

Compactor (Vibrating Plate)

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS 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	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	

Risk Rating & Required Action:	
4A	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
3H	Review and approve additional controls for the task parts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. 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. Procurement, Hire and Selection of Compaction Equipment	<ul style="list-style-type: none"> • Selection of compactors (vibrating plates, trench rollers, hydraulic tampers, soil compactors, rollers) that are not fit for purpose for work near pools, trenches or on unstable ground • Procurement of plant without compliant guarding, emergency stops, remote-control safety features or vibration-dampening technology • Lack of documented verification that new or hired compactors comply with WHS Act 2011, WHS Regulations and relevant Australian Standards (e.g. AS 4024 series, AS/NZS 3012 for electrical, plant registration requirements) • Hire arrangements that do not include provision of operating manuals, maintenance history, risk assessments and safety data from the supplier • Inadequate consideration of noise and vibration output during selection, leading to excessive exposure to whole-body vibration and hand-arms vibration • Failure to consider terrain, gradients, proximity to water, underground services and restricted access when selecting plant (e.g. using large rollers instead of remote trench rollers in confined excavations) • No standard for selection of low-emission or low-noise options for indoor or semi-enclosed pool areas, increasing risk of fume build-up and hearing damage 	High	<ul style="list-style-type: none"> • Establish a formal plant procurement and hire procedure that requires WHS review and sign-off before purchasing or hiring any compactor, vibrating plate, roller or tamping equipment • Specify compliance with WHS Act 2011, WHS Regulations and relevant Australian Standards as mandatory conditions in purchasing and hire contracts • Adopt a plant selection checklist that considers: task type (soil around pools, trenches, slabs), ground conditions, access, constraints, proximity to edges and water, and need for remote operation or smaller units • Require suppliers and hire companies to provide evidence of compliance (CE/Australian conformity marking, test certificates, manuals, maintenance logs and any existing risk assessments) • Prioritise equipment with engineered risk controls such as vibration-dampened handles, dead-man control, automatic shut-off, roll-over protection systems (ROPS) and remote-control capability for trench rollers • Integrate noise and vibration performance limits into procurement criteria, including maximum vibration magnitude and sound power levels, and prefer lower-emission engines or electric units where practicable • Ensure all new plant is entered into the organisation's plant register with make, model, serial number, intended use, limitations and specific WHS control requirements prior to first use • Implement a management of change process for introducing new compaction technologies (e.g. new remote control systems) including WHS review, trial, and user feedback before full deployment 	Medium
2. Planning, Job Design and Site Layout for Compaction Activities	<ul style="list-style-type: none"> • Poor planning of compaction work around pools, trenches and edges leading to loss of control of machines and potential falls into excavations or water • Inadequate separation of compaction plant from pedestrians and other mobile plant, increasing collision and run-over risks 	High	<ul style="list-style-type: none"> • Implement a formal pre-job planning process for all compaction works that includes a documented WHS risk assessment and safe system of work before commencing on site • Develop standard planning templates that address access, egress, exclusion zones, traffic management, proximity to edges and water, and interaction with other workgroups • Require confirmation of ground conditions and compaction requirements (including engineering or geotechnical input for high-risk excavation or pool construction projects) prior to selecting equipment size and type 	Medium

