Tool Maintenance

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:

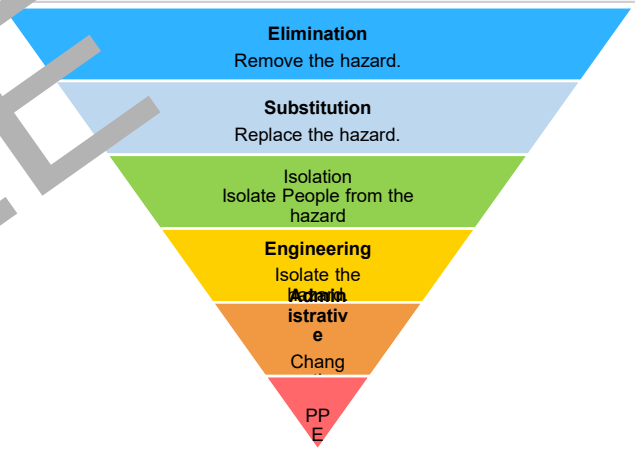
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
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, WHS Duties & Legislative Compliance	• Lack of clear allocation of WHS duties for tool maintenance under WHS Act 2011 and WHS Regulations • Failure to identify tools as plant requiring risk management in line with WHS Regulations (plant, guarding, maintenance) • Inadequate consultation with workers and Health and Safety Representatives (HSRs) about tool maintenance risks and controls • No documented WHS policy or standards specifically covering repair and replacement of tools • Failure to monitor changes to legislation, Australian Standards and manufacturer requirements for powered and non-powered tools • Poor integration of tool maintenance requirements into overall WHSMS (e.g ISO 45001 or equivalent)	4A	• Define and document PCBU, officer, manager and supervisor responsibilities for tool maintenance, repair and replacement in the WHS governance framework • Develop and maintain a WHS policy and supporting standard specifically addressing the safe management of tools as plant, including maintenance, repair, replacement and disposal • Establish a legal and standards register covering relevant WHS legislation, Codes of Practice and Australian Standards relating to tool safety and maintenance (e.g. AS/NZS 3760, AS/NZS 4024, electrical safety regulations) • Implement a regular compliance review process (e.g. annual) to verify that tool maintenance practices align with WHS Act and WHS Regulations, manufacturer instructions and applicable standards • Embed consultation requirements into the tool maintenance procedure, including mechanisms for workers and HSRs to provide input into risk assessments and system improvements • Include tool maintenance governance and compliance metrics in WHS leadership reports, with clear actions and management review actions	3H
2. Tool Procurement, Selection & Design Suitability	• Procurement of low-quality or inappropriate tools that are difficult to maintain safely • Failure to consider lifecycle costs (including maintenance, spares, training and testing) when purchasing tools • Purchase of tools that are not compliant with Australian Standards or lack appropriate guarding, insulation or safety features • Incompatibility between new tools and existing maintenance systems (e.g. unusual fittings, non-standard batteries, proprietary test equipment) • Sole sourcing from suppliers without adequate support, spares availability or technical advice • Selection of tools that are not suitable for the environment (e.g. non-EX rated	4A	• Establish a formal tool procurement standard that requires WHS and maintenance input into all tool purchasing decisions • Specify minimum safety and compliance criteria for tools (e.g. compliance with relevant Australian Standards, guards and interlocks, insulated handles, vibration and noise performance) • Require suppliers to provide documentation, maintenance manuals, spare parts lists, and evidence of compliance (e.g. test certificates) prior to purchase • Adopt a preferred tools list that standardises models and brands to simplify maintenance, training and spare parts management • Include whole-of-life costing in procurement assessments, covering maintenance intervals, replacement schedules, calibration needs and testing requirements • Ensure environmental suitability is documented (e.g. IP rating, explosive atmosphere requirements, corrosion resistance) and verified before tools are approved for site use	2M

