# TOOLBOX TALK

## ARC FLASH DANGERS

An arc flash is a dangerous release of energy from an electrical fault, causing intense heat, light, and shockwaves that can result in serious injury or death. Prevention includes maintaining equipment, proper labelling, using appropriate PPE, following lockout/tagout procedures, keeping a safe distance, and using the right tools.

1. Are the employees working in live areas trained on Arc Flash?
2. Do the employees know the safe working distance from a live equipment?

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## DANGERS OF ARC FLASH

**LIGHT**
Cause temporary or permanent blindness.

**PRESSURE WAVE**
The force can cause injuries or even throw workers across a room.

**FLYING DEBRIS**
Explosions can send hot metal or fragments flying, causing injury.

**FIRE**
Clothing and equipment can catch fire, leading to burn injuries.

## SAFETY PRECAUTIONS

**LOCKOUT/ TAGOUT**
Use LOTO to fully isolate equipment and prevent accidental startup.

**KEEP SAFE DISTANCE**
Maintain a safe distance of 30–92 cm from energized equipment.

**TRAINING**
Train all employees in arc flash safety and emergency response.

**DE-ENERGIZE EQUIPMENT**
Always de-energize electrical equipment before working on it.

**USE PROPER TOOLS**
Use insulated tools when working near energized equipment.

## HAZARD ANALYSIS

**ARC FLASH STUDY**
Employers should conduct an arc flash study to identify hazards and set safety guidelines.


**LABELLING**
Electrical panels and equipment should be labeled with information about arc flash hazard risk levels (e.g., shock boundaries, incident energy levels, and required PPE).

## PERSONAL PROTECTIVE EQUIPMENT

Based on the results of the **ARC FLASH HAZARD ANALYSIS**, WORKERS NEED TO WEAR

**ARC-RATED CLOTHING**
(e.g., flame-resistant coveralls)

## TAKE NOTE OF SIGNAGE


## CAUSES

**FAULTS:**
A short circuit or insulation failure in electrical equipment.

**HUMAN ERROR:**
Improper handling or maintenance of electrical systems.

**ENVIRONMENTAL FACTORS:**
Damaged by moisture, contamination or corrosion.

# TOOLBOX TALK

**PROJECT NAME:**

**DATE:**

**SITE MANAGER / SUPERVISOR / PRESENTER NAME:**

This form should be used by site supervisors, foremen, or managers during site toolbox talks, meetings, and training sessions.

All attendees should sign the register to confirm their attendance.

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# REGISTER

| NAME AND SURNAME: | COMPANY: | SIGNATURE: |
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