



# Pennsylvania Lumbermens Mutual Insurance Company

## Infrared Thermography at PLM

Infrared Thermography Surveys can detect problems and avoid costly fires that lead to property damage and business interruption losses. Pennsylvania Lumbermens Mutual Insurance has recently developed the capability to help customers identify problems and take necessary corrective actions to prevent costly property losses. PLM's Technical 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 has 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 Technical Services Department at Pennsylvania 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 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 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 PLM Technical 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

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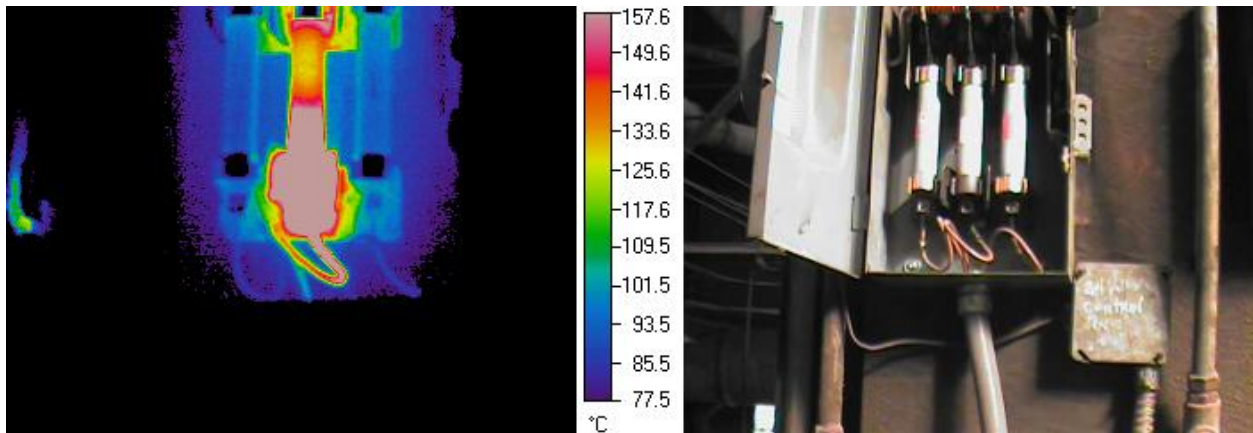
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circuit. Visual inspection of the electrical box indicated that there is nothing wrong. The thermal image of the box identified that the “C” phase of the box was in excess of 400 degrees f. This circuit was in a condition of imminent failure and required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

The Technical Services staff at Pennsylvania Lumbermens Mutual Insurance Company 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 please contact:

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