SAFETY TOOLBOX TALK

Week 44: Electrical Safety—Testing for Hazards

INCIDENT INFORMATION — *Why is it important to be safe around electricity?*

The electrical current in a regular construction site, business and home has enough power to cause death by electrocution.

- 9760 workers were injured and 739 died from exposure to electricity between 2012 and 2016.
- By occupation, workers in construction and extraction occupations (47%) and installation, maintenance, and repair occupations (22%) accounted for the largest number of deaths.
- 80% of fatal injuries from direct exposure to electricity occurred while workers were engaged in constructing, repairing, or cleaning activities. Workers who were fatally injured as a result of indirect exposure to electricity were most often engaged in construction, repairing, or cleaning activities (37%) or were using or operating tools or machinery (32%) at the time of injury. The four most common injuries that occur include electrocution, electric shock, burns and falls.

REPORTED CAUSES — *How do you protect yourself from being exposed to energized wires?*

Electrical hazards on the job can be avoided by following approved NFPA 70E and OSHA guidelines. Attention to safety is the important first step to an effective safety program. Skilled employees, trained in electrical safety procedures, should make sure they understand and follow safety precautions. Those not trained to recognize and avoid electrical hazards, or not under the supervision of those qualified in electrical safety procedures, should avoid contact with electrical equipment and systems. You need to:

- Understand the construction and operation of the electrical equipment and the hazards involved.
- Identify all possible energy sources that could pose on-the-job hazards.
- Know safety requirements for your work location and follow them.
- Select the appropriate personal protective equipment (PPE). Remember, PPE must be worn until the electrical system is in a safe condition. If you have been trained to work with energized electrical systems, you must ensure your PPE is rated for use with energized systems or E-rated.
- Complete a detailed job plan and communicate it to all coworkers.
- Before working on or around electrical systems or equipment, identify the load circuits and disconnect. Remember, in some cases, turning power off may cause other hazards. Such hazards and additional guidance should be addressed in your work plan.

- Use lock-out/tag-out procedures.
- Verify that the equipment or system has been de-energized by testing.
- Make sure your test equipment is working, both before and after you use it.
- If at any time the job becomes more hazardous than anticipated, stop and revise the plans.

Above all, never assume that the equipment or system is de-energized. Remember to always.

TEST BEFORE YOU TOUCH