



INTRODUCTION

Electrical panels can be found in both the home and work environment. Whether an employee is just turning a breaker off or a qualified electrician is working on the panel, anytime someone is working around or on an electrical panel there is the potential of them being exposed to harm. Following the safe work practices presented in this lesson will help ensure employee safety.

HAZARDS

When working around or on an electrical panel, employees could potentially be exposed to the following hazards:

- Electric shock or electrocution
- Arc Flash
- Fire



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Employees should wear the appropriate personal protective equipment, which may include:

- Safety glasses
- Arc-rated face shield
- Hard hat
- Shock-resistant or rubber insulated gloves
- Fire-resistant clothing
- Leather work boots
- Switching hood with hearing protection



SAFE WORK PRACTICES

Note: Only trained and qualified electricians or employees should perform any maintenance or replacements on electrical panels. Employees who have not been trained in electrical safety should not attempt to perform any work on electrical panels.

Clearance

The Occupational Health and Safety Administration (OSHA) requires that a clearance of at least 3 feet (36 inches) be maintained around electrical panels that are carrying 600 volts or less of electricity.

Regular Employees

If an employee is not a trained and qualified electrician or an employee who has been trained in electrical safety, they should do the following when working around or using an electrical panel:

- Do NOT block access to electrical panels.
- Do Not remove the cover on the electrical panel.
- Do NOT store or put anything in the electrical panel.
- Obey all warning signs that are posted near and on electrical panels.
- Notify your supervisor of any missing covers or doors on electrical panels.
- Ensure that all breakers are correctly labeled and that the labels are legible.
- Ensure that all breakers are made by the manufacturer of the panel. If a breaker is made by a different company then it may not work in the panel. Report breakers that are not made by the manufacturer to your supervisor.
- Record any changes that have been made to the breakers or panel.
- Report any signs of smoke or electrical smells to your supervisor.
- Notify electricians or employees trained to perform electrical work about any and all changes that have been made to either breakers or the panel itself.

Electricians

When an electrician works on an electrical panel, they should do the following:

- Ask about any and all changes that have been made to the panel.
- Inform owners and any designated employees about the hazards involved with any work that you may be performing.
- Do NOT allow anyone to help you while performing inspections or other tasks.
- Ensure that you are wearing the appropriate personal protective equipment for the task.
- Ensure that all lockout/tagout procedures are followed.
- Look for dangerous conditions before and during work that is being performed on the panel.

CONCLUSION

While doing something like flipping a breaker may seem like it's not dangerous, employees should remember that electrical panels have live electric currents running through them unless they have been properly de-energized. By following the safe work practices presented in this lesson, employees can help minimize their chances of an accident occurring when working around or when using an electrical panel.

