



# ELECTRICAL INSTALLATIONS IN HAZARDOUS AREAS



## WORKPLACE SELF-ASSESSMENT TOOL

Use this tool to determine if your workplace has a hazardous area and if any action is required.

Installing the incorrect type of electrical equipment in a hazardous area can cause a fire or explosion.

## WHAT IS A HAZARDOUS AREA?

A hazardous area is where there is a danger of an explosion or fire occurring wherever flammable or combustible substances in the form of gas, vapour, dust, fibres or particles are located.

The person conducting a business or undertaking (PCBU) must assess the risk of fire and explosion<sup>1</sup> and have hazardous areas classified by a competent person.

## CONTROLLING ELECTRICAL RISKS IN A HAZARDOUS AREA

When managing hazardous areas, it is essential that the possibility of an ignition source is eliminated or limited, this includes electrical equipment as an ignition source. Electrical equipment associated with a hazardous area must be a suitable type and installed and maintained correctly<sup>2</sup>.

An Electrical Safety Office hazardous area accredited auditor is required to inspect electrical installations in hazardous areas prior to connection or reconnection to a source of electricity<sup>3</sup>.

## NEXT STEPS

1. Complete the self-assessment below.
2. Identify any flammable or combustible substance that can create a fire and explosion risk.

3. Contact a hazardous area classification specialist<sup>4</sup> to determine the zones where an explosive atmosphere may exist and is reasonably foreseeable.
4. Determine the controls required to eliminate or minimise the risk of fire and explosion from an ignition source.
5. Contact a hazardous area accredited auditor to inspect and confirm the electrical installation complies with the Wiring Rules<sup>5</sup> and is electrically safe.

## MORE INFORMATION

Visit [worksafe.qld.gov.au](http://worksafe.qld.gov.au) or call 1300 362 128 to find out more about fire and explosion risk prevention, hazardous chemicals and hazardous area audits.

- [Hazardous area classification specialists](#)
- [Hazardous area accredited auditors](#)
- [Hazardous area installation audits](#)
- [Fire and explosion risks](#)
- [Fire and explosion prevention](#)
- [Hazardous chemicals](#)
- [Australian Standards](#)

<sup>1</sup> It is a duty under Work Health and Safety Regulation 2011 s.34 to identify all reasonably foreseeable hazards (e.g. explosive atmospheres) that could give rise to risk to health and safety.

<sup>2</sup> Electrical Safety Act 2002, ss. 30 & 38

<sup>3</sup> Electrical Safety Regulation 2013, s. 221

<sup>4</sup> [www.worksafe.qld.gov.au/injury-prevention-safety/workplace-hazards/fire-and-explosion-prevention](http://www.worksafe.qld.gov.au/injury-prevention-safety/workplace-hazards/fire-and-explosion-prevention)

<sup>5</sup> AS/NZS 3000:2018 Electrical Installations known as the AS/NZS Wiring Rules

## WORKPLACE SELF-ASSESSMENT TOOL – ELECTRICAL INSTALLATIONS IN HAZARDOUS AREAS

SELF-ASSESSMENT QUESTIONS	YES/NO/ NA	IF 'NO', WHAT TO DO
Does your workplace store, handle, use or generate flammable gases, vapours, liquids or combustible dusts? If yes, please continue with self-assessment.		Review workplace self-assessment if circumstances change.
Has your workplace assessed the fire and explosion risk posed by any of the above materials, including assessing any hazards and risks identified by equipment suppliers or detailed in safety data sheets?		Review safety data sheets and implement any new controls.
Has a competent person assessed the extent of the fire and explosion risk at your workplace by carrying out a hazardous area classification?		Seek assistance from a hazardous area specialist or safety professional.
If you have answered <b>Yes</b> to the above, then do you have a hazardous area verification dossier available onsite for an inspector to view?		Seek assistance from a hazardous area specialist or electrical contractor.
Does the verification dossier include:		
• a hazardous area classification drawing?		Contact the hazardous area specialist who developed the drawing or create a new drawing.
• certificates of conformity for each electrical item?		Contact the electrical contractor who performed the installation work.
• maintenance records?		Seek assistance from a hazardous area specialist or electrical contractor.
Can your workplace provide evidence to an inspector that an Electrical Safety Office hazardous area accredited auditor has confirmed the electrical installation located in a hazardous area is electrically safe and complies with the wiring rules and any other standard before the electrical installation is connected or reconnected to a source of electricity supply?		Contact the electrical contractor responsible for carrying out work on the electrical installation associated with the hazardous area.  A list of accredited auditors is available <a href="#">here</a> .
Can your workplace demonstrate that a regular periodic inspection schedule and maintenance program is in place for the electrical equipment located in a hazardous area?		Create inspection and maintenance schedule as per manufacturers requirements.
Can your workplace confirm that all electrical work, including inspection and maintenance activities, in a hazardous area been performed by an electrical worker that has hazardous area competencies?		Check with electrical contractor that electrical work is done by electrical workers competent to work on electrical equipment in hazardous areas.