How to conduct an effective tool-box talk

Carrying out the training

Like all training, delivering the information effectively takes preparation and a desire to involve the workers in health and safety at the workplace. Employers may train workers to lead the training or have supervisors provide the training. Studies have shown peer-to-peer training is effective, participatory, and well-retained.

Preparing to teach the training sessions:

1. Spend about 15 minutes to become familiar with the Toolbox Talk.
2. Print a copy of a relevant Toolbox Talk and think about how the topic relates to your specific worksite.

Advice for trainers

Safety meetings work best if the whole crew actively participates. This makes it more interesting and more likely that people will remember the information you've given them.

Here are some ways to encourage everyone to get involved:

- Ask questions instead of simply giving them the information. After you ask a question, wait a short time to let people think. Then, call on volunteers to answer.

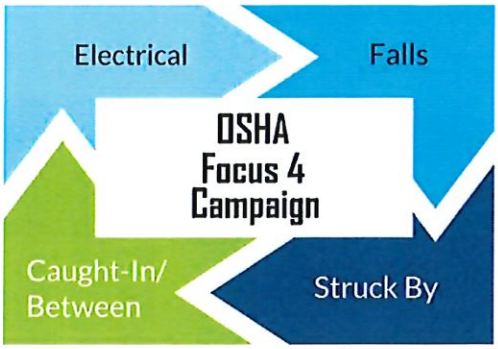
- Ask about personal experiences. This can help the group see how the topic is relevant to them. You could ask: Has anyone here had personal experience in dealing with this hazard? What happened?

- Make sure everyone has a chance to talk. If a crew member is talking too much, invite someone else to speak.

- Don't fake it. If you don't know the answer to a question, don't guess. Write the question down and promise to get back to them.

- Stick to the topic. If the crew's questions and comments move too far from the topic, tell them that their concerns can be addressed later, either privately or in a future safety meeting.



TOOLBOX TALKS

Electrical Safety—Toolbox Talk # 1

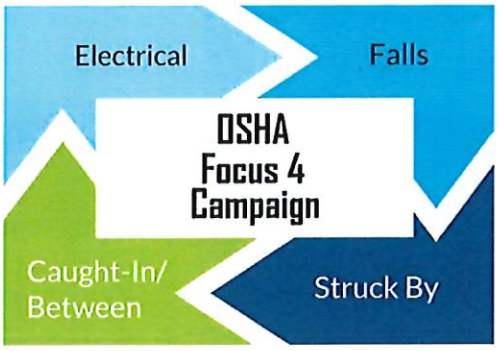
Precautions for avoiding electrical shocks include, but not limited to the following:

General safety precautions:
Safety to personnel and safe operation of machines and tools should be of utmost importance in all considerations of using electricity on the jobsite. Electrical hazards are among the most frequently cited OSHA violations. There are many specific standards that address electrical safety. Refer to Subpart K—Electrical (1926.400-449) for more information.

Ground Fault Circuit Interrupters:
The ***GFCI*** is a fast acting device that senses a small current leakage to ground. Within 1/40 of a second it shuts off the electricity and "interrupts" the current flow. It provides effective protection against shocks and electrocution. OSHA requires GCFIs or an assured equipment grounding conductor program on all construction sites and projects.

Extension Cords:
Extension cords are convenient ways to provide power to portable equipment. However, they are often misused, resulting in injuries and possible shock hazards. It is important thing to remember that extension cords are for temporary use only. Inspect extension cords for physical damage before use; check rating on the tool being used with an extension cord; do not use an extension cord that has a lower rating; do not plug one extension cord into another.

Electrical Fires:
On construction sites, an electrical fire that may occur when portable tools overload a power source. If possible to do safely, immediately disconnect the tool or power cord from the power source. This usually results in the electrical fire being extinguished. If the electrical fire has not been extinguished, a trained employee can use a Class "C" or multi-purpose fire extinguisher to PASS over the fire.
PASS – Pull Aim Spray Sweep



TOOLBOX TALKS

Electrical Safety—Toolbox Talk # 2

How can we prevent electrocutions while using power tools?

