Vibration Safety			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

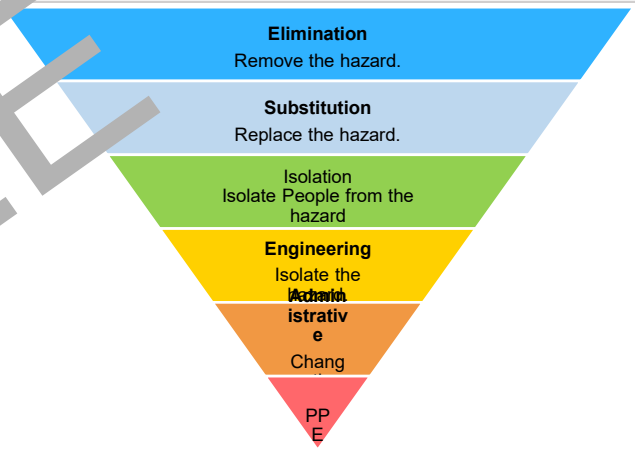
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

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. WHS Management, Policy & Legal Compliance (Vibration)	• Absence of a formal vibration safety policy aligned with WHS Act 2011 and WHS Regulations • Failure to recognise vibration (whole-body and hand–arm) as a significant hazard in the WHS management system • No clear vibration exposure criteria or action levels adopted (e.g. ISO 5349, ISO 2631, SafeWork guidance) • Lack of documented duties, responsibilities and accountabilities for managing vibration risks at all levels • Inadequate consultation with workers and Health and Safety Representatives (HSRs) about vibration-related risks • Failure to integrate vibration risk into existing risk registers, safety plans and contractor management frameworks • No documented process to manage health and safety duties for PCBUs, Officers and Workers relating to vibration • Inadequate consideration of vulnerable workers (pre-existing musculoskeletal or circulatory conditions, pregnancy, young workers)	4A	• Develop and implement a written Vibration Safety Policy that references WHS Act 2011, WHS Regulations and relevant standards (e.g. ISO 5349 for hand–arm vibration, ISO 2631 for whole-body vibration) • Formally recognise vibration as a key hazard within the organisational WHS risk management framework and risk registers • Define organisational vibration trigger and action levels and link them to control requirements (engineering, administrative and health monitoring) • Assign clear responsibilities for vibration management to officers, line management, supervisors and workers and incorporate into position descriptions • Establish documented consultation mechanisms with workers and HSRs regarding vibration safety, including toolbox talks and safety committee meetings • Integrate vibration risk controls into corporate WHS plans, procurement standards, contractor management systems and safe design processes • Ensure officers exercise due diligence by periodically reviewing vibration risk information, control effectiveness and compliance with legislation • Include consideration of vulnerable workers and fit-for-work requirements in the vibration risk management procedure	2M
2. Vibration Hazard Identification & Risk Assessment System	• No systematic process to identify all sources of vibration across the organisation (plant, tools, vehicles, fixed installations) • Failure to identify tasks involving close proximity to significant vibration sources (e.g. compactors, crushers, vibratory screens) • Inadequate assessment of cumulative exposure to vibration (multiple tools, multiple tasks, multi-day exposure) • No differentiation between whole-body vibration and hand–arm vibration exposure pathways	4A	• Implement a formal vibration hazard identification procedure covering whole-body and hand–arm vibration, including a structured plant and task inventory • Develop a vibration risk assessment tool or checklist that prompts assessment of close proximity to vibration sources and indirect exposures (e.g. through platforms or structures) • Include cumulative exposure assessment in the risk assessment methodology (total daily exposure, combination of tools, length of employment) • Differentiate clearly between hand–arm vibration (HAV) and whole-body vibration (WBV) in all risk assessments and control strategies • Include periodic and non-routine work (shutdowns, outages, construction phases) in the vibration risk assessment schedule • Require consideration of age, condition and modifications of equipment as risk factors in the assessment process	2M

