



MSHA's Accident Prevention Program Safety Idea



Non-Contact AC Voltage Detectors

Steven Jay Hagedorn is an MSHA Metal/Non Metal inspector. He writes:

I was inspecting a radial stacker. The belt was not running. I noted that an S/O power cable had...damage to the outer jacket. Since the stacker was not running, I thought it was de-energized {WRONG}. The cable was supplying power to a disconnecting device in a branch circuit to the starter. The starter circuit is de-energized but the cable is still energized. I was so close to moving it to take a photo, but I stopped and checked the power cable. It Was HOT. I could have been dead or badly burned.



Steven carries a non-contact AC voltage detector on his inspections just for this purpose. This sensitive electrical sensor will signal when an electrical circuit is live in a conductor or even in the metal equipment frame. By determining if the power has been disconnected prior to touching an electrically powered machine or cable, Steven saved himself from a dangerous electrical shock, burn or even an electrocution. These devices are relatively inexpensive (\$10 to \$75) and are great for checking fuses, breaker panels, power outlets, cable splices, load break connectors, transmission lines, etc. The only drawback is that they do not detect DC current. A search on the internet for a non-contact voltage detector will quickly list hundreds of suppliers who carry these devices. MSHA and Steven both believe they can be lifesavers.

MSHA note: Always assure:

- the testing device is rated for the circuit being tested
- properly rated electrical gloves are worn
- that the device is tested on a known live circuit prior to each use

MSHA extends a thank you and a tip of the hardhat to
Steven Hagedorn of Vacaville, CA.
a winner of a limited edition sticker and patch.

If you have a tip you would like to pass on, you can email it to
zzMSHA-MinersTips@dol.gov.

If your tip is selected, you will receive credit in this space.

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