing the problem with mill maintenance personnel,

HSB was able to arrange for the electrical crew to replace the faulty electrical breaker during a scheduled outage, thus avoiding a four-day shutdown which would have resulted in a loss of \$150,000.

### HIGH RISE OFFICE BUILDING

Several hot spots were found during the annual thermography survey. Each spot was identified as one that could result in subsequent damage to adjoining components, potentially providing manpower loss to over 25% of the building, including at least one elevator. By making the repairs during the evening, when most tenants were not working, there was no interruption of service, and repair costs were minor. Had the repairs not been performed, there was a strong likelihood of a power interruption that would have required at least one full work day to repair.

### MANUFACTURING PLANT

In an infrared survey of the plant's electrical equipment, the utility owned transformer – which supplies the only source of electrical power to the location – showed an extremely high temperature reading. Our insured immediately notified the utility company, which was able to make the needed repair without causing a power interruption. Had the loose connection gone undetected, the loss of electrical power to the plant would have resulted in thousands of dollars in spoiled product and hundreds of man-hours of cleanup before production would have been restored.

For More Information Contact

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