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	• Lack of formal assessment for tasks with intermittent or seasonal use of vibrating equipment (e.g. maintenance shutdowns, roadworks) • Underestimation of risk from older, poorly maintained or modified vibratory equipment • Failure to consider environmental factors that amplify vibration (ground conditions, resonant structures, mounting arrangements) • No documentation or recording of vibration risk assessments, or assessments not periodically reviewed		• Incorporate environmental and structural factors (mounting, fixings, ground conditions) into the risk assessment checklist • Establish a review schedule so vibration risk asse[illegible]ents are updated after incidents, equipment changes, process changes or at defined interva[illegible]	
3. Plant & Equipment Procurement, Design & Selection (Vibration)	• Procurement of plant and tools with high vibration output due to lowest-cost purchasing practices • Failure to specify maximum vibration emission levels in purchase contracts and tender documents • Use of equipment not designed or certified for low-vibration performance [illegible] not suited to intended ta[illegible] • No requirement fo[illegible]suppliers to provide vibration emission [illegible]ata or test re[illegible]rts for vibrating equip[illegible]t • Lack of consideration of vibration isolation, damping and ergonomic design in the selection pr[illegible] • Failure to assess the whole life cost of vibration impacts (injuries, maintenance, downtime) in procurement decisions • Purchasing of second-hand or refurbished equipment without vibration performance verification • Inadequate review of modifications or attachments that increase vibration (e.g. incorrect bits, worn discs, unbalanced accessories)	4A	• Es[illegible]lis[illegible]a procurement standard that mandates selection of low-vibration plant and tools where [illegible]easona[illegible]practicable, referencing supplier vibration emission data • [illegible]clude clear vibration performance specifications, including HAV and WBV emission limits, in tender an[illegible]purchase documentation for all relevant plant • Require suppliers to provide documented vibration emission values measured in accordance with recognised standards and for realistic operating conditions • Incorporate engineering controls such as integral damping systems, anti-vibration handles, vibration damped seats and isolation mounts in equipment specifications • Adopt a whole-of-life cost approach that includes expected health impacts, downtime and maintenance linked to vibration exposure • Introduce a pre-purchase risk assessment process that evaluates vibration output, suitability for task and anticipated exposure durations • Implement a policy that second-hand or modified equipment must be verified or tested for vibration emissions before approval for use • Develop standardised tool and plant lists that prioritise low-vibration models for high-use and HAV-critical tasks	2M

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4. Engineering Controls & Physical Design to Control Vibration	• Reliance on administrative controls alone without engineering measures to control vibrations from machinery • Lack of vibration isolation between machines and building structures, platforms or operator stations • Use of rigid mounts rather than damped or flexible mounts on vibratory equipment • Inadequate design of workstations leading to increased transmission of vibration to workers • No consideration of damping or balancing for rotating or reciprocating plant components • Inadequate guarding or physical separation leading to exposure for workers in close proximity to vibration sources • Failure to design or modify processes to avoid high-vibration tasks where alternative methods exist	4A	[redacted]	2M
5. Maintenance, Inspection & Calibration Systems (Vibration)	• Inadequate preventative maintenance programs leading to increased vibration due to wear, imbalance or looseness • No scheduled inspection regime for vibration-critical components such as bearings, mounts, discs, tynes and cutting heads • Failure to monitor equipment vibrations over time to detect deterioration or fault conditions • Lack of calibration or verification of vibration testing instruments and sensors • Poorly documented maintenance, making it difficult to link vibration issues with plant condition • Uncontrolled repairs or modifications that increase vibration levels or bypass original design features	4A	[redacted]	2M

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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
	• Delayed repair of reported high-vibration conditions due to poor work order prioritisation or resourcing		[redacted]	
6. Exposure Monitoring, Measurement & Data Management	• No formal program to monitor exposure to hand–arm vibration syndrome (HAVS) and whole-body vibration • Reliance on anecdotal information or supplier brochures without on-site vibration measurement for critical tasks • Inadequate consideration of cumulative exposure from multiple vibrating tools and tasks across a shift or roster • Absence of exposure records, hindering review of long-term risks and regulatory compliance • Inaccurate exposure estimation due to poor measurement technique, unrepresentative conditions or untrained personnel • Lack of systems to identify and flag workers regularly involved in HAV-related tasks or high WBV roles • Failure to review monitoring data and adjust controls when exposure action values are exceeded	4A	[redacted]	2M
7. Work Planning, Job Design & Exposure Time Management	• Poor workload and roster design leading to excessive cumulative exposure to vibration from hand tools and machinery • Tasks with prolonged gripping or awkward postures that exacerbate hand–arm vibration exposure • Lack of task rotation or job variety resulting in workers repeatedly performing high HAV or WBV tasks • Insufficient scheduled breaks or recovery periods from vibration-intensive work • Failure to plan work sequences to minimise concurrent use of multiple vibrating tools in the same area	4A	[redacted]	2M

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	• Inadequate consideration of weather or environmental conditions (cold, wet) that increase HAVS risk • Uncontrolled overtime that extends daily or weekly vibration exposure beyond planned levels		[redacted]	
8. Training, Competency & Information for Vibration Safety	• Lack of worker understanding of vibration hazards, including hand-arm vibration syndrome risks and whole-body effects • Inadequate training on correct use of vibrating tools and equipment to minimise vibration exposure • Supervisors not competent to review and manage vibration exposure for their teams • No training for workers to recognise early signs and symptoms of HAVS or vibration-related musculoskeletal disorders • Insufficient instruction for contractors on site-specific vibration risks and control measures • Lack of refresher training leading to erosion of correct practices over time	3H	[redacted]	2M
9. Health Monitoring & Early Intervention for HAVS and WBV	• Absence of a health monitoring program for workers with significant hand-arm or whole-body vibration exposure • Delayed recognition of hand–arm vibration syndrome due to lack of screening or symptom reporting channels • No process for medical assessment or redeployment when workers present with HAVS-related symptoms • Failure to consider pre-existing conditions that may be worsened by	3H	[redacted]	1L