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	<ul style="list-style-type: none"> Lack of formal consideration of ground stability, backfill quality and bearing capacity before operating soil compactors and rollers No systematic review of underground and hidden services (gas, electrical, water, pool plumbing) before compacting soil or using hydraulic tampers Failure to plan for fume, dust, vibration and noise impacts on adjacent workers, neighbours and pool users, particularly in enclosed pool areas Insufficient planning for emergency access and egress routes when large rollers or trench rollers are operating in constrained workspaces Inadequate scheduling of work shifts and rotation for operators using vibrating tools, leading to excessive cumulative vibration exposure 		<ul style="list-style-type: none"> Mandate a documented services search (dial-before-you-dig, as-built plans, service locators) and permit-to-excavate system before any compacting over or near known or suspected services Define standard exclusion zone requirements around compactors and rollers, including use of barriers, bunting or fencing and clear demarcation of pedestrian routes Plan for ventilation, noise control and dust suppression where compactors are used in semi-enclosed or indoor pool environments, including limits on concurrent noisy or fume-generating tasks Integrate operator rotation and maximum daily exposure times to vibrating tools into work schedules, referencing current guidance on hand-arm and whole-body vibration Ensure emergency response planning includes retreat from excavations or pools, first aid for crush injuries and vibration-related disorders, and clear communication channels during compaction work 	
3. WHS Governance, Policies and Risk Management System for Compaction Plant	<ul style="list-style-type: none"> Absence of an overarching plant and equipment safety policy covering compactors, rollers and vibrating tools Inconsistent or ad-hoc risk assessment practices, leading to unmanaged hazards for specialised activities such as compacting around pools or in trenches Poor integration of compaction-related risks into the organisation's WHS management system, resulting in unclear roles, responsibilities and accountabilities Insufficient management review of incidents, near misses and inspection findings involving compactors and vibrating equipment Failure to consult with workers and health and safety representatives on compaction-related risks and controls Lack of documented criteria for when additional controls (e.g. remote control trench rollers, edge protection, engineered restraints) are mandatory 	High	<ul style="list-style-type: none"> Develop and implement a comprehensive plant and equipment safety policy that explicitly includes compactors, vibratory plates, trench rollers, hydraulic tampers and rollers Embed a formal risk management procedure aligned to the WHS Act 2011 and Regulations, requiring identification, assessment, control and review of risks for all compaction activities Define clear WHS roles and responsibilities (officers, managers, supervisors, operators, maintenance personnel) for the safe management of compaction plant within the WHS management system Establish a requirement for task-specific risk assessments or job safety analyses for higher-risk applications such as work near pools, in trenches or on slopes Implement structured consultation processes (toolbox talks, safety committees, pre-start meetings) to discuss compaction-related risks and gather worker input on control effectiveness Introduce governance rules specifying minimum controls for defined scenarios, for example mandatory remote trench rollers for deep or narrow excavations and edge protection near pools Set up a process for regular WHS management review of plant-related incidents and near misses, including trend analysis and tracking of corrective actions Nominate a responsible person or committee to monitor regulatory updates, Safe Work Australia guidance and Australian Standards on plant and vibration and to update internal procedures accordingly 	Medium

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	<ul style="list-style-type: none"> No systematic monitoring of regulatory changes, standards or industry guidance relating to plant and vibration risks 			
4. Training, Competency and Supervision of Operators and Spotters	<ul style="list-style-type: none"> Operators using plate compactors, rollers and vibrating tools without appropriate competency or verification of skills Insufficient training on specific hazards associated with compacting near pools, trenches, retaining walls and other voids Limited understanding of vibration-related health risks, noise exposure, manual handling loads and safe body positioning Supervisors lacking competence to monitor safe use of compaction plant and to intervene when unsafe behaviours are observed No structured onboarding or refresher training program for new equipment models, control layouts or remote control systems Failure to train and assess dedicated spotters or traffic controllers where interaction with other plant and pedestrians is likely Poor knowledge of emergency stop procedures, isolation methods and incident reporting requirements for plant-related events 	High	<p>[REDACTED]</p>	Medium
5. Mechanical Integrity, Maintenance and Inspection Systems	<ul style="list-style-type: none"> Failure or malfunction of compactors, rollers or hydraulic tampers due to inadequate preventative maintenance Non-functional safety devices (emergency stops, guards, dead-man controls, remote shut-off) not identified due to poor inspection processes Excessive vibration, noise or emissions caused by worn components, leading to increased health risks and loss of machine control Hydraulic leaks, fuel spills and oil contamination creating slip hazards and 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Low

