



"Electrical safety is not just for electricians. All workers should understand the hazards of working near electricity." —RAMÓN HERNANDEZ



ELECTRICITY

PROTECT YOURSELF FROM ELECTRICAL HAZARDS IN CONSTRUCTION

ELECTRICAL HAZARDS

Is electricity dangerous?

- Contact with electricity is a huge hazard on construction sites. The most common causes of electricity-related death in the workplace are incorrect cable use or the use of a damaged extension cord. Electrical shock can cause severe injury.
- In 2007, 108 construction workers died because of electrical shock.

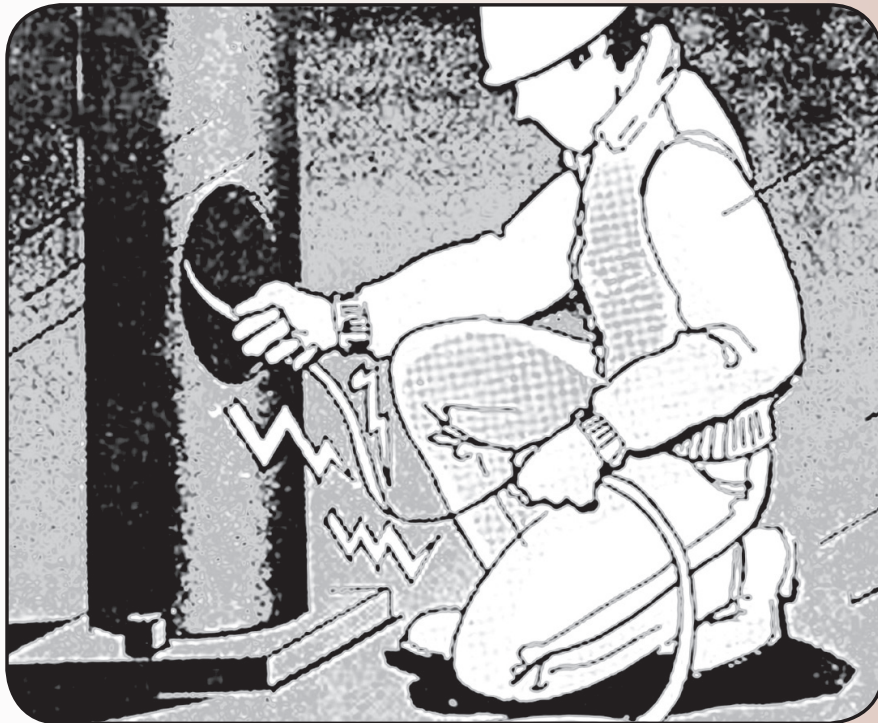


Workers that are at high elevations and come into contact with electricity can fall, which can cause serious injury or even death.

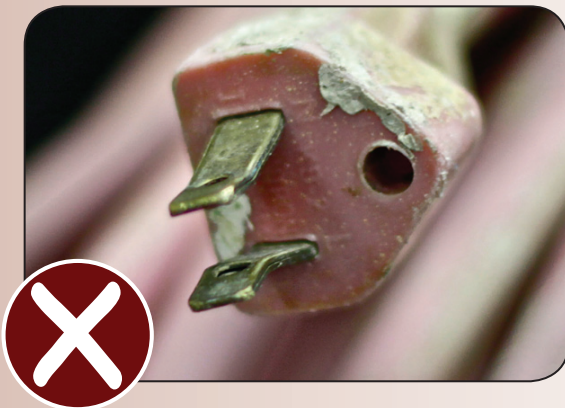
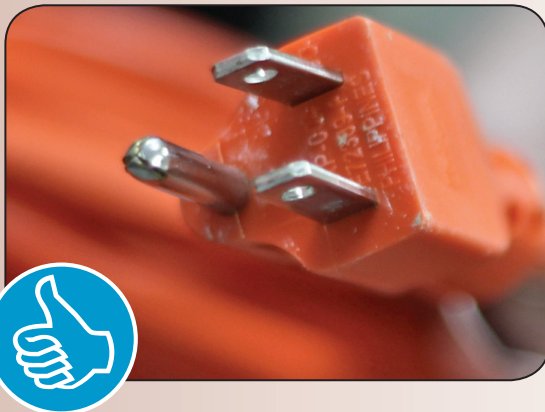
ELECTRICAL HAZARDS

What are the most common electrical hazards on construction sites?

