

Roller, Compactor

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|-------------------|--------|--------|--|
| 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 before task starts. 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 and Commissioning of Asphalt Roller and Vibrating Plate Compactor | <ul style="list-style-type: none"> Plant purchased or hired without verification of compliance with WHS Act 2011, WHS Regulations and relevant Australian Standards (e.g. AS 5327, AS 4024 series) Inadequate supplier information about safe use, limitations, vibration levels, noise output and maintenance requirements Lack of documented plant risk assessment prior to first use on site Roller or compactor not suited to site conditions (gradient, ground stability, access constraints, underground services) Missing or non-functional safety features (ROPS, seat belts, emergency stop, vibration isolation, guarding, reversing alarm, lighting, interlocks) No formal process to verify condition and compliance of hired-in equipment Inadequate documentation for attachments and auxiliary equipment (e.g. drum scraper, edge compactors, water spray system) | High | <ul style="list-style-type: none"> Establish and enforce a formal plant procurement procedure that requires proof of compliance with WHS Act 2011, WHS Regulations and applicable Australian Standards before purchase or hire of asphalt rollers and vibrating plate compactors Require suppliers to provide manufacturer's instructions, plant risk assessments, service records, vibration and noise data, and evidence of compliance (CE, Standards, declarations) as part of procurement documentation Implement a pre-hire commissioning plant risk assessment process for all new or hired rollers and compactors, documented and approved by a competent person before being released to operations Develop a plant selection guideline that specifies minimum safety and functionality requirements for asphalt rollers and vibrating plate compactors, including ROPS, seat restraints, adequate lighting, reversing alarms, lights, vibration controls, and ergonomics Implement a formal acceptance inspection checklist for all procured or hired plant, verifying safety devices, controls, labels and emergency systems are functional and in good condition Include contract clauses with plant hire providers mandating maintenance standards, pre-hire inspection, defect reporting, and the right to reject non-compliant equipment Maintain a central plant register capturing make, model, serial number, SWL, safety features, and key parameters (noise, vibration, emissions) for all rollers and compactors Require management approval for any deviation from standard plant specifications, supported by documented risk assessment and additional controls | Medium |
| 2. Governance, WHS Responsibilities and Consultation | <ul style="list-style-type: none"> Lack of clear allocation of WHS duties for managing risks associated with vibratory rollers and compactors Insufficient officer due diligence regarding plant risks, leading to under-resourcing or weak controls Poor consultation with workers, operators and HSRs on plant selection, procedures and changes to systems of work No structured WHS committee discussion of plant-related incidents, near misses or improvement opportunities | High | <ul style="list-style-type: none"> Define and document specific WHS roles and responsibilities for PCBUs, officers, managers, supervisors and operators relating to management of asphalt rollers and vibrating plate compactors, in line with WHS Act 2011 Integrate plant safety responsibilities into position descriptions, performance plans and management KPIs, including expectations for supervision, inspections and incident review Establish regular consultation mechanisms (toolbox talks, WHS committee meetings, pre-start meetings) specifically including topics on roller and compactor risks and controls Ensure officers demonstrate due diligence by periodically reviewing plant risk registers, audit outcomes and incident trends, and allocating sufficient resources to plant safety improvements Implement a formal change management process requiring consultation with affected workers and HSRs before introducing new plant, technologies or significant procedural changes Embed roller and compactor risk management into the organisation's WHS management system, including policies, procedures, training frameworks and audit schedules | Medium |

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| | <ul style="list-style-type: none"> Inadequate integration of plant safety into broader organisational WHS management systems | | <ul style="list-style-type: none"> Provide targeted WHS training for managers and supervisors on their legal obligations regarding plant and high-risk construction work | |
| 3. Competency, Licensing and Training for Roller and Compactor Operators | <ul style="list-style-type: none"> Operators using asphalt rollers or vibrating plate compactors without formal verification of competency or experience Training limited to informal buddy systems without structured assessment or record-keeping Lack of awareness of plant limitations, stability characteristics, vibration exposure controls, exclusion zones and emergency procedures Supervisors not competent to assess and monitor operator performance and compliance with procedures No refresher training or re-assessment following incidents, near misses, equipment changes or extended absences Inadequate induction for contractors and labour hire workers entering the plant | High | <ul style="list-style-type: none"> Establish a competency-based training program for asphalt roller and vibrating plate compactor operators, incorporating theoretical and practical assessment against defined criteria Require verification of competency and, where relevant, high-risk work licences or VOC documentation before authorising operation to operate rollers or compactors Develop and implement a formal operator authorisation system (licence card or register) specifying the plant types each operator is approved to use and any restrictions Provide structured training covering plant characteristics, stability, vibration and noise risks, traffic management, communication protocols, pre-use checks, emergency stops and incident reporting Ensure supervisors receive training on how to assess competency, observe work practices, correct unsafe behaviours and apply the organisation's disciplinary and coaching processes Implement refresher training at scheduled intervals and after any incident, near miss, plant modification or procedure change involving rollers or compactors Include plant-specific WHS induction for contractors and labour hire personnel, with documented confirmation of competency and understanding of site-specific rules | Medium |
| 4. Planning, Job Design and Journey Management for Roller Operations | <ul style="list-style-type: none"> Inadequate planning of roller movements around structures, other plant and ground workers leading to collision or run-over risks No formal journey or movement plan for rollers moving between work zones, compounds or public roads Insufficient assessment of gradients, ground stability, edge conditions, underground services and overhead obstructions at planning stage Poor coordination with asphalt crews, trucks and compaction sequencing leading to time pressure and unsafe short cuts Lack of contingency planning for night works, low visibility, wet weather and emergency egress | High | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> | Medium |

