Cordless Power Tools Battery Operated Drills and Drivers

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:

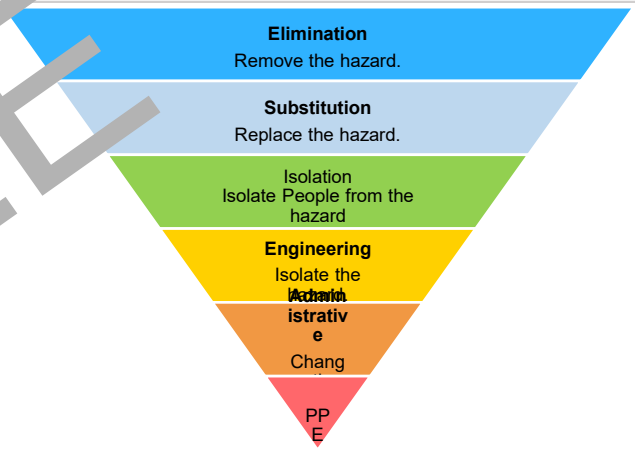
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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 and Legislative Compliance	• Lack of clear allocation of WHS duties for procurement, use and maintenance of cordless power tools • No documented WHS policy specifically addressing battery operated drills and drivers • Failure to incorporate WHS Act 2011 and WHS Regulation requirements into organisational procedures • Inadequate consultation with workers and Health and Safety Representatives on cordless power tool risks • Inadequate consideration of relevant Australian Standards for electric powered hand tools and batteries • Poor integration of power tool risks into the organisation's overall risk management framework	4A	• Develop and endorse a WHS policy that ex[illegible]itly covers battery powered hand tools, cordless power tools and related equipment, aligned with th[illegible]WHS Act 2[illegible] and Regulations • Define and document officer, PCBU, manage[illegible]supervisor responsibilities for safe selection, use, storage and maintenance of power drills, drivers[illegible]d engravers • Incorporate relevant Australia[illegible]Standards (e.g. A[illegible]NZS [illegible]745, AS/NZS 3760, AS/NZS 3012 where applicable) into organisational p[illegible]edures and specifi[illegible]ons • Establish a for[illegible] risk ma[illegible]geme[illegible]procedure[illegible]r handheld electric tools, including hazard identification, risk assessm[illegible], control im[illegible]ementa[illegible]n and[illegible]view • Imple[illegible]ent st[illegible]ured c[illegible]sultation me[illegible]anisms (toolbox talks, HSR meetings, safety committees) to revie[illegible]rdless p[illegible]ol risks and controls regularly • Integ[illegible]e[illegible]rdless[illegible]wer tool risk controls into the organisation's WHS management system and audit schedu[illegible]	3H
2. Procurement, Selection and Suitability of Cordless Power Tools	• Purchase of low-quality, non-compli[illegible] cordless drills and drivers without required safety features • Tools not fit for purp[illegible]s for drilling through various ma[illegible]ials (e.g. masonry, metal, timber) incr[illegible]sing risk of mechanical failure [illegible]mis[illegible] • Incompatibility between tools, batte[illegible]es and chargers leading to overheatin[illegible]or battery damage • Lack of standardisation across brands increasing complexity of training, inspection and maintenance • Selection of tools with excessive vibration, noise or weight contributing to long-term health issues • Failure to consider environmental conditions (wet areas, confined spaces, explosive atmospheres) in tool selection	4A	• Implement a formal procurement procedure requiring verification of compliance with relevant Australian Standards and supplier safety documentation for all cordless power tools • Standardise brands and models of battery operated drills, drivers and engravers across the organisation where practicable to simplify training and maintenance • Specify safety features in purchasing criteria such as electronic brakes, overload protection, torque limiting, insulated gripping surfaces and low-kickback design • Require that tools, batteries and chargers are sourced as compatible systems from the same manufacturer and are not mixed across brands • Include ergonomic and human factors criteria (weight, grip design, trigger force, vibration and noise ratings) in procurement decisions for extensive use of hand and power tools • Assess the typical work environments and ensure intrinsically safe or suitably rated tools are selected where there is a risk of ignition or electrical exposure	2M
3. Battery System Management and Charging Infrastructure	• Improper recharging of batteries for cordless power tools leading to overheating, fire or explosion	4A	• Develop a documented battery management procedure covering selection, use, inspection, storage, transport and recharging of battery-operated tools	2M