- Inadequate electrical installation
- Damaged tools and equipment
- Exposed electrical equipment
- Overhead electrical wires
- Overloaded circuits
- Faulty grounding
- Wet conditions



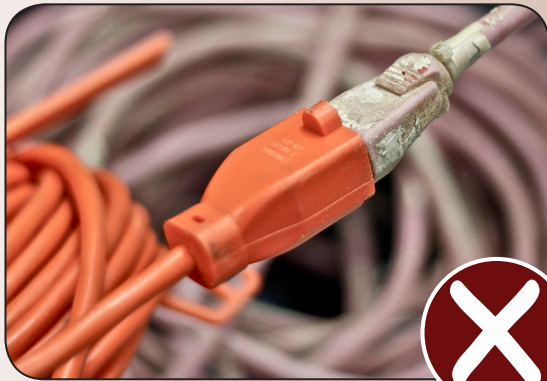
SAFETY WITH CORDS AND CABLES



- Examine each cord carefully before using it. If a cord is damaged, or if it is missing a grounding pin, throw it away.
- Never try to fix a damaged cord with tape. Damaged cords can't be used.
- Only use cords that are made for heavy or extra heavy-duty jobs, which are marked with: S, ST, SO, STO, SJ, SJO, SJT, or SJTO.
- Never alter a circuit breaker or ground pin.

SAFETY WITH CORDS AND CABLES

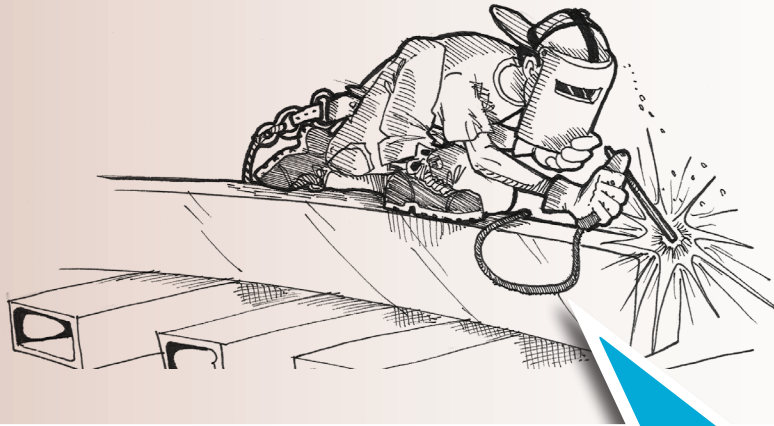
- Never leave cords in a place where others may walk over them; make sure to secure the cord to the ground with tape.
- If you receive a light shock from any equipment or cord, unplug it and inform your supervisor immediately.
- Don't run cords around tight corners.
- Use cords that are long enough for the job. Don't connect multiple cords together.
- Extension cords should not be used as permanent cords.



SAFETY WITH CORDS AND CABLES

There has to be a grounding pin!

- Electrical equipment should have adequate grounding.
- Removing the grounding pin can cause an electrical shock!
- Only use equipment with cords that have three prongs and tools with double insulation.



REMEMBER!

Use ground-fault circuit interrupters (GFCIs) to protect yourself against a dangerous electrical surge. Test GFCIs daily by pressing the "Test" button.



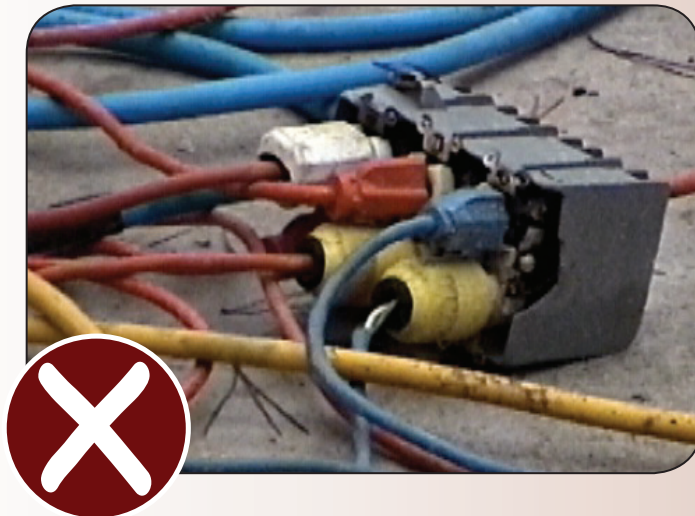
GFCI – Ground-fault circuit interrupters



SAFETY WITH CORDS AND CABLES

Be careful not to overload circuits

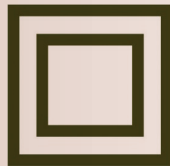
- Never overload a circuit or plug, and always use the proper circuit breaker.
- Never use adapters, multiplugs, nor surge protectors in construction sites. Instead of these, use GFCIs (Ground-Fault Circuit Interrupter).



SAFETY WITH CORDS AND CABLES

Damaged equipment is dangerous

- Immediately inform your supervisor about all exposed cables.
- Never use tools with damaged insulation.
- Use all tools and equipment according to their instructions; never modify them.
- Use tools with double insulation, marked with the symbol below:



ELECTRICAL SAFETY AND WATER

Water and electricity do not mix!

