

# TOOL BOX TALKS

## Roofing Electrical Safety

All construction workers should be aware of electrical hazards on the jobsite. When it comes to electrical safety, there is no room for carelessness or complacency. Electric shock, even by seemingly “lower” voltages like 120 V can cause burns and even death. This document will discuss the precautions rooftop employees need to remember when working with electric tools. Preventing jobsite electric shock is crucial – follow these safety tips:

### WORKSAFE TIPS

#### ROOFTOP ELECTRICAL EXPOSURES

- Overhead power lines
- Extension cords
- Powered hand tools and welders
- Building wiring

#### THE PHYSICAL EFFECT

- An electrical burn or shock can occur when a body part completes an electrical circuit.
- Electric charge flows through the body to ground.
- It does not take high voltage to injure or kill— just 50 milliamps, less power than it takes to run a drill, can paralyze muscles (which cause a locked grip on tools, etc.) or stop someone from breathing.
- High voltage electricity can jump, or arc, through the air without even touching the power line!

#### OVERHEAD POWER LINES

- Survey the jobsite for overhead power lines.
- Look in alleyways, tree lines and between houses.
- Look for electrical poles or ground-level transformer boxes.
- Look for power service leading into homes.
- Survey for power lines before raising ladders.
- Survey the area before using off road forklifts.
- Survey the area before lifting a dump truck bed.
- Don't erect scaffolds near power lines/entrances.
- Treat all electrical lines as if they are energized.
- Stay 10 feet away from power lines.
- Use fiberglass ladders when performing electrical work—aluminum and wooden ladders can conduct.
- Lines can sway in wind and sag on hot days.
- Place signs that warn equipment operators about overhead power lines.

#### A TEAM EFFORT

- Jobsite employees should be trained to recognize electrical hazards.
- Roofers must look out for each other, and warn coworkers when an electric hazard is discovered.

#### MORE THAN JUST OSHA COMPLIANCE

- Regardless of whether or not OSHA is watching, employees must work together to eliminate electric shock hazards.
- Adhere to safety rules.
- Know how to inspect and use electric tools.
- Don't attempt to operate machines unless you've been trained and authorized to do so.
- Make a commitment to your personal safety, and to keep an eye out for your coworkers.

#### REMEMBER:

- A circuit breaker protects the circuit, and a GFCI protects employees.

#### EXTENSION CORDS

- Do not allow machines to run over cords.
- Do not remove the ground prong.
- Do not attempt to repair damaged cords – discard old, worn cords.
- Vinyl tape is not an approved repair to cords with damage to conductors.
- Use a GFCI when drawing from a temporary electrical service.
- Extension cords cannot be “jobsite made.”

#### POWER TOOL SAFETY

- Inspect tools before use.
- Inspect the cord and connector for damage, frays, missing ground prong or filed ground paddle.
- Tag damaged, unsafe tools out of service.