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
	• Use of non-genuine or incompatible chargers and batteries without appropriate protection circuitry • Charging batteries in poorly ventilated spaces or near flammables increasing fire spread risk • Lack of system for identifying damaged, swollen or degraded batteries • Inadequate procedures for storage and transport of lithium-ion batteries • Uncontrolled charging in vehicles, site sheds or temporary work areas without fire protection		• Mandate the use of only manufacturer-approved and compatible batteries and chargers, with procurement controls to prevent purchase of unapproved items • Establish designated battery charging stations with adequate ventilation, non-combustible surroundings, appropriate signage and separation from flammable materials • Implement a routine visual inspection process and tagging/segregation system for identifying and removing damaged or swollen batteries from service • Provide and maintain suitable fire protection (e.g. appropriate fire extinguishers, fire blankets) and emergency response instructions at battery charging areas • Prohibit ad-hoc charging of batteries in vehicles or unapproved locations through policy and periodic compliance checks	
4. Electrical Safety and Inspection Regime	• Failure to test and inspect chargers and associated electrical equipment leading to electric shock or fire • Undetected damage to cords, plugs and chargers used for recharging battery-operated tools • Inadequate earthing or RCD protection on supply circuits for charging installations • Lack of systematic approach to defect reporting and equipment isolation from service • Use of cordless tools in wet or conductive environments without appropriate controls	3H	[redacted]	1L
5. Training, Competency and Authorisation	• Lack of training in correct use of portable power tools leading to misuse or unsafe improvisation • Workers operating power tools without understanding manufacturer instructions or limitations • Inadequate competency in drilling through various materials, increasing likelihood of kickback or bit failure • New starters and labour-hire workers using handheld power tools without site-specific induction	4A	[redacted]	2M

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
	• No system to restrict high-risk power tool use to competent and authorised workers • Limited awareness of battery hazards, including charging, storage and emergency response		[redacted]	
6. Safe Work Procedures and Information Management	• Absence of documented procedures for operating battery powered hand tools safely at a system level • Reliance on informal instructions or on-the-job habits, leading to inconsistent practices • Failure to incorporate manufacturer guidance and limitations into organisational procedures • Outdated or inaccessible procedures not aligned with current fleet of cordless power tools • No structured system for communicating updates or safety alert about power tools	3H	[redacted]	1L
7. Supervision, Monitoring and Behavioural Safety	• Operating power tool[redacted] necessary PPE due[redacted] poor supervision and enforcement • Normalisation of u[redacted]ortcuts [redacted]h as bypassing safety features or usin[redacted] wrong attachments • Supervisors lacking com[redacted]nce to identify unsafe use of using handheld electric tools • No structured observation program to detect unsafe behaviours around cordless power tools • Under-reporting of near misses involving power drills and drivers	3H	[redacted]	2M
8. Maintenance, Inspection and Asset Management	• Inadequate maintenance system for cordless power tools leading to use of defective equipment	4A	[redacted]	2M

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
	• No scheduled inspection regime for chucks, guards, triggers, torque controls and casings • Failure to manage tool life-cycle, resulting in continued use of tools beyond safe service life • Poor recording of repairs and maintenance history for electric powered hand tools • Inconsistent pre-use checks by workers due to lack of standardised process		[redacted]	
9. Workspace Planning, Housekeeping and Access Control	• Uncontrolled use of cordless power tools in congested or poorly arranged work areas • Inadequate segregation between tool use zones and pedestrian routes • Poor housekeeping leading to trip hazards, unstable workpieces and dropped tools • Unauthorised persons accessing and using tools without trai[redacted] authorisation • Inadequate stora[redacted] systems[redacted]g in damaged tools a[redacted]sories	3H	[redacted]	1L
10. Ergonomics, Fatigue and Health Monitoring	• Extensive use of hand a[redacted]r tools leading to repetitive strain injuries and musculoskeletal disorders • Exposure to vibration and awkward postures when using drills and drivers over prolonged periods • Fatigue contributing to loss of control of handheld power tools and poor decision-making • Insufficient job rotation or task variation for workers heavily reliant on battery operated tools	3H	[redacted]	2M

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
	• Lack of health monitoring for workers at risk from vibration, repetitive tasks or noise		[redacted]	
11. Personal Protective Equipment (PPE) Systems	• Systemic failure to ensure availability and enforcement of PPE requirements for work around power tools • Inadequate specification of PPE types for hazards such as flying debris, dust, noise and vibration • No centralised management of PPE supply, leading to workers operating power tools without necessary PPE • Poor fit, comfort or compatibility of PPE discouraging consistent use • Lack of training on correct selection, use and maintenance of PPE associated with cordless power tools	3H	[redacted]	1L
12. Contractor and Labour-Hire Management	• Contractors operating cordless power tools under different standards to the host PCBU • Labour-hire workers using site tools without adequate verification of competency or induction • Inconsistent communication of site-specific cordless tool procedures to external parties • Lack of clarity regarding responsibility for tool provision, maintenance and inspection between parties • Insufficient monitoring of contractor compliance with WHS Act 2011 duties related to handheld power tools	3H	[redacted]	2M
13. Environmental Conditions, Work Locations and Emergency Planning	• Use of cordless power tools in remote or isolated locations without adequate emergency support • Adverse environmental conditions (heat, cold, rain, dust) affecting safe operation of battery operated equipment	3H	[redacted]	1L

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
	• Inadequate consideration of confined space or elevated work when planning use of power drills and drivers • Lack of emergency response planning for power tool related incidents such as eye injuries, lacerations or battery fires • Insufficient communication systems for workers operating power tools alone or after hours		[redacted]	
14. Incident Management, Reporting and Continuous Improvement	• Under-reporting of incidents and near misses involving cordless power tools and batteries • Failure to identify underlying organisational causes such as inadequate systems or training • Poor dissemination of lessons learned from investigations across different sites or teams • No structured process to review and update risk assessments and controls after incidents • Data on tool-related injuries not integrated into overall WHS performance monitoring	3H	[redacted]	1L

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