Electrical Testing			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

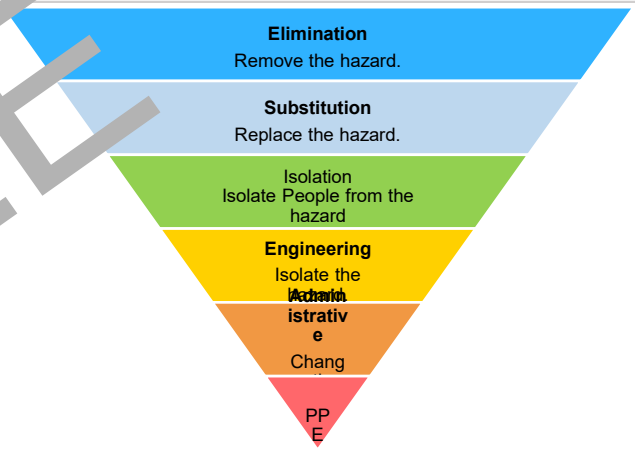
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS	SCOPE OF WORKS
Client:	
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX

LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures Monitor and keep records.

Consequence Scale:

Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. Substitute
3. Isolate
4. Engineering
5. Administrative
6. PPE

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work *(2023) and ISO 45001:2018 clauses 6–8.*

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Governance, Legal Compliance and WHS Duties	• Lack of clear organisational policy for electrical testing, inspection and test and tag activities leading to inconsistent practices across sites • Failure to identify and document all legal obligations under the WHS Act 2011, WHS Regulations and relevant Australian Standards (e.g. AS/NZS 3000, AS/NZS 3017, AS/NZS 3760, AS/NZS 4836) • Inadequate allocation of WHS responsibilities for managing electrical testing risks at officer, PCBU, line manager and supervisor levels • Insufficient due diligence by officers in verifying that electrical testing risks are being identified, controlled and reviewed • No formal risk assessment process specific to electrical testing (including testing live electrical systems, insulati resistance tests and periodic electrical inspection) • Poor integration of el esting requirements into th broader safety management syst and contractor management fram ork • Inadequate consultation with worke and Health and Safety Representat es on electrical testing policie and procedures • Failure to ensure PCBUs with overlapping duties (e.g. host employer, labour hire, contractors) coordinate electrical testing controls • Inadequate process for reviewing incidents, near misses or non-conformances arising from electrical testing operations	High	• Develop and approve a company-wide Elec al S ty and Testing Policy that defines scope (including test and tag, testing live electrical systems, insu n resistance ts, periodic electrical inspection, routine electricity safety tests nd energy efficien testing), c ctives and responsibilities • Undertake and document a leg compliance revie st WHS Act 2011, WHS Regulations and applicable Australia ards (AS/NZS 3000 W ing Rules, AS/NZS 3017 Electrical installations – Verification guid es, AS ZS 37 In-service afety inspection and testing of electrical equipment, AS/NZS 483 afe working or nea ow-v age electrical installations and equipment) and update procedures ac dingly • Defi d doc WHS roles, responsibilities and accountabilities for electrical testing at all organi ti al leve including PCBU, officers, managers, supervisors, electrical workers and contractors • Imple ent officer e diligence framework requiring regular reporting on electrical testing perform ce, r controls, competency levels and audit findings • E ed electical-specific risk management procedure that mandates formal risk assessments for checki ectrical connections once installed, test and tag activities, testing live electrical systems, and e of multimeters and voltmeters • I grate electrical testing controls into the organisation's WHS management system (e.g. risk registers, safe work procedures, permit to work systems, change management and contractor management processes) • Establish formal consultation and communication processes with workers and HSRs on development, implementation and review of electrical testing systems and procedures • Implement documented arrangements with other PCBUs at shared workplaces to coordinate testing and inspection schedules, isolation arrangements and responsibilities for test and tag of electrical tools and appliances • Establish a structured incident and near miss reporting and investigation process specifically capturing electrical testing and tagging events, with root cause analysis and action tracking • Schedule periodic management reviews (e.g. annually) of the electrical testing risk management framework, including analysis of audit results, incident trends and technology changes	Medium
2. Competency, Licensing and Training Systems	• Unlicensed or inadequately qualified personnel performing electrical testing and tagging, testing live electrical systems, or testing wiring installations	High	• Define and document competency profiles and minimum qualification/licensing requirements for all roles involved in electrical testing, including licensed electricians, electrical engineers, authorised electrical testers and test and tag technicians	Medium

