

TOOLBOX TALKS

Electrical Arcs & Blast

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TOPIC: Electrical Arcs & Blasts

Electrical arcs and blasts are a potential danger when working with most electrical devices. Depending on the voltage and the distance from the main power supply, arcs can cause severe injury, third-degree burns and even death.

The Causes

- An arc is created by a short-circuit, most often when non-insulated tools come in contact with a live electrical current.
- The heat of an electrical arc can exceed 10,000°F—which is 1,000°F greater than the surface of the sun.
- The blast which accompanies an arc is created by the superheating of air in the vicinity. The force produced can equal the force of an exploding bomb.

Possible Outcomes

- Cardiac arrest
- Muscle, nerve, and tissue destruction
- Thermal burns
- Death

Safety Tips

- Make use of personal protective clothing, such as flash suits, face shields and appropriately insulated gloves.
- Use insulated tools.
- Always work under the direct supervision of a trained electrician.

Discussion Date: _____

Employee Participants:

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