

Toolbox Talks 2

079: Unsafe Conditions: Construction Sites

Discussion leader duties for this session:

Identify three hazards that exist on this site. Be prepared to use them as examples.

What this Safety Talk covers:

This Safety Talk addresses unsafe conditions on construction sites.

Discussion notes:

Point to remember

Construction sites are busy places with temporary structures and people in transit.

Unsafe conditions commonly encountered on construction sites

- Incomplete structures. Holes in floors, inadequate lighting, fire protection systems not yet installed, exposed piping, exit lighting not installed, and other hazards exist simply because the building isn't complete. Be alert to such hazards. And don't be distracted by your cell phone. If you have to use it, stop at a safe location. Don't walk a dangerous site and use a cell phone at the same time.
- Egress issues. With so much being moved around—equipment, materials, scrap, people, tools—fire exit routes are easily overlooked. Note the exit routes as you move around onsite. These routes may change throughout the day.
- Crowding. During construction, more materials and equipment need to be present than after construction is done. The cramped quarters raise the hazard level.
- Combustibles. Shipping materials, wrappers, paints, solvents, and other combustibles are typically present on a construction site. Clear the areas of combustibles before starting that generator, heater, or welder.
- Heavy equipment. Stay out of the way of cranes, bulldozers, end loaders, and other heavy equipment. Don't assume the operators of this equipment can see you.
- Interaction with other trades. Many projects are being "fast tracked" today. One result is crews are increasingly working "on top of each other." A quick talk with the nearby crew to agree on who should do what and when can help everyone work safely in the same space. If someone from another crew disregards safety, contact your supervisor immediately.
- Damage to portable cords. Construction sites often employ people who are still learning the basics. Inexperienced people often abuse portable cords. They may walk on them or drive over them, when they can just as easily walk or drive around them. An inexperienced person on your crew might string a cord across a trafficway without running it through a cord guard. Inspect cords regularly, and ensure they're routed properly and protected as needed.
- Damage to tools or equipment. Don't let other trades use your equipment. If it's OK with your supervisor, do them a quick favor using the equipment yourself. Damaged conduit benders, drills, and saws can easily cause injury.
- Damage to unguarded work. Don't energize cabling if it's been left exposed and unattended, without testing the insulation for damage.
- Temporary power. Ensure this meets the requirements of NEC Article 590.
- Grounding and bonding errors. Grounding does not remove shock hazards.

Review and discussion

1. In what ways do incomplete structures affect safety?
2. How is egress affected by construction activities, and how can you protect yourself?
3. Is the fact that construction sites are often crowded a safety issue? In what ways?
4. What kinds of combustibles are often present on construction sites? What does this mean, in regard to your safety?
5. What danger does heavy equipment present, and how do you protect yourself?
6. Can other trades affect your safety? In what ways? What are some things you can do to protect yourself?
7. What are some reasons you shouldn't let other trades use your equipment?
8. Can completed work be damaged in some way that makes it dangerous? What are some possible ways this can happen? How do you protect yourself? *[Note to Presenter: There are all kinds of ways equipment can be damaged. For example, rodents can chew through cables, or a person might walk on them. If it's been left unprotected, inspect and test before energizing.]*
9. What NEC Article covers temporary power?
10. Why doesn't grounding protect you from touch shock hazards? *[Note to Presenter: Bonding protects you by putting metallic objects at the same potential. Grounding does not put objects at the same potential. See the NEC Article 100 definitions of grounding and bonding.]*

Participant's Signature and Date

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