[Presenter to ask the following questions and give time for answers.]

What are the hazards? Bodily contact with electricity.

What are the results? Shock, fire, burns, falls or death.

What should we look for? Tools that aren't double-insulated, damaged tools and cords, incorrect cords, wet conditions, tools used improperly.

[Presenter to ask the following question and ensure every item is covered.]

NOTE: Review common hand tool owner's manuals for inspection and use requirements

How can we stay safe while using power tools?

□ Get proper training on manufacturers' tool use and specs.

□ Inspect tool before each use according to manufacturers' instructions.

□ Do not use damaged tools, remove them from service.

□ Use only battery-powered tools in wet conditions.

[Presenter to ask the following questions about this site and ensure every item is covered.]

Let's talk about this site now.

□ What can lead to an electrocution while using power tools? *Non double-insulated tools, damaged cord, wet conditions*

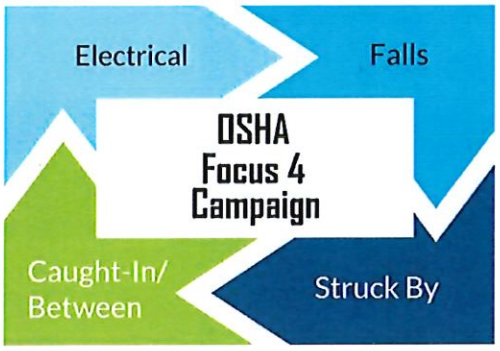
□ Have you seen or used any defective power tools?

□ What should you do if you find a defective power tool?

OSHA®

This information has been developed by OSHA and its partners with the intent to assist employers, workers, and others as they strive to improve workplace health and safety. This information must be understood as a tool for addressing workplace hazards, rather than an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards.

MID-ATLANTIC CONSTRUCTION SAFETY COUNCIL
QUALITY PRODUCTION SAFETY



TOOLBOX TALKS

Electrical Safety—Toolbox Talk # 3

Be aware of the power lines where you live and work

Always assume power lines are energized. This includes power lines on utility poles as well as those entering your home or buildings. Always keep yourself, your equipment, and anything you carry at least 10 feet from power lines. Even though you may notice a covering on a line, NEVER assume it is safe to touch. Stay Away!

Ladders—Never stand ladders near power lines. When working on or near ladders, keep all tools, the ladder, and anything you carry well away (at least 10 feet) from power lines.

High Reach Equipment—Keep all cranes, scaffolding, and high reach equipment away from power lines. Contact with a power line can cause serious burns or electrocution. Remember to work a safe distance from all power lines. When performing construction activities, keep equipment at least 10 feet from power lines and 34 feet from transmission tower lines.

Fallen Power lines-Keep yourself and others away from any fallen power lines. You never know when they might be energized. Call local utility provider right away and report the location of the downed wires. If a line falls on your car, stay in your car. If you must get out of the car, jump clear, do not touch any part of your car and the ground at the same time and stay clear of the fallen line.

Trees Near Power lines- Do not climb or trim trees near power lines and keep children from doing the same. Hire a qualified contractor to trim trees near power lines. Contact your local electrical utility if you have any questions about removing limbs or trees near power lines.

Digging—You are required by law to call One Call at 811 to locate gas, electric, and other underground utility lines before you dig. Whether you are planting a tree, building a fence or laying foundation, contacting a line with a shovel or pick can damage power lines and injure or kill you or others.

Working Near Power lines

Contact your local electrical utility (i.e. PECO) if you are conducting any work or activity that may bring yourself, your equipment, and anything you carry within 10 feet of a power line.

