



Health and Safety Bulletin No. 20

Risks to workers exposed to electrical hazards

Date: 28 August 2025

Background

WorkSafe inspectors have observed an increase in the number of electric shock or electrocution reports due to poor electrical installation and faulty electrical equipment and appliances.

In Western Australia, occupations most affected are structural steel and welding trades workers, metal fitters and machinists, commercial cleaners and sales assistants. Industries with the highest number of worker's compensation claims include cafes, restaurants and fast food, building installation services, the construction industry and school education.

Summary of hazard

An electrical hazard can occur through contact with electricity, such as direct contact with energised parts of electrical equipment, or indirect contact where electricity flows through conductive materials. Workers may be injured, sometimes fatally, during inspection, repair, maintenance or cleaning. An electric shock may also contribute to related incidents including falls from ladders, scaffolding or other elevated work platforms.

Recent examples of incidents involving electrical hazards include:

- a maintenance worker was fatally electrocuted when they made contact with a fallen outdoor mounted sign
- a bar worker received an electric shock from a faulty bar glass washer that had not been isolated or tagged 'Out of service'
- an air-conditioning mechanic was electrocuted while installing an air-conditioner at a residence.

Contributory factors

Common hazards that may have contributed to serious and potentially serious incidents include:

- outdated and poorly maintained equipment
- contact with exposed live parts
- contact with metal surfaces such as metal flooring or roofs
- unidentified live permanent wiring
- using metal tools close to live electrical wiring
- residual current devices (RCDs) not fitted
- contacting deteriorated, brittle or poorly installed live wiring.

The risk of injury from electricity is strongly linked to where and how it is used. The risks increase in harsh conditions, including:

- outdoors
- wet surroundings
- cramped or confined spaces.

Portable electrical equipment is particularly prone to damage. Plugs, sockets, connections and cables on portable electrical equipment and extension leads connected to frequently moved equipment are all particularly susceptible to damage and therefore may pose a greater electrical risk.

Actions required

Even when workers are undertaking basic tasks such as cleaning, maintenance work or using portable electrical equipment they are at risk of electric shock. WorkSafe reminds building owners and persons conducting a business or undertaking (PCBUs) that workers must not be exposed to electrical risks and:

- assess the risk for each identified electrical hazard
- de-energise electrical circuits and cables before working on them
- periodic inspection, testing and maintenance of electrical equipment and cords should be conducted in accordance with the manufacturer's requirement and Australian standard AS/NZS 3760
- take any damaged or suspect equipment out of service immediately and refer it to a competent person for repair
- ensure workers are provided with information, instruction and training to work safely with electrical equipment
- use battery powered tools instead of mains operated where possible
- ensure only appropriately licensed electricians carry out electrical work.

References and further information

WorkSafe WA

- [Safety alert 02/2021 Employee receives electrical shock from bar glass washer](#)
- [Safety alert 01/2020 Worker electrocuted in roof space](#)

Standards Australia

- AS/NZS 3760 *In-service safety inspection and resting of electrical equipment and RCDs.*