

# Safety

# TOOLBOX TALKS

A ready-to-use training lesson to drive home the essentials of safety.

A free bonus supplement from  
**SAFETY 21**  
FOR SUPERVISORS

## Watch out for shock hazards

### ▶ Meeting Goals

Participants will learn some key points about shock hazards, and what they can do to protect themselves.

### ▶ Introduction

An experienced electrician forgets for a moment about nearby live wires, and draws out a length of steel measuring tape. It connects, shocks and kills him. That's just one example of how momentary inattention can cause disaster when working around electricity. Today, we'll cover some keys for avoiding shock hazards.

### ▶ Lesson Content

Some things to keep in mind:

- 1. A circuit breaker will not protect you from shock.** Ten amps can kill you, so a circuit breaker that trips at 20 amps doesn't do you much good. Remember: The circuit breaker protects the system, not you.
- 2. It doesn't take much power to freeze you in place.** Six milliamps on a 120-volt line seals your grip on a conductor. And the longer electricity shocks you, the more harm it does.
- 3. Electricity doesn't pay attention to the drawings.** Assume that a wire is live. Test it first to make sure. Even if you've locked out equipment, wires may conduct electricity from a secondary source or backfeed. Also, de-energize test equipment, even after a lockout, for the same reason.
- 4. Dirty and damaged electrical cords deliver shocks.** Cords pick up conductive materials easily. Look for grime, grease, magic marker writing, or anything that might conduct electricity. Wipe cords off with one cloth and clean them with a second. Paints, solvents and everyday use can damage insulating materials in cords, so be on the lookout for damage. Replace damaged cords, even if they're "repaired" with tape.
- 5. When routing electrical cords, steer clear of sharp objects and water sources.** Pull a cord tight to make sure you don't pull it taut later and find the sharp edge that way. Walk the route to hunt for water.
- 6. Your safety gear and clothing shouldn't conduct electricity.** Paint, magic marker writing and even stickers on a hard hat can create a conductive path and shock hazard. Make sure you don't have conductive grease, oils or water on your PPE and clothing. Wear safety glasses, hard hat and the appropriate shoes.
- 7. Avoid wearing polyester close to your skin.** Electricity tends to make polyester or other synthetics melt to your skin. Choose cottons, wools or other natural fabrics for undergarments and socks.

Find out how much of the material participants really learned. Photocopy and distribute the quiz on the other side of this page. Grade the quizzes using the answers to the right.

**Instructions:** Use Toolbox Talks to spark safety discussions. On the flip side is a quiz to make sure participants retain the valuable information.

Session Date

Supervisor/Instructor

Attendee List:

### QUIZ ANSWER KEY (Quiz on other side)

1. True. A few marks may be safe, but your best bet is to avoid writing on hard hats altogether.
2. No.
3. True.
4. E. All of the above.
5. True. Systems are vulnerable to connection from a second source and backfeed.
6. True.
7. False.