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	vibration (vascular, neurological, spinal, muscular) • Lack of privacy or support leading to under-reporting of vibration-related health issues • Inadequate integration of health monitoring findings into risk assessments and control reviews		[redacted]	
10. Contractor Management & Third-Party Interface (Vibration)	• Contractors using high-vibration tools or methods not aligned with the PCBU's vibration safety standards • Lack of clarity over responsibilities for controlling vibration exposures when multiple PCBUs share a workplace • Inadequate pre-qualification of contractors regarding their vibration management systems and HAVS prevention programs • Failure to communicate on-site close-proximity vibration hazards to contractors (e.g. near fixed vibratory plant or heavy equipment) • Contractor supervision focusing only on productivity rather than compliance with vibration exposure controls • No requirement for contractors to report vibration-related incidents, health issues or near misses	3H	[redacted]	2M
11. Procedures, Safe Systems of Work & Documentation	• Absence of documented procedures for controlling vibration exposures from hand tools, power tools and machinery • Safe systems of work that focus on general safety but omit specific vibration controls and limits • Procedures that are overly task-based (SWMS style) without addressing higher-level system and management controls	3H	[redacted]	2M

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	• Inconsistent procedures between sites, leading to variable management of vibration hazards • Failure to embed vibration considerations into broader systems such as permit to work, isolation, and change management • Workers unaware of, or unable to access, current vibration-related procedures and guidance materials		[redacted]	
12. Management of Change (MOC) for Vibration-Related Modifications	• Introduction of new plant, tools or work methods that significantly alter vibration exposure without formal review • Modifications to equipment (attachments, speed changes, process changes) that increase vibration but are not assessed • Project and engineering changes that inadvertently increase worker proximity to vibration sources • Decommissioning or replacement of low-vibration equipment with higher-vibration models due to cost or availability pressures • Failure to reassess vibration exposure during organisational changes, relocations or expansions	3H	[redacted]	1L
13. Emergency Response, Incident Reporting & Investigation (Vibration)	• Workers not knowing how to respond to acute vibration-related events (e.g. sudden onset of numbness or loss of grip during work with vibratory equipment) • Under-reporting of vibration-related incidents, near misses or early symptoms • Incident investigations focusing solely on immediate causes, ignoring underlying system failures related to vibration management • Inadequate classification of vibration-related injuries, causing them	3H	[redacted]	2M

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	to be miscategorised as generic musculoskeletal injuries • Lack of corrective and preventive actions that specifically target vibration control systems		[redacted]	
14. Auditing, Review & Continuous Improvement in Vibration Management	• Lack of formal auditing of vibration control measures, leading to gradual degradation of standards • Failure to use monitoring data, incident findings and health monitoring results to improve vibration controls • Infrequent review of vibration risk assessments, procedures and training content • No defined performance indicators for vibration safety (e.g. exposure levels, compliance rates, health outcomes) • Complacency in management and workforce regarding vibration risks du to low immediate injury visibility	3H	[redacted]	2M
15. Workplace Environment, Layout & Proximity to Vibration Sources	• Poor workplace layout [illegible] unnecessary close p[illegible]inity to high-vibration mac[illegible]ery and structures • Lack of physical [illegible]aratio[illegible] vibrating equipment [illegible]djacent wo areas, increasing indirect exposure • Inadequate signage and [illegible]ation of high-vibration zones, particularly around large vibratory plant and equipment • Use of unsuitable foundations, floors or platforms that magnify or transmit vibration to occupied areas • Insufficient planning for traffic and pedestrian routes near mobile vibratory equipment (e.g. compactors, mobile plant) • Noise and vibration combined exposure leading to misjudgement of ground or equipment condition	3H	[redacted]	2M

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16. Information, Labelling & Technical Documentation for Vibrating Equipment	• Vibrating equipment not clearly labelled with vibration emission data or safe operating limits • Operating manuals and technical information not readily available or not specific to the equipment configuration in use • Workers using tools and equipment without understanding the vibration performance differences between models or attachments • Lack of documented tool charts or guidance on relative vibration exposure for commonly used equipment • Incorrect assumptions about the safety of new equipment due to marketing claims without supporting technical data	2M	[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 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