



LOSS CONTROL GUIDE

INFRARED THERMOGRAPHY

Infrared Thermography Surveys can detect problems and avoid costly fires that lead to property damage and business interruption losses. Pennsylvania Lumbermens and Indiana Lumbermens Mutual Insurance has recently developed the capability to help customers identify problems and take necessary corrective actions to prevent costly property losses. PLM and ILM's Loss Control Services staff of certified Level-I Thermographers, is actively involved with conducting IFR surveys at customer locations. The completed surveys identify elevated temperature sources when scanning low voltage electrical equipment throughout customer buildings and operations. The completed thermographic surveys detect elevated temperatures that are often invisible to the naked eye. Thermography allows corrective action to be taken before electrical, mechanical or process equipment fails.

PLM and ILM have prioritized the completion of Infrared surveys based upon our experience with related fires within the "Wood Niche" marketplace. Our review of fires has indicated that the majority have occurred within sawmills, pallet shops, and wood manufacturing operations. Based upon loss experience, the Loss Control Services Department at Pennsylvania and Indiana Lumbermens has prioritized the completion of Infrared Thermography surveys. We are actively completing site surveys identifying elevated temperature exposures primarily within low voltage electrical systems.

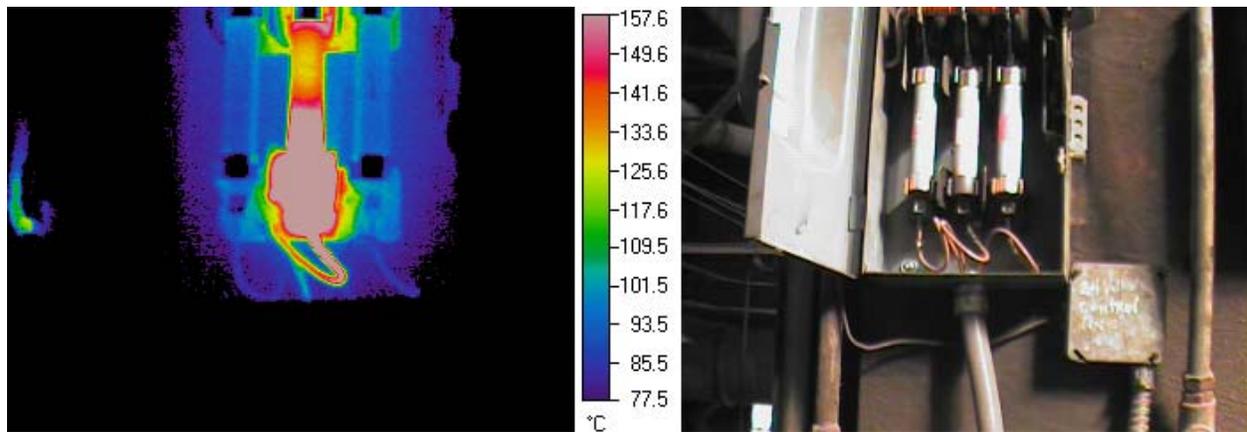
The Infrared Thermography survey enables PLM and ILM Representatives to "see" and "measure" thermal energy emitted from objects. Thermal, or infrared energy, is light that is not visible because its wavelength is too long to be detected by the human eye and is part of the electromagnetic spectrum that we perceive as heat. Because the thermal energy is invisible to the human eye it is impossible to identify potent problems through visual inspection. The higher the object's temperature, the greater the IR radiation emitted. The completion of Infrared surveys allows us to "see" what our eyes cannot.

The infrared surveys offered as a value added service to PLM and ILM policy holders, provide a direct and immediate property loss controlling strategy. By partnering with brokers and customers, a plant or facility thermographic scan is usually completed in a single day. When completing the IFR survey, plant electricians open and close electrical panels throughout the facility enabling the Loss Control Services Representative to have direct line of sight to the electrical switchgear and apparatus. The process of completing scans of open electrical switchgear quickly identifies hot spots that are in question of being overloaded or imbalanced circuits or equipment. These "Hot Spots" are in danger of failure either in the short term or capable of immediate failure producing catastrophic property events.

The following example of a thermal energy scan that was recently completed for a PLM customer, graphically points out an identified problem with a three phase low voltage electrical

circuit. Visual inspection of the electrical box indicated that there is nothing wrong. The thermal image of the box identified that the "C" phase of the box was in excess of 400 degrees f. This circuit was in a condition of imminent failure and required prompt action to prevent a fire in either the electrical equipment, the production machinery served by the electrical circuit, or both.

The Loss Control Services staff at Pennsylvania Lumbermens and Indiana Lumbermens Mutual Insurance Companies is continually working to demonstrate value with our customers. By identifying problems through the Infrared Thermography scanning program customers win by controlling problems before they result in fires and business interruption losses.



To learn more about Infrared Thermography or the IFR scanning program at PLM and ILM please contact the Loss Control Services Department at 1.800.752.1895 or via email at CustServ@plmins.com or CustServ@ilmgroup.com.

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