

Focused on Fire Prevention

Electrical infrared testing allows early detection of potential hazards

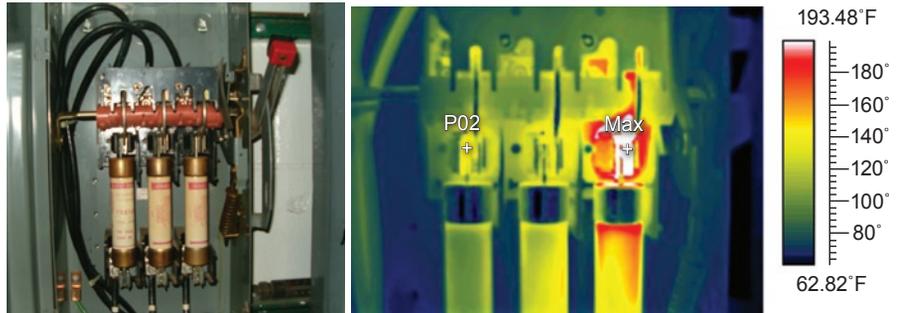
By Jeffrey L. Gadd | Images courtesy of Vision Infrared Services

Annual infrared testing is not only proactive; it also is a good way to help prevent an avoidable electrical fire. Infrared testing of electrical systems has been in use for several decades now but in the last 10-15 years its use has increased dramatically. There are many reasons for the increase, such as manufactures trying to reduce downtime, insurance company pressures and NFPA 70B, to name a few. As a result many facilities have avoided catastrophic electrical failures because problems were detected with infrared.

As seen with infrared image (far right), this disconnect has a problem brewing but looking at the visual image you would never know.

The industrial/commercial insurance companies are fully aware of the benefits of infrared testing. Some insurance companies often will encourage their customers to have annual infrared testing performed, meaning they could offer discounted premiums or on the other hand raise your premiums if you don't comply. Some insurance companies believe in infrared testing so much that they will do the testing free of charge. Every company should contact their loss prevention agent to see what their policy is. If they don't perform the testing surely they can put you in contact with a qualified infrared service company. The bottom line is that infrared inspections reduce an insurance company's potential for loss so it's not hard to understand why they are such advocates.

The following is an excerpt from an article offered on Hartford Steam Boiler (HSB) Insurance Company's website at www.hsb.com, which I think speaks volumes: "An infrared survey can detect a problem before it manifests itself into a costly failure. It is very common to find a loose wire that can be repaired for less than \$100. But, if it were allowed to fail, the cost could skyrocket to thousands of dollars for equipment, repair



PACKING HEAT This electrical disconnect looks normal from the outside (left), but an infrared view reveals trouble brewing inside.

or replacement. Or worse, an electrical failure can lead to fire. Loss of life and injury are the ultimate price. In addition, a fire can lead to damage that can render the building unfit for occupancy. Losses can mount when businesses are unable to operate, and building owners lose income."

The National Fire Protection Association (NFPA) believes in infrared inspections as well. The NFPA publishes the National Electric Code (NEC) and many other publications including NFPA 70B Recommended Practice for Electrical Equipment Maintenance. NFPA 70B Section 21.17 speaks specifically to infrared testing, frequencies and the like. When the author of the NEC and many other life/safety publications is recommending infrared testing, all property owners should take notice.

Infrared inspection of electrical devices is a powerful predictive maintenance tool. If you are already having infrared inspections performed at your facility, keep up the good work. If you are not, I hope your company will realize that all the proactive manufactures, the NFPA and most likely your insurance company can't all be wrong. There are many success stories of preventing catastrophic electrical failure and/or fire, but equally there are many other stories of failure or fire that could have possibly been prevented. **P**

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