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	tools in hazardous areas, tools not rated for wet or corrosive conditions)			
3. Tool Inventory, Registration & Traceability	• Lack of a complete tool register leading to tools being missed from maintenance and inspection programs • Inability to trace the history of repairs, failures and incidents associated with specific tools • Use of unregistered or privately owned tools on site without verification of condition or compliance • Misidentification of tools (e.g. no serial number or asset ID), making recall or quarantine ineffective • Tools circulating between sites or vehicles without a system to track where they are and who is responsible • Difficulty in identifying tools that are overdue for testing, tagging, or scheduled replacement	4A	• Implement a centralised tool register (digital asset management system) that records type, make, model, serial number, location, owner and status of all portable tools • Assign unique asset IDs to all tools, including powered hand tools, specialised equipment and high-risk tools, with durable labelling or engraving • Develop and enforce a procedure that prohibits use of non-registered or privately owned tools on company worksites unless they are inspected, tagged and entered in the register • Link the tool register to maintenance schedules, inspection dates and test tags so that overdue items are automatically flagged • Implement site-level tool sign-out or allocation systems (e.g. tool crib, digital check-in/check-out) to track custody and responsibility • Include fields in the register for incident history, near-misses, repair records, warranty claims and disposal dates for each tool	2M
4. Preventive Maintenance Planning & Scheduling	• No formal preventive maintenance program, resulting in reactive breakdown-based repairs • Maintenance intervals not aligned with manufacturer recommendations or usage rates or environmental conditions • Failure to include critical tools in preventive maintenance schedules, leading to unexpected failures • Overreliance on informal checks by workers without structured inspection criteria • Inadequate planning for parts and downtime, causing pressure to use unserviceable tools or bypass safeguards • Missing or inconsistent test and tag cycles for electrical tools	4A	[redacted]	2M
5. Repair, Replacement & Quarantine Decision-Making	• Damaged or faulty tools remaining in circulation due to unclear criteria for repair vs replacement	4A	[redacted]	2M

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	• Workers continuing to use known defective tools because they are unsure of reporting and quarantine requirements • Inappropriate repairs (e.g. makeshift fixes, non-genuine parts, unqualified persons) compromising tool integrity • Economic pressure to repair rather than replace tools that have reached end-of-life or are repeatedly failing • No formal process to verify tools as safe before returning them to service after repair • Inadequate quarantine controls allowing defective tools to re-enter service		[redacted]	
6. Competency, Training & Supervision for Tool Maintenance	• Untrained or underqualified personnel conducting tool inspections, repairs or replacements • Lack of understanding of manufactu instructions, safe limits and signs of to degradation • Inadequate supervisi or oversight of apprentices, new st ters or contractors performing mainte nce tasks • No formal compete mication refresher training for maintenance personnel and supervisors • Maintenance staff unawa legal obligations, isolation procedures, or electrical safety requirements • Inconsistent understanding of what faults require immediate removal from service versus scheduled repair	4A	[redacted]	2M
7. Worker Pre-Use Checks & Defect Reporting Systems	• Workers failing to identify obvious defects (e.g. damaged cords, missing guards, cracks, excessive vibration) before using tools • No consistent, easy-to-use system for reporting damaged or faulty tools	3H	[redacted]	2M

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	• Perceived or actual negative consequences for reporting tool defects (fear of blame, loss of productivity) • Reliance on verbal reporting leading to lost or incomplete defect information • Defect reports not actioned promptly, leading to frustration and informal workarounds • Inconsistent application of pre-use checks across different workgroups or sites		[redacted]	
8. Contractor and External Service Provider Management	• Use of external repairers or test and tag providers who are not competent or do not follow required standards • Poor communication of site-specific WHS requirements to external maintenance providers • Inconsistent quality of repairs, testing and documentation from different service providers • Lack of verification that contractor-maintained tools meet company standards before being introduced to the workplace • Contractor tools entering the workplace without adequate inspection, registration or tagging • Inadequate oversight of contractor performance regarding tool maintenance and safety	3H	[redacted]	2M
9. Storage, Handling, Transport & Environmental Protection of Tools	• Tools stored in conditions that promote deterioration (e.g. damp, dust, corrosive atmospheres, direct sunlight) • Uncontrolled transport of tools in vehicles leading to impact damage, misalignment or contamination • Improper storage of sharp or heavy tools increasing risk of damage to guards and protective features • Battery tools exposed to extreme temperatures or incorrect charging	3H	[redacted]	2M