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MID-ATLANTIC CONSTRUCTION SAFETY COUNCIL
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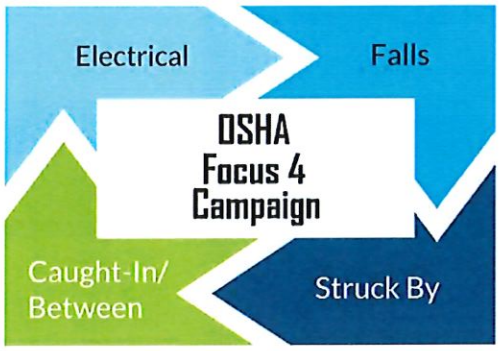


TOOLBOX TALKS

Electrical Safety—Toolbox Talk # 4

Electrical Safety and First Aid Assistance

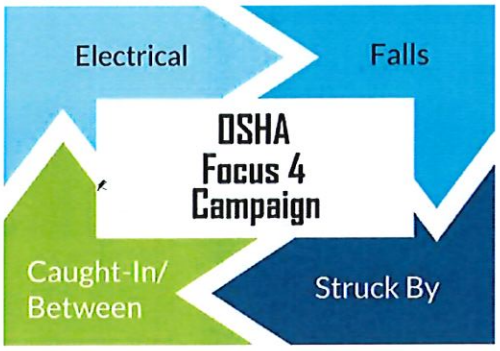
Actual Incident:

At approximately 4:15 p.m., an employee installing a ground conductor inside a 277/480 VAC 3-phase panelboard was shocked when his wrench came into contact with the "A" phase lug of the three-wire system. The employee sustained first and second degree burns from the arc flash created by the contact with the "A" phase lug. The employee was hospitalized and treated for these burns for more than one month.

Assistance:

* Ensure your own safety, by making sure the scene is safe.
* If possible, and if it is safe to do so, shut off the source of electricity.
* Call 911 with explicit address & inform them the source of the current such as a downed pole, etc.
* Do not hang up on the 911 operator until told to do so.
* If you cannot shut off the source of electricity, attempt to move the source away from both you and the injured person using a dry, nonconductive object made of cardboard, plastic or wood; all without placing yourself at risk of electrocution.
* Begin CPR and use an AED if the person shows no signs of circulation, such as breathing, coughing or movement until EMS arrives.
* Try to prevent the injured person from becoming chilled.
* Apply a bandage. Cover any burned areas with a sterile gauze bandage, if available, or a clean cloth. Don't use a blanket or towel, because loose fibers can stick to the burns.

Source: The Mayo Clinic



TOOLBOX TALKS

Electrical Safety—Toolbox Talk # 5

Working Near High Voltage Energized Electrical Lines

[Presenter to ask the following questions and give time for answers.]

What are the hazards? Bodily contact with electricity

What are the results? Electrocution, shock, fire, burns, falls or death

What should we look for? Overhead service lines, temporary service feeds to the construction project

[Presenter to ask the following question and ensure every item is covered.]

How do we prevent these results?

□ Maintain a distance of at least 10 feet from energized powerlines

□ Never use metal ladders while working near energized electrical lines

□ Pay particular attention to the location of overhead powerlines when setting up ladders, scaffolding, and/or work platforms

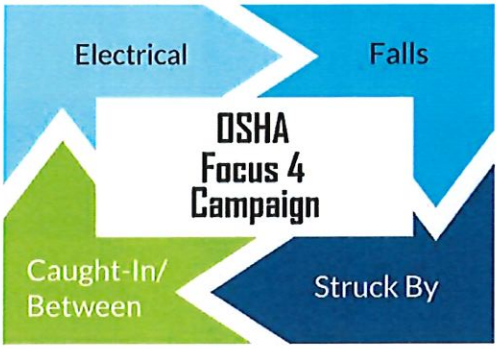
[Presenter to ask the following questions about this site and ensure every item is covered.]

Let's talk about this site now.

□ Where are the overhead powerlines on this site? Service drops to the project? Feeds for temporary electrical cabinets?

□ Do you have to work in close proximity to the source? Can the line be de-energized or insulated?

