

Wood Chipper

| | | | |
|-------------------|--------|--------|--|
| 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, Design Selection and Guarding Compliance | <ul style="list-style-type: none"> • Purchase of wood chipper that is not compliant with Australian Standards or WHS Act 2011 duties for safe plant • Inadequate fixed guarding around in-feed chute, discharge areas, belts, pulleys and rotating knives creating entanglement and amputation risks • Lack of emergency stop devices or poor location/accessibility of emergency stops • Insufficient consideration of noise, vibration and dust emissions at procurement stage • Failure to specify safety interlocks on covers and access panels leading to exposure to moving parts during maintenance • Inadequate documentation from supplier (operator manual, service manual, safety instructions, risk assessment) • Selection of plant not suited to intended use (e.g. feed capacity, mobility, guarding design not suited to operational environment) | 4A | <ul style="list-style-type: none"> • Implement a formal plant procurement procedure requiring pre-purchase WHS risk assessment and compliance check against WHS Act 2011, Work Regulation and relevant Australian Standards (e.g. AS 4024 series for machinery safety) • Specify minimum safety design features in procurement documents, including compliant guarding of all nip points, rotating components and in-feed/discharge areas • Require emergency stop systems that are fail-safe, clearly identified, and accessible from normal operating positions in accordance with AS 4024 • Include specification for interlocked guards and covers that prevent access to moving parts until motion has ceased • Require supplier to provide documentation in English including operation manual, maintenance manual, commissioning instructions and plant risk assessment • Undertake pre-delivery inspection and commissioning checklist to verify all safety features and guarding are installed and functional before first use • Maintain register of plant documenting make, model, serial numbers, design limitations and safety features for each wood chipper • Include assessment of noise and vibration emissions in design selection and require engineering controls (e.g. acoustic shielding, anti-vibration mounts) where reasonably practicable | 2M |
| 2. Site Planning, Layout and Public Interface Management | <ul style="list-style-type: none"> • Inadequate separation between wood chipper operations and public access areas leading to struck-by or contact incidents • Poor traffic management resulting in collisions between chipper, trucks, plant and pedestrians • Insufficient exclusion zones around in-feed and discharge areas causing exposure to ejected material and noise • Unsuitable set-up locations near overhead powerlines, underground services or unstable ground • Lack of signage and barriers leading to unauthorised entry into operational areas | 4A | <ul style="list-style-type: none"> • Develop and implement a wood chipping site planning and traffic management procedure that defines minimum exclusion zones, barricading and signage requirements • Require a documented site-specific risk assessment and layout plan before commencing wood chipping operations, including identification of vehicle routes and pedestrian walkways • Implement traffic control measures such as spotters, delineation, speed limits and designated loading/unloading zones around the chipper • Mandate use of physical barriers (cones, bunting, temporary fencing) and warning signage to establish restricted and no-go zones for non-essential persons • Include in procedures a requirement to check for overhead and underground services, ground stability and gradients before positioning the chipper • Develop a neighbour and stakeholder communication protocol for high-impact works (noise, dust, truck movements) including agreed work hours and complaint management • Integrate site layout considerations into pre-start meetings and toolbox talks so that all workers understand exclusion zones and traffic flows | 2M |

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| | <ul style="list-style-type: none"> Noise and dust impacts on neighbouring properties leading to complaints and regulatory action | | <ul style="list-style-type: none"> Periodically audit site setups against the documented traffic management and exclusion zone requirements | |
| 3. Organisational Governance, WHS Responsibilities and Consultation | <ul style="list-style-type: none"> Unclear WHS roles and responsibilities relating to wood chipper ownership, operation and maintenance Lack of management oversight of plant safety leading to uncontrolled risk escalation Inadequate consultation with workers and Health and Safety Representatives on plant risks and control measures Poor integration of wood chipper risks into the organisation's WHS management system Failure to coordinate WHS responsibilities when multiple PCBUs share a worksite (e.g. contractors, principal contractors, local councils) | 3H | <ul style="list-style-type: none"> Define and document WHS roles, responsibilities and accountabilities for plant management, including wood chippers, within the WHS management system Assign a competent Plant Coordinator or similar role responsible for the plant register, risk assessments, maintenance systems and training records Establish formal consultation processes (e.g. WHS committees, toolbox meetings) to discuss wood chipping hazards, incidents and improvement actions with workers and HSRs Ensure contractual arrangements clearly articulate the WHS expectations, responsibilities and information sharing requirements between PCBU on shared worksites Integrate plant safety performance indicators (e.g. inspections completed, defects closed out, training currency) into management review and reporting Review and update wood chipper risk assessments whenever there are changes in equipment, work methods, locations or legislation Ensure directors and officers exercise due diligence in relation to plant risks under the WHS Act 2011 by seeking and using up-to-date WHS information on wood chipping operations | 1L |
| 4. Operator Competency, Training and Authorisation | <ul style="list-style-type: none"> Inadequate training in the specific make and model of wood chipper leading to unsafe use Lack of competency assessment and verification before allowing unauthorised operation Insufficient understanding of emergency procedures, isolation points and emergency stops No system to maintain training currency for infrequently used chippers Language, literacy or communication barriers resulting in misunderstanding of procedures and signage Use of labour hire or casual workers without appropriate induction and competency checks | 4A | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> | 2M |
| 5. Safe Operating Procedures and Work Method Systems | <ul style="list-style-type: none"> Absence of documented safe operating procedures (SOPs) for wood chipper use | 4A | <p>[REDACTED]</p> <p>[REDACTED]</p> | 2M |