Water conducts electricity! Never let a cable pass through a puddle of water.

Avoid using tools in wet locations; NEVER use equipment while you are standing in water.



ELECTRICAL SAFETY AND POWER LINES

What about overhead power lines?



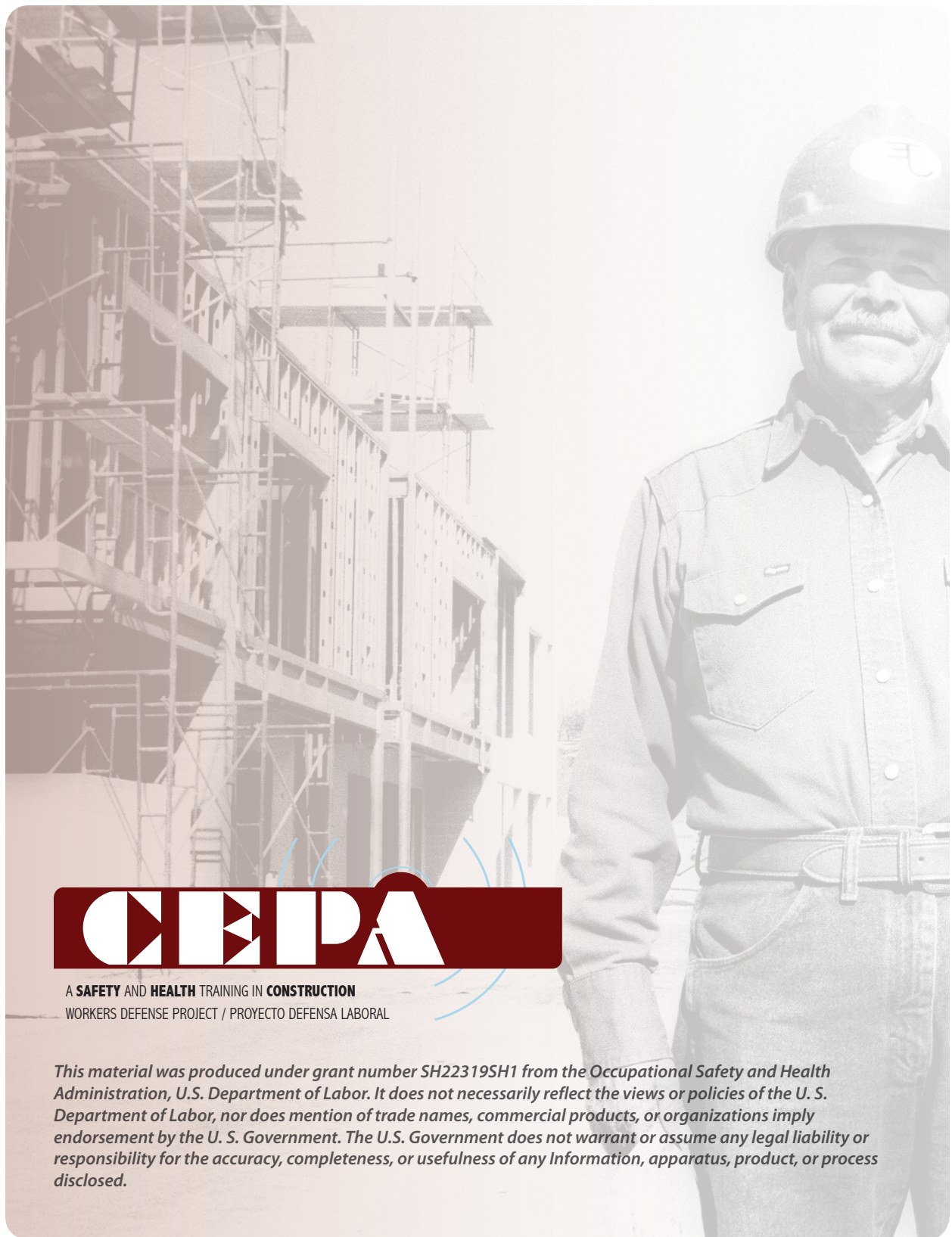
- Inspect all construction sites for overhead power lines before beginning work.
- Keep at least 10 feet (more than 3 meters) between all equipment and any overhead power lines.
- Never store materials or equipment under overhead power lines.
- Never use metal ladders when you are close to overhead power lines. Rather, use fiberglass ladders.
- Never try to touch an overhead power line.

BE SAFE WITH ELECTRICITY

How can you avoid hazards?

- Inspect all electrical equipment before using it.
- Store electrical equipment in its appropriate place.
- GFCI: Use ground fault circuit interrupters (GFCIs). This gadget protects you from a dangerous electric shock.
 - Test GFCIs daily using its test button.





A **SAFETY** AND **HEALTH** TRAINING IN **CONSTRUCTION**
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