

SAFETY/RISK/HAZARD ASSESSMENT

GENERAL ELECTRICAL SAFETY GUIDE



Always wear appropriate safety equipment

The safety information contained in this assessment is general information only and should not be relied upon as a substitute for professional advice or tuition, which the hirer should seek before operating any equipment.

Risks associated with electricity

The risk of death or injury from electricity is strongly linked to where and how it is used. For example, the risks are generally higher if it is used:

- Outdoors or in damp surroundings—equipment may become wet and may be at greater risk of becoming damaged.
- In cramped spaces with earthed metalwork. For example, inside a tank or bin it may be difficult to avoid receiving an electrical shock if an electrical fault develops.

Some types of equipment can also involve greater risk than others, for example:

- Portable electrical equipment including plugs and sockets, electrical connections and to the cable itself are especially vulnerable to damage.
- Extension leads, particularly those connected to equipment that is frequently moved, can suffer similar problems.

Identify the Hazard

Physically inspect the worksite to identify potential hazards and ensure all persons in and around the worksite are aware of all potential hazards.

Assess the Risk

Determine the potential risk to persons and property/equipment.

Risk may include (but are not limited to):

- Injury or death
- Damage to property & equipment

RISK CONTROL MEASURES

Undertake appropriate measures to reduce risk to persons and property/equipment.

Depending on the workplace additional duties to manage electrical risks are required. Higher risk workplaces using certain electrical equipment must:

- regularly test that electrical equipment
- use RCDs.

Higher risk workplaces are those where operating conditions are likely to damage the equipment or reduce its life span. This includes conditions that expose the equipment to moisture, heat, vibration, mechanical damage, corrosive chemicals and dust. Examples include:

- wet or dusty areas
- outdoors
- workplaces that use corrosive substances
- commercial kitchens
- manufacturing environments.

Inspect, test and tag

Regular inspecting and testing of electrical equipment can save lives. It helps identify damage, wear and electrical faults.

You can detect many electrical defects such as damaged cords just by examining them, but regular inspection and testing will make sure you detect electrical faults and deterioration you can't see.

Inspections and testing must be carried out by a competent person, which depending on your jurisdiction might be a licensed or registered electrician or a licensed electrical inspector.

If you are a business inspecting and testing will help you meet your WHS duty to ensure electrical equipment is safe.

Residual-current devices

RCDs—also known as RCCBs or safety switches—are electrical safety devices that immediately switch off the electricity supply when electricity leaking to earth is detected at a level that is harmful to someone using electrical equipment.

You must use an RCD if the electrical equipment used in your workplace is:

- supplied with electricity through a socket outlet (plug-in electrical equipment)
- used in conditions likely to damage or reduce its expected life span.