

# Toolbox Talks 2

## 020: Fire Prevention

### ***Discussion leader duties for this session:***

Review your company's fire prevention policy. Be prepared to give some specific rules and how they apply to specific fire hazards on this job site.

### ***What this Safety Talk covers:***

Practices that reduce the likelihood of fires.

### ***Discussion notes:***

### ***Fire hazard facts***

Fires require three things to get started:

- **Fuel.** Anything that can burn is fuel. Some fuels burn more readily than others. The more readily a fuel burns, the more you must consider it a fire hazard.
- **Ignition source.** This doesn't mean just lighters. Any time you break an electrical contact you have an ignition source. This is true even when taking a voltage measurement. A small fire can ignite another fuel source, creating a larger fire.
- **Oxygen.** A fire won't burn without oxygen. Obviously, you can't remove oxygen because you need it too. This leaves fuel and ignition sources as the things you can control.

### ***Best practices***

- Keep combustibles, especially trash, from accumulating. Even if cardboard containers or wooden crates are stacked neatly, they are still fuel.
- Keep things orderly. Neatness does help. If things are normally neat, something that is out of place (and possibly dangerous) stands out.
- Store combustibles as far from potential (and actual) ignition sources as is practical.
- When storing combustibles, take care to consider routes of egress. Even if you don't block a door with a pile of wooden crates, the crates may be too close to the door to allow a person to pass if those crates are engulfed in flames.
- Provide adequate ventilation for equipment powered by liquid fuels (e.g., gasoline) at all times, not just when the equipment is running. Use only approved equipment for fuel transfer (e.g., no home-made paper funnels). Ensure any fuel caps are secure before using the equipment.
- When transporting, storing, or changing gas bottles (e.g., propane, LP gas) or filling a fuel tank, use only approved tools, equipment, and procedures.
- Before using an ignition source, survey the area for the presence of combustibles and take the necessary precautions.
- If you notice an issue with combustibles while using an ignition source (this includes simply taking electrical measurements or operating a light switch) or notice an issue with ignition sources while transferring fuels, stop. Correct the condition, ventilate as needed, and reassess the situation before proceeding.
- Think of the site permit policies for burning, welding, and other ignition activities as a way to prevent fire, rather than as just another barrier to getting the job done.

### ***Review and discussion***

1. Which makes more sense, to put fires out or prevent them in the first place? Which approach is safer and less costly?

2. Fire needs three things to get started. What are they?
3. What are some fuels you are working *with* on this job and have direct control over?
4. What are some fuels that you are working *around* on this job? How does their presence affect how you must work?
5. Where should you store combustibles, and why?
6. What are some ignition sources you use or may use on this job?
7. What are some ignition sources you are working around on this job? How does the presence of those sources affect the way you should work?
8. Should you think of fire prevention policies as hassle or as opportunity? Why? *[Note to presenter: Many people consider these policies to simply add to their work load and slow down completion of the job. So, they comply half-heartedly and not always adequately. People who think of these policies as an opportunity to prevent fires tend to comply in a manner that actually does prevent fires. This is the idea to get across with this question and the discussion of it.]*
9. You are using a generator for temporary lighting while installing several new switchgear panels for a new service. Because of the rain, you've put the generator indoors. What are some safety practices to observe when fueling it?
10. The carpenters have stacked scrap wood in a pile in the switchgear room. It's been there for days. You've heard your foreman talk with their foreman about it twice, already. Yet, the pile still remains. The schedule shows that startup testing isn't far off. What is the danger in energizing that switchgear? What if the customer's project manager tells you to energize it and not worry about the wood?

[illegible]