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	• Insufficient competency in using multimeters, voltmeters and specialised test instruments for insulation resistance tests and energy efficiency testing • Lack of formal verification of qualifications, licences and currency for electrical workers and testers (including external test and tag providers) • Inadequate induction and refresher training covering electrical hazards, shock and arc flash risks, and specific testing procedures • No structured assessment of practical competence in setting up testing equipment, verifying de-energisation and applying correct testing methods • Failure to provide training on the limitations and correct operation of tester testing equipment and fault-finding instruments • Inadequate supervision and mentoring arrangements for new or inexperienced staff performing tester testing operations and routine electricity safety tests • Lack of training on reading and interpreting test results, test records and compliance labels • No competency requirements for persons authorising or reviewing periodic electrical inspection reports		• Implement a pre-engagement verification process to check licences, qualifications, training records and experience for employees and contractors performing electrical testing and tagging activities • Develop a structured training program covering electrical hazards, safe working near live parts, AS/NZS 4836 principles, correct use of multimeters, voltmeters and insulation resistance testers, and safe application of test instruments on live and de-energised systems • Introduce formal practical competency assessments and observations for staff and contractors who conduct test and tag of electrical equipment, testing installations, and use specialist tester testing equipment • Mandate refresher training at defined intervals (e.g. every 2–3 years or when standards are updated) and following any electrical incident or near miss related to testing activities • Include training on the organisation's specific procedures for setting up testing equipment, verifying isolation, lock-out-tagout, and requirements for testing live electrical systems only as a last resort • Provide detailed training on the limitations, maintenance and calibration requirements of test instruments, including the interpretation of insulation resistance and continuity readings • Ensure supervisors and managers receive training on supervising electrical testing work, reviewing test reports, and recognising non-compliant practices • Maintain a centralised competency and training matrix for all persons involved in electrical testing, with automatic alerts for upcoming licence expiries and refresher requirements • Restrict access to testing instruments and authorisation to conduct testing and tagging to persons who have been formally assessed as competent and authorised in writing	
3. Equipment Procurement, Specification and Suitability	• Procurement of electrical testing equipment (multimeters, voltmeters, insulation resistance testers, portable appliance testers) that is not compliant with relevant Australian Standards or not fit for the intended environment • Use of test instruments without appropriate safety ratings (e.g. CAT rating, IP rating) for testing live electrical systems and wiring installations • Inadequate specification of accessories such as test leads, probes and clamps,	High	• Develop an electrical testing equipment procurement standard that mandates compliance with relevant Australian Standards and appropriate CAT and IP ratings for the anticipated testing environment • Specify minimum technical and safety requirements for multimeters, voltmeters, insulation resistance testers, portable appliance testers and related accessories, including double-insulated leads, shrouded connectors and finger guards • Require independent verification (e.g. certificates of compliance, documentation from reputable suppliers) before purchasing new testing and tagging equipment or replacing existing instruments • Standardise, where practicable, the types and models of key testing instruments across the organisation to reduce variation and simplify training, maintenance and calibration systems	Low

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SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	leading to exposure to live parts during tester testing operations • Failure to standardise brands and models of testing equipment, increasing training complexity and risk of misuse • Purchase of low-quality or counterfeit test and tag equipment with unreliable safety features or inaccurate readings • Lack of consideration of ergonomic design and usability when selecting testing and tagging equipment, increasing manual handling and repetitive strain risks • Use of non-RCD protected outlets or unsuitable power supplies when conducting energy efficiency testing or routine electricity safety tests • Procurement of equipment without clear manufacturer instructions, safety information and calibration requiremen		• Include usability, ergonomics and durability criteria in the selection process to ensure testers can safely perform periodic electrical inspection and test and tag of tools and appliances in typical work environments • Ensure all electrical testing equipment is suppli with current manufacturer operating manuals, safety warnings and calibration specifications; stor ese documents in a central, accessible repository • Prohibit procurement of test equipment and ccesso from unverified online marketplaces where authenticity and compliance cannot be assure • Require that all test and tag struments used fo -service ety testing of equipment comply with AS/NZS 3760 requirements • Include requireme tegra safety features (e.g. fused leads, over-voltage protection, warning indicators) whe esting liv lectric systems gh-energy circuits	
4. Testing Equipment Maintenance, Calibration and Integrity	• Use of out-of-calibration multimeters, voltmeters, insulation resistance testers and portable appliance t leading t inaccurate results an unsafe equipmen remaining in servic • Damaged test lea pr or connectors exposing workers to live parts during tester testing operation or test and tag activities • No formal inspection schedule for testing instruments prior to use, resulting in undetected faults or degradation • Inadequate documentation and tracking of calibration, repairs and servicing of testing and tagging equipment • Continued use of testing instruments beyond their recommended service life or after repeated overload events • Lack of clear process for quarantining, tagging out and replacing defective testing instruments	High	[redacted]	Medium

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	• Failure to update firmware or software on digital test equipment, compromising performance and safety functions		[redacted]	
5. Procedures for Electrical Testing, Verification and Isolation	• Absence of standardised procedures for setting up testing equipment, checking electrical connections once installed, and testing live electrical systems • Inconsistent application of isolation, lockout and tagout processes prior to conducting insulation resistance tests, continuity tests or other verification on wiring installations • Testing conducted on energised circuits when reasonably practicable alternatives exist, increasing the risk of electric shock or arc flash • Failure to verify de-energisation using appropriate test instruments and test before touch principles • Lack of clear criteria for when equipment must be rem om service following fail outine electricity safety tests or peri ic electrical inspection • Inadequate procedu es for conduct g test and tag of portable electrical to and appliances in different risk categories and environm • Inconsistent methods for performing energy efficiency testing that may compromise electrical safety or interfere with protective devices	High	[redacted]	Medium
6. Work Planning, Scheduling and Authorisation	• Unplanned or ad hoc electrical testing creating clashes with production, maintenance or construction activities and increasing the risk of inadvertent energisation • Testing scheduled during peak load conditions, making safe isolation and testing live electrical systems more complex	High	[redacted]	Medium

