

INFRARED THERMOGRAPHY

Infrared Thermography Surveys can detect problems and avoid costly fires that lead to property damage and business interruption losses. The completed surveys identify elevated temperature sources when scanning low voltage electrical equipment throughout 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.

Electrical Systems are often the cause of fires that have occurred within sawmills, pallet shops, and wood manufacturing operations. Based upon industry loss experience, insurance companies are requiring the completion of Infrared Thermography surveys.

The Infrared Thermography survey enables you 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 provide a direct and immediate property loss controlling strategy. A scan of a plant or facility thermographic is usually completed in a single day. When completing the IFR survey, plant electricians open and close electrical panels throughout the facility enabling the thermographer 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 at a facility, 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.