□ How do you know if an electrical line is energized or creates a hazard? Unless it is verified, always assume lines are energized. Stay at least 10 feet away. **ALWAYS ASK QUESTIONS**

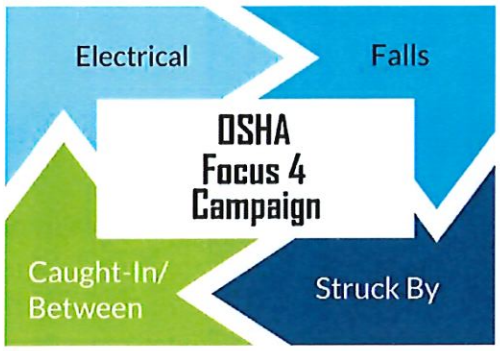


TOOLBOX TALKS

Electrical Safety—Toolbox Talk # 6

PRECAUTIONS WHEN USING EXTENSION CORDS

* Use extension cords that are the correct size or rating for the equipment in use. The diameter of the extension cord should be the same or greater than the cord of the equipment in use.
* Always inspect the cord prior to use to ensure the insulation isn't cut or damaged. Discard damaged cords, cords that become hot, or cords with exposed wiring.
* Use extension cords only when necessary and only on a temporary basis. Do not use extension cords in place of permanent wiring.
* Do not remove the prongs of an electrical plug. If plug prongs are missing, loose, or bent, replace the entire plug.
* Do not use an adapter or extension cord to defeat a standard grounding device. (e.g., Only place three-prong plugs in three-prong outlets; do not alter them to fit in a two-prong outlet.)
* Only use cords rated for outdoor use when using a cord outside; cords should be selected and utilized for the applicable work environment.
* Do not run cords above ceiling tiles or through walls.
* Keep electrical cords away from areas where they may be pinched and areas where they may pose a tripping or fire hazard (e.g., doorways, walkways, under carpet, etc.).
* Never unplug an extension cord by pulling on the cord; pull on the plug.



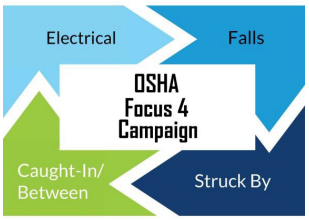
TOOLBOX TALKS

Electrical Safety—Toolbox Talks # 7

ARC FLASH PROTECTION AND CONSIDERATIONS

* Establish a written electrical safety program with clearly defined responsibilities covering all of your company's electrical safety policies, including lockout/tagout, internal safety policies and responsibilities for electrical safety.
* Have an engineering firm conduct an electrical system analysis to determine the degree of arc flash hazard present at your workplace. The analysis will define the type of personal protective equipment (PPE) that your workers must use while performing any work when energized parts are exposed.
* Conduct arc flash safety training for all employees. It should be specific to the hazards of arc flash, arc blast, shock and electrocution. Ensure adequate personal protective clothing and equipment is on hand.
* Ensure the proper tools are on hand for safe electrical work. This includes insulated voltage-rated hand tools and insulated voltage sensing devices that are properly rated for the voltage application of the equipment to be tested.
* Any electrical equipment that is likely to require examination, adjustment, servicing or maintenance while energized must have arc flash warning labels posted in plain view. Such equipment includes switchboards, panel boards, industrial control panels, meter socket enclosures and motor control centers.
* Appoint an electrical safety program manager. This should be a well-organized, responsible person who is familiar with electrical code requirements and other safety issues.
* Maintain all electrical distribution system components. Modern, properly adjusted over-current protective devices are able to detect an arcing condition almost instantly and clear the fault quickly. This capability significantly reduces the amount of incident energy that is released.
* Finally, maintain and update all electrical distribution documentation. This is especially critical when expanding or revising facilities.

Sources: Square D and NFPA



Project: _____ Employer: _____

Presenter: _____ Date: _____

Toolbox Talk Topic _____ Toolbox Talk Number: _____

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