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	storage practices, damaging cells and electronics • No system to segregate calibrated or specialised tools from general use, causing misuse or damage • Inadequate protection for tools used in remote or harsh environments, leading to accelerated wear and hidden defects		[redacted]	
10. Documentation, Records & Information Management	• Incomplete or missing records of inspections, repairs, test and tag and replacements for tools • Inability to demonstrate compliance during audits, regulator visits or incident investigations • Outdated maintenance procedures, manuals or instructions being used by workers and maintenance personnel • Loss of historical data that would otherwise highlight recurring failures or systemic issues • Multiple conflicting data sources (paper, spreadsheets, apps) leading to confusion and errors • Poor version control of risk assessments and maintenance strategies	3H	[redacted]	2M
11. Change Management, New Technology & Modifications to Tools	• Uncontrolled modifications to tools (e.g. removing guards, altering handles, changing blades or accessories contrary to specification) • Introduction of new tool types or technologies (e.g. high-torque battery tools, laser tools) without proper risk assessment and maintenance planning • Failure to update maintenance procedures and training when tools are upgraded or replaced • Compatibility issues when using non-original accessories or attachments, increasing mechanical or electrical stress	4A	[redacted]	2M

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	• No review of tool safety implications when work methods or materials change (e.g. harder materials requiring higher forces) • Workers informally altering tools to make tasks easier, bypassing built-in safety features			
12. Incident, Near-Miss & Defect Trend Analysis	• Recurring tool-related incidents or near-misses not being analysed for systemic causes • Focus on operator error rather than underlying maintenance, procurement or training issues • Poor linkage between incident investigation outcomes and updates to maintenance programs or tool standards • Near-miss and defect data not captured or underreported, masking emerging risks • Failure to share lessons learned acro[redacted] sites or workgroups, leading to repeat events • No measurable perfo[redacted] indicators for tool safety and m[redacted]intenance effectiveness	3H	[redacted]	2M
13. Resource Allocation, Workload & Time Pressure on Maintenance	• Insufficient mainte[redacted]esources (people, time, budget) leading to bac[redacted]og and deferred work on tools • Production or project dea[redacted] causing pressure to use tools that are overdue for maintenance or known to be defective • Maintenance work scheduled at unsuitable times, resulting in rushed or incomplete inspections and repairs • Lack of contingency tools or spares driving continued use of worn or faulty equipment • Inadequate planning for surge periods, shutdowns or projects that require additional tools and maintenance support	3H	[redacted]	2M

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	• Maintenance staff fatigue or excessive workload leading to errors in inspection and repair quality			
14. Remote, After-Hours and Field Tool Maintenance Arrangements	• Field workers in remote or after-hours situations improvising tool repairs without access to proper facilities or parts • Limited supervision or oversight of tool condition in remote locations • Inadequate systems for returning tools from remote sites for scheduled maintenance and testing • Poor communication channels for reporting defects or seeking technical advice in the field • Use of local or ad-hoc repair services that do not meet company WHS or quality standards • Difficulty in enforcing company maintenance standards across multipl or temporary sites	3H	[redacted]	2M
15. Emergency Preparedness & Response for Tool-Related Incidents	• Delayed or ineffective re ponse to injuries or fires resulti from tool failure (e.g. electrical sho battery fire, mechanical failure • Workers not traine iate or se re tools after a serious incident for investigation • Lack of specific emerge procedures for high-risk tools (e.g. grinders, saws, high-energy equipment, lithium-ion batteries) • Inadequate first aid equipment or capability for common tool-related injuries (cuts, eye injuries, burns, crush injuries) • Failure to promptly quarantine all similar tools after a serious incident involving a specific model or batch • Poor communication to regulators and workers after notifiable tool-related incidents	3H	[redacted]	2M

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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