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| | | | [REDACTED] | |
| 5. Traffic Management, Pedestrian Separation and Exclusion Zones | <ul style="list-style-type: none"> • Uncontrolled interaction between rollers, vibrating plate compactors, other mobile plant and pedestrians on site • Lack of designated exclusion zones around vibratory equipment, increasing risk of struck-by or run-over incidents • Inadequate traffic management plans or non-compliance with MUTCD and local road authority requirements • Poor communication between operators and ground crew, especially near blind spots and reversing operations • Visitors and subcontractors unaware of plant movement patterns and safe approach distances | High | [REDACTED] | Low |
| 6. Plant Inspection, Preventive Maintenance and Defect Management | <ul style="list-style-type: none"> • Failure of critical components (brakes, steering, vibration systems, ROPS, seat restraints) due to inadequate maintenance systems • Operation of rollers or compactors with known defects because of weak defect reporting and repair processes • Maintenance not carried out as per manufacturer's recommendations or Australian Standards • Service records incomplete or inaccessible, preventing effective oversight of plant condition • Uncontrolled modifications or repairs that compromise plant safety features or compliance | High | [REDACTED] | Medium |

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| | | | [REDACTED] | |
| 7. Vibration, Noise and Health Monitoring Systems | <ul style="list-style-type: none"> Excessive whole-body vibration for roller operators leading to long-term musculoskeletal and spinal disorders Hand-arm vibration exposure from vibrating plate compactors causing circulatory and nerve damage over time Occupational noise-induced hearing loss from prolonged exposure to high noise levels from rollers, compactors and adjacent plant Lack of exposure assessment and absence of health monitoring program for regular users of vibratory equipment No systematic approach scheduling work to manage cumulative vibration and noise exposure | High | [REDACTED] | Medium |
| 8. Procedures, Safe Systems of Work and Documentation | <ul style="list-style-type: none"> Absence of formal procedures for safe use of asphalt rollers and vibrating plate compactors at the system level Procedures outdated, inconsistent across sites or not aligned with current legislation and standards Safe work methods focused only on basic operational steps and not on underlying management responsibilities or system controls Workers and supervisors unaware of or not following documented procedures due to poor communication or accessibility | High | [REDACTED] | Low |

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| | <ul style="list-style-type: none"> Critical information from manufacturer manuals not incorporated into organisational procedures | | [REDACTED] | |
| 9. Site Supervision, Monitoring and Enforcement | <ul style="list-style-type: none"> Insufficient field supervision of roller and compactor operations leading to drift from expected standards Tolerance of unsafe behaviours such as bypassing safety devices, operating without authorisation, or working outside exclusion zones Inconsistent enforcement of PPE, traffic management and communication rules across shifts and crews Supervisors overloaded with competing tasks, reducing capacity to monitor plant operations effectively | High | [REDACTED] | Medium |
| 10. Contractor and Labour Hire Management | <ul style="list-style-type: none"> Contractor roller operators or compactor users working not adhering standards and procedures to the principal PCBU No verification of contractor competencies, licences or plant condition prior to site mobilisation Labour hire workers not adequately inducted into site-specific traffic management, vibration controls and emergency procedures Ambiguity about who is responsible for maintenance, defect rectification and incident investigation for contractor-supplied plant | High | [REDACTED] | Medium |

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| | | | [REDACTED] | |
| 11. Emergency Preparedness, Incident Response and Recovery | <ul style="list-style-type: none"> • Delayed or ineffective response to incidents involving rollers or compactors due to lack of planning and training • Workers unsure how to raise alarms, isolate plant or perform initial response after rollovers, collisions or crush injuries • Poor post-incident investigation leading to missed systemic issues and repeat events • No integration of plant-related emergencies into site emergency plans, particularly where work occurs on or near public roads | High | [REDACTED] | Low |
| 12. Documentation, Record Keeping and Continuous Improvement | <ul style="list-style-type: none"> • Inadequate records of training, maintenance, inspections, incidents and risk assessments for rollers and compactors • Lack of data to identify trends and emerging risks associated with laboratory equipment use • Repeat incidents and near misses due to poor follow-up and verification of corrective actions • Non-compliance with legal obligations to keep certain WHS and plant-related records | Medium | [REDACTED] | Low |

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| | | | | |

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.