

## TOOLBOX TALK

# Electrical Safety

### WHY THIS MATTERS

Electrocution is one of the 'Fatal Four' causes of death in construction. Contact with electrical energy kills approximately 160 workers every year. Even low-voltage shocks can cause severe burns, cardiac arrest, and death. Every electrical incident is preventable.

**160+**

Electrical deaths per year at work

**50V**

Voltage that can kill a person

**100%**

Electrical deaths are preventable

## 3 Key Principles of Electrical Safety

Follow these principles every time you work near electrical energy:

**1**

### LOCKOUT/TAGOUT (LOTO)

De-energize equipment before work. Lock the energy source and tag it. Verify zero energy before touching.

**2**

### SAFE WORK DISTANCE

Stay at least 10 feet from overhead power lines. Only qualified workers may work on energized equipment.

**3**

### USE PROPER PPE

Insulated gloves, safety glasses, arc-rated clothing, and insulated tools. Match PPE to voltage level.

## Before You Start — Quick Checklist

- Has the energy source been identified and de-energized?
- Is Lockout/Tagout applied and verified?
- Are you using insulated tools and proper PPE?
- Is the work area dry and free of standing water?
- Are overhead power lines identified and safe distance maintained?
- Is a qualified electrician available if needed?

## Electrical Equipment Inspection — Before Every Use

- Cords:** Check power cords for cuts, fraying, exposed wires, or damaged insulation. Replace if damaged.
- Plugs:** Inspect plugs for bent or missing prongs, cracks, or burn marks. Use 3-prong grounded plugs.
- Tools:** Verify insulation on tools is intact. Never use tools with cracked or damaged handles.
- GFCIs:** Test Ground Fault Circuit Interrupters before each use. Press TEST then RESET buttons.
- Panels:** Never remove panel covers. Check for proper labeling. Keep 3 feet clearance at all times.
- Extension:** Use rated extension cords only. Never daisy-chain multiple cords. Don't run under carpets.

### Common Mistakes That Kill

- ✗ Working on energized circuits — always de-energize and verify LOTO first
- ✗ Using metal ladders near power lines — use fiberglass ladders instead
- ✗ Removing the ground prong from a 3-prong plug to fit a 2-prong outlet
- ✗ Working in wet conditions without GFCI protection
- ✗ Assuming a circuit is dead without testing — always verify with a meter

### Safety Tips to Remember

- ✓ Treat every wire as live — test before you touch, every single time
- ✓ Water and electricity kill — never work in wet conditions without GFCI
- ✓ Lockout/Tagout is not optional — it is the law and it saves lives
- ✓ Know your limits — only qualified electricians should work on electrical systems
- ✓ Report damaged cords and equipment immediately — don't use, don't ignore

## Discussion Questions for Your Team

1. What electrical hazards exist on our current job site?
2. Do you know where the nearest electrical panel and shut-off is?
3. When was the last time you tested a GFCI before using it?
4. What would you do if you saw a damaged power cord on site?
5. Can you explain our Lockout/Tagout procedure?

### TOOLBOX TALK SIGN-OFF

Date: \_\_\_\_\_ Supervisor: \_\_\_\_\_

Project: \_\_\_\_\_ Location: \_\_\_\_\_

Attendance sheet attached:  Yes