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	<p>environmental risks near pool excavations and on compacted surfaces</p> <ul style="list-style-type: none"> • Use of improvised repairs or non-approved modifications that compromise safety and compliance • Lack of traceable service history for hired plant or shared equipment across multiple sites 		[REDACTED]	
6. Exposure to Noise and Vibration from Compaction Plant	<ul style="list-style-type: none"> • Chronic exposure to whole-body vibration from ride-on rollers and soil compactors • Hand-arm vibration exposure from prolonged use of plate compactors, tampers and vibrating tools • Excessive noise levels from engine and vibrating plates exceeding exposure standards and contributing to hearing loss and fatigue • Lack of organisational controls to monitor and manage cumulative noise and vibration doses across tasks and sites • Failure to consider at-risk persons such as workers with pre-existing musculoskeletal or circulatory conditions when allocating compaction tasks 	High	[REDACTED]	Medium

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7. Traffic Management and Interaction with People and Other Plant	<ul style="list-style-type: none"> • Collisions between compactors or rollers and pedestrians, especially in congested construction areas and around pool excavations • Interaction with trucks, excavators and other mobile plant without clear right-of-way rules or communication systems • Restricted visibility for operators of ride-on compactors and trench rollers in narrow or obstructed areas • Unauthorised persons entering work zones while compacting activities are in progress • Lack of coordinated traffic management when multiple contractors are working on the same site 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium
8. Work Environment, Ground Conditions and Structural Stability	<ul style="list-style-type: none"> • Ground collapse or subsidence during compaction near trenches, retaining walls or pool excavations • Failure of temporary shoring or formwork due to vibration or excessive compaction passes • Loss of machine stability on sloping, wet or uneven ground surfaces • Inadequate control of water, including seepage into excavations or around pools, contributing to instability and slips • Unplanned vibration effects on adjacent structures, services or pool shells 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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			[REDACTED]	
9. Management of Hazardous Substances, Dust, Fumes and Heat	<ul style="list-style-type: none"> Exposure to exhaust fumes from petrol and diesel compactors and rollers, particularly in confined or semi-enclosed pool environments Generation of airborne dust during soil compaction leading to respiratory irritation or exposure to contaminants in soil Heat stress for operators and nearby workers during prolonged outdoor compaction, especially on hot surfaces such as asphalt Inadequate storage, handling and spill control for fuels, oils and lubricants used with compaction plant Poorly managed emissions impacting members of the public or other workers in adjacent areas 	High	[REDACTED]	Medium
10. Manual Handling, Access and Ergonomic Management	<ul style="list-style-type: none"> Musculoskeletal strain from manoeuvring plate compactors and tampers, particularly in confined spaces around pools or inside trenches Repetitive forceful grip and awkward postures when operating vibrating tools over extended periods 	Medium	[REDACTED]	Low

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	<ul style="list-style-type: none"> Manual loading and unloading of compactors from vehicles or trailers without mechanical assistance Poor design of access routes and ramps leading to slips, trips and falls while moving compactors Lack of organisational focus on ergonomic hazards in planning of compaction tasks 		[REDACTED]	
11. Contractor Management and Multi-PCBU Coordination	<ul style="list-style-type: none"> Inconsistent safety standards and procedures for compaction work between principal contractor, subcontractors and hire companies Lack of clarity about which PCBU controls specific risks associated with compaction near pools, trenches and public interfaces Insufficient exchange of information about plant hazards, site conditions and concurrent activities between multiple contractors Failure of subcontractors to provide evidence of operator competency, plant maintenance and risk assessments for compactors and rollers Gaps in emergency response arrangements where several PCBUs are present on the same site 	High	[REDACTED]	Medium
12. Incident, Near Miss and Health Monitoring, and Continuous Improvement	<ul style="list-style-type: none"> Recurring incidents or near misses involving compactors and rollers not identified due to weak reporting culture Health effects from noise, vibration or manual handling not detected early 	Medium	[REDACTED]	Low

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	because of inadequate health monitoring systems • Ineffective corrective actions leading to repeat failures of management controls for compaction activities • Lack of learning from industry-wide incidents, regulator alerts or technical bulletins related to compaction plant		[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	

SAMPLE

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>

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>

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-codes-of-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>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011
 Work Health and Safety (National Uniform Legislation) Regulation 2011
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-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>

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>

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

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.