

## A MAJOR CORPORATION'S COMMITMENT TO PROTECT ELECTRICAL ASSETS AND THE DEVELOPMENT OF IEEE P2969 CONTINUOUS THERMAL MONITORING STANDARD

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Maintenance of electrical switchgear and motor control centers is critical to elevating safety and assuring facilities' uptime in all industries. Key components in every company's electrical distribution include the connections and terminations of energized electrical conductors.

During prolonged operation, electrical connections, splices, and cable terminations are subject to thermal expansion and contraction that could loosen connections as well as corrosion that will affect their operating temperatures. Poor terminations will cause heat generation and higher operating temperatures. Deteriorating terminations left unchecked may fail, resulting in equipment failure and higher risks for personnel safety.

In an increasingly arc-flash conscious world, personnel exposure to energized equipment is elevating costs and concerns for worker safety. So, the shift from labor intensive maintenance practices to safer, more efficient, less costly data collection with options for automated data collection is increasingly popular.

This paper explores a specific corporation's efforts to elevate reliability of electrical distribution throughout their operations. This not only includes manufacturing and mill operations, but also considers product distribution and other critical business operations.

This paper will also review a new IEEE Standard for continuously thermal monitoring to measure the temperature of equipment connections as an alternative to IR Thermography surveys. This will lead to reviewing advancing technologies to capture, transfer and compile temperature data for analysis, trending, and predictive maintenance for personnel safety and equipment reliability.