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SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	• Insufficient time allocated for thorough testing, verification and documentation, leading to shortcuts or omissions • Testing activities not communicated to affected workers, contractors or other PCBUs on site • No formal authorisation or permit for high-risk testing activities, especially work on or near live exposed parts • Failure to coordinate periodic electrical inspections and routine electricity safety tests across multiple sites or departments, resulting in overdue testing • Inadequate consideration of environmental conditions (e.g. wet areas, confined spaces, hazardous areas) during planning of testing operations		[redacted]	
7. Labelling, Documentation and Record Management	• Inadequate or missing records of test and tag activities, periodic electrical inspections, insulation resistance tests and verification of wiring installations • Non-standard or illegible tags, labels and markings on tested equipment leading to confusion about equipment status • Records of failed tests not clearly linked to corrective actions, allowing unsafe equipment or installations to remain in service • Loss or fragmentation of testing records across different systems, spreadsheets or contractors • Lack of traceability between test results, the specific instrument used and the competent person who performed the test • Failure to retain records for the period required to demonstrate ongoing compliance and due diligence	High	[redacted]	Low

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			[redacted]	
8. Contractor and Third-Party Management	• Use of external test and tag providers or electrical contractors with inadequate systems for managing electrical testing risks • Lack of clarity over responsibilities between PCBUs for periodic electrical inspection, testing and tagging of shared equipment and common areas • Inconsistent testing methods or standards applied by different contractors across sites • Insufficient verification of contractor licences, competencies, calibration systems and insurance coverage • Contractors not following site-specific procedures for isolation, live testing authorisation, documentation and labelling • Poor communication of [redacted]azards, plant configurations [redacted] restrictions to contractors carryin[redacted]ut testing operations	High	[redacted]	Medium
9. Personal Protective Equipment and Safe Work Environment Management	• Inadequate specification and cont[redacted] of PPE requirements for perform[redacted] electrical testing, including [redacted]ting live electrical systems and working in switchboards • Reliance on PPE instead of higher-order controls such as isolation and engineering protections • Poor condition or inappropriate rating of insulating gloves, clothing, eye and face protection used during electrical test operations • Testing conducted in poorly controlled environments, such as wet or confined spaces, increasing the risk of electric shock	High	[redacted]	Medium

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SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	• Cluttered work areas around switchboards or panels where testing and verification are performed, creating trip and contact hazards		[redacted]	
10. Emergency Preparedness, Incident Response and Continuous Improvement	• Lack of specific emergency response procedures for electrical incidents occurring during testing and verification activities • Inadequate provision and maintenance of first aid resources suitable for electrical shock and burns • Workers and supervisors not trained in responding to electrical accidents, including not touching live casualties and safe isolation before rescue • Near misses and minor incidents during electrical testing not reported o investigated, limiting organisational learning • Failure to review and u electrical testing systems follo g incidents, legislative change r updates to Australian Standa	High	[redacted]	Medium

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory
Work Health and Safety Act 2011
Work Health and Safety Regulations 2011
Legislation QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws
Codes of Practice QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice
Legislation ACT: https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations
Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice

New South Wales
Work Health and Safety Act 2011
Work Health and Safety Regulations 2025
Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislation
Codes of Practice NSW: https://www.safework.nsw.gov.au/resource-library/list-of-codes-of-practice

Northern Territory
Work Health and Safety (National Uniform Legislation) Act 2011
Work Health and Safety (National Uniform Legislation) Regulations 2011
Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws
Codes of Practice NT: https://worksafe.nt.gov.au/forms-and-resources/codes-of-practice

South Australia
Work Health and Safety Act 2012 (SA)
Work Health and Safety Regulations 2012 (SA)
Legislation for SA: https://www.safework.sa.gov.au/resources/legislation
Codes of Practice for SA: https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs

Tasmania
Work Health and Safety Act 2012
Work Health and Safety (Transitional and Consequential Provisions) Act 2012
Work Health and Safety Regulations 2012
Work Health and Safety (Transitional) Regulations 2012
Legislation for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations
Codes of Practice for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

Victoria
Occupational Health and Safety Act 2004
Occupational Health and Safety Regulations 2017
Legislation VIC: https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations
Codes of Practice VIC: https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice

Western Australia
Work Health and Safety Act 2020
Work Health and Safety Regulations 2022
Legislation Western Australia: https://www.commerce.wa.gov.au/worksafe/legislation
Codes of Practice WA: https://www.commerce.wa.gov.au/worksafe/codes-practice

Safe Work Australia Links
Law and Regulation (All States): https://www.safeworkaustralia.gov.au/law-and-regulation
Model Codes of Practice: https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work