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With the help of new pre-verification devices, coming up with the right answer has gotten safer, easier and much quicker for one Arkansas paper mill.

Electrical safety demands that we know the right answer to one question: "Is there voltage?" Since a wrong answer can have life-threatening consequences—like arc flash, for example—it's important for personnel working with electrical equipment to be capable of answering this question with unerring certainty.



When the NFPA published its Standard for Electrical Safety in the Workplace in 2000, the document generated essential changes in the way both electrical and mechanical maintenance is performed across today's industrial and commercial facilities. There is no doubt these changes have been positive since injuries and deaths caused by electrical accidents have been significantly reduced.

As with many new regulations, productivity in some cases may have been adversely affected. Consequently, some companies have been asking another question: "Can we retain the reduction in injuries and deaths we witnessed because of NFPA 70e while regaining the level of productivity we experienced prior to NFPA 70e?" Grace Engineered Products says "yes." As one paper mill in Arkansas discovered, pre-verifying electrical isolation is an excellent way to safely have your cake and eat it too. In an effort to boost employee safety during its Lock-out Tag-out procedures (LOTO), the mill ordered several of Grace's ChekVolt™ Non-Contact Voltage Portals from a local electrical distributor. When installed in the door of an electrical panel, ChekVolt provides maintenance personnel with a no-touch voltage portal on the outside of a grounded metallic electrical enclosure. The device's interface allows for the use of any non-contact voltage detector

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pen to pre-verify electrical isolation before opening an electrical panel. This pre-verifying capability affords an additional safety barrier between the maintenance person and hazardous voltage. Moreover, as this Arkansas facility discovered, the Chekvolt also helped increase productivity—significantly.

Prior to installing the ChekVolt portals, maintenance personnel noted that the mill's mechanical LOTO procedures took 45 minutes for each MCC room. However, after installing the device portals in each bucket of two MCC rooms, the time required for the LOTO procedure was reduced from 45 minutes to 12 minutes in the first room, and from 45 minutes to 15 minutes in the second. This 70% reduction was possible because using the ChekVolt allowed personnel to combine and even eliminate some procedures.

In the past, when maintenance work was performed on an electrical enclosure at the mill, an electrician would have to be called to verify from where power was coming. Next, the electrician would have to throw the disconnect switch, put on PPE, and open the panel door to verify electrical isolation with a voltmeter. By pre-verifying electrical isolation with ChekVolt, these steps now are performed in seconds rather than minutes—and the panel door is never opened.

According to Grace Engineered Products, any company that routinely performs mechanical LOTO procedures can enjoy these same types of time-saving benefits with the help of ChekVolt. Being able to correctly answer that all-important "Is there voltage?" question without sacrificing safety for productivity, or vice versa, is something everyone can live with.

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