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| | <ul style="list-style-type: none"> • Use of inconsistent or informal work methods across different crews and sites • Failure to incorporate manufacturer's operating limits and warnings into local procedures • Unsafe practices becoming normalised due to time pressure or productivity targets • Lack of clear rules for working near the in-feed chute, discharge areas and moving plant | | [REDACTED] | |
| 6. Maintenance, Inspection and Pre-Start Systems | <ul style="list-style-type: none"> • Inadequate preventative maintenance leading to mechanical failure, unplanned downtime and injury • Failure of guards, interlocks, knives, belts or hydraulic systems due to lack of inspection • Use of damaged or missing guards and safety devices because defects are not reported or rectified • Uncontrolled changes or repairs by unqualified personnel creating new hazards • Lack of documented maintenance history impacting the ability to identify patterns of failure | 4A | [REDACTED] | 2M |
| 7. Isolation, Lock-Out/Tag-Out and Jam Clearing Management | <ul style="list-style-type: none"> • Exposure to rotating cutters and moving parts during clearing of blockages or jams • Attempting to clear jams without isolating and verifying zero energy state • Uncontrolled release of stored energy in hydraulic, mechanical or electrical systems | 4A | [REDACTED] | 2M |

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| | <ul style="list-style-type: none"> Lack of standardised lock-out/tag-out (LOTO) procedure for maintenance and cleaning tasks Multiple workers working on plant without coordination of isolation controls | | [REDACTED] | |
| 8. Noise, Vibration, Dust and Environmental Exposure Controls | <ul style="list-style-type: none"> Chronic noise exposure from wood chippers contributing to hearing loss Hand-arm and whole-body vibration impacting operator health over time Airborne dust, wood chips and exhaust emissions affecting respiratory health and visibility Environmental contamination of fuel, oil or hydraulic fluids and spills Inadequate management of green waste piles leading to fire, pests or instability | | [REDACTED] | 1L |
| 9. Ergonomics, Manual Handling and Material Flow Management | <ul style="list-style-type: none"> Excessive manual handling of branches and logs resulting in musculoskeletal disorders Poorly designed workstations and feed heights causing awkward postures and repetitive strain | 3H | [REDACTED] | 1L |

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| | <ul style="list-style-type: none"> • Uncontrolled build-up of material around in-feed and discharge areas creating trip and access hazards • Manual repositioning of heavy chipper units without mechanical aids • Inadequate planning of material flow from felling or pruning to chipping and disposal | | [REDACTED] | |
| 10. Weather, Terrain and Remote/Isolated Work Management | <ul style="list-style-type: none"> • Operation of wood chippers on steep, uneven or unstable ground leading to plant instability or roll-over • Adverse weather conditions (rain, wind, heat, lightning) increasing risk of slips, trips, falls and plant control loss • Working in remote or isolated locations without reliable communication or emergency support • Heat stress and dehydration for operators working near running plant for prolonged periods • Blocked access routes for emergency services due to site layout or | 3H | [REDACTED] | 1L |
| 11. Roadside, Mobile and Traffic-Adjacent Operations | <ul style="list-style-type: none"> • Exposure of workers to live traffic when operating chippers near roads or in car parks • Inadequate traffic control measures leading to vehicle strikes on workers or plant • Poor coordination between chipper operations and truck movements during loading and unloading • Limited sight lines for motorists due to chipper positioning, stockpiles or service vehicles • Failure to comply with applicable road authority traffic control requirements | 4A | [REDACTED] | 2M |

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| | | | [REDACTED] | |
| 12. Contractor, Labour Hire and Subcontractor Management | <ul style="list-style-type: none"> • Use of contractors operating wood chippers without equivalent safety standards or procedures • Insufficient verification of contractor competency, training and licensing for chipping operations • Lack of coordination between principal contractor and subcontractors on plant interaction and exclusion zones • Inadequate information sharing about site-specific hazards, controls and emergency arrangements • Confusion regarding which PCBU controls maintenance, inspections and defect rectification of contractor-supplied plant | 3H | [REDACTED] | 1L |
| 13. Emergency Preparedness, First Aid and Incident Management | <ul style="list-style-type: none"> • Delayed response to serious injury due to inadequate emergency planning around wood chipping activities • Lack of site-specific emergency procedures for entanglement, amputation or crush injuries • Insufficient first aid resources or personnel with training relevant to high-risk plant incidents • Failure to report, investigate and learn from near misses and incidents involving chippers • Unclear communication protocols for contacting emergency services and directing them to remote or changing work locations | 3H | [REDACTED] | 1L |

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| 14. PPE Programs, Fit, Selection and Compliance Monitoring | <ul style="list-style-type: none"> • Inadequate or inappropriate personal protective equipment for noise, flying particles and manual handling risks • Failure to maintain PPE in serviceable condition leading to reduced protection • Inconsistent use of PPE due to poor supervision, comfort issues or unclear requirements • PPE not integrated with other controls, resulting in over-reliance on last line of defence • Lack of consideration for individual needs such as prescription eyewear, fit and compatibility with other equipment | 2M | [REDACTED] | 1L |
| 15. Documentation, Records and Continuous Improvement | <ul style="list-style-type: none"> • Loss or inaccuracy of records such as training, maintenance, inspections and incident reports for wood chipper operations • Failure to review and update risk assessments and procedures leading to outdated controls • Inability to demonstrate compliance with WHS Act 2011 duties during regulator inspections or investigations • Lack of structured learning from data trends, near misses and audit findings | 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 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.