

SafetyToolboxTalks

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Right Hardhat for the Right Job

A 40-year-old journeyman lineman working in Alaska got too close to a 17,400-volt charged circuit while replacing cables under a switchcabinet - he didn't live to tell the story. His head either touched the switch or got close enough to allow electricity to arc between the energized post and his head.

The outcome might have been much different if he'd been wearing a dielectric (non-conducting) Class E hardhat. But his "head protection" consisted of a cloth cap, which offered no protection at all.

In their report on the fatality, investigators noted that foreman-level and journeyman-level electricians and linemen are among the most experienced and knowledgeable workers in the electrical contracting industry, receiving extensive training in electrical safety. However, failure to use required protective equipment accounts for 55 percent of utility linemen fatalities.

SELECT THE RIGHT HARDHAT

So what does this have to do with you? Perhaps more than you realize. Even if you're not a lineman or electrician, your job could expose you to electrical hazards. And if you aren't wearing a non-conducting hardhat and other suitable personal protective equipment, you could be gone in a flash.

All three classes of hardhats protect the head against injury from moving or fixed objects, but only Class E and Class G hardhats also protect against electrical hazards. If your task involves the potential risk for electrocution through head contact with electrical conductors, check the label inside your hardhat.

Class E (electrical) provides the greatest protection against electrocution, as it is rated to protect against exposure to high-voltage electrical conductors, to a maximum of 20,000 volts.

Class G (general), the most common type of hardhat, has been tested to provide protection against low-voltage conductors, to a maximum of 2,200 volts.

Class C (conductive) hardhats provide no electrical protection.

DON'T MESS WITH YOUR HARDHAT

Ray Mullin, vice-chair of the Canadian Standards Association (CSA) Z94.1-05 Industrial Protective Headwear Standard, says it is important to be aware of the dangers of modifying hardhats or wearing winter liners. It could wipe out any of the protection it is designed to provide. In particular, do not:

- Place metallic stickers on the shell of a non-conducting hardhat;
- Drill a hole into the shell of a non-conducting hardhat;
- Install a winter liner containing a metal zipper or studs into a non-conducting hardhat;
- Wear earmuffs containing metal when using a non-conducting hardhat;
- Use paint, paint thinner or certain cleaning products on a non-conducting hardhat (instead, wash the hardhat with soap and water).

Choose the right hardhat for your job. But remember, staying safe is not simply a matter of using your hardhat. You must use your head, too.