

Motor Grader

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 Design Selection	<ul style="list-style-type: none"> • Selection of motor graders that are not fit for purpose or incompatible with site conditions (terrain, gradients, climate, material type) • Lack of compliance with Australian Standards, manufacturer specifications and WHS legislation at point of purchase or hire • Inadequate safety features (ROPS/FOPS, seat belts, emergency stops, reversing alarms, cameras, mirrors, access platforms and guarding) • No consideration of whole-of-life safety costs leading to purchase of low-cost, high-risk plant • Failure to obtain and control current operator manuals, service manuals and safety documentation • Imported plant without proper verification of design, guarding and electrical/engineering compliance 	High	<ul style="list-style-type: none"> • Implement a formal plant procurement procedure that requires WHS review and sign-off before purchase, lease or hire of any motor grader, referencing WHS Act 2011 and relevant WHS Regulations • Specify mandatory compliance with relevant Australian Standards (e.g. AS 5327, AS 4024 series for guarding, AS/NZS 3000 where applicable) and manufacturer safety requirements within purchase contracts and hire agreements • Require documented evidence from suppliers that motor graders are supplied with compliant ROPS/FOPS, seat belts, warning devices, compliant access systems (steps, handrails, non-slip surfaces), guarding and lock-out provision • Include WHS performance criteria in supplier selection (incident history, defect management systems, recall processes, ability to provide training and technical support) • Ensure all plant is supplied with up-to-date operator and service manuals, risk assessments and safe operating information and ensure and control these documents within the organisation's document management system • Undertake pre-purchase risk assessments for any new grader type or significantly modified plant, involving competent WHS and operational representatives • Prohibit use of non-verified imported plant by requiring independent engineering and electrical compliance assessments where Australian certification is not available • Implement a change management process for introduction of new grader models, including trial use, operator feedback and review of system impacts 	Medium
2. Governance, WHS Duties and Contractor Management	<ul style="list-style-type: none"> • Unclear allocation of WHS responsibilities between PCBU, senior management, supervisor, operator and maintenance personnel • Multiple PCBUs (principal contractor, plant hire company, subcontractors) failing to consult, cooperate and coordinate as required under WHS Act 2011 • Lack of formal contractor management systems for hired graders and operators • Inadequate monitoring of compliance with site rules, traffic management plans and safe work procedures • Commercial pressures (time, cost, production targets) overriding safety expectations and leading to unsafe decision-making 	High	<ul style="list-style-type: none"> • Develop and implement a WHS governance framework that clearly allocates and documents plant safety responsibilities in line with WHS Act 2011 (officer due diligence, PCBU duties, workers' responsibilities) • Establish written agreements and interface documents between PCBUs (host employer, plant supplier, contractors) that define who controls plant procurement, maintenance, training, supervision and incident response • Implement a formal contractor management system covering prequalification, review of safety systems, verification of licences and competencies, and ongoing performance monitoring for all motor grader suppliers and operators • Require contractors to provide grader-specific risk assessments, plant maintenance records and operator competency evidence and review these against site standards before mobilisation • Integrate motor grader activities into the site WHS management plan, traffic management plan and principal contractor's systems where applicable • Embed safety performance expectations in contracts (KPIs, reporting requirements, right to stop work, penalties for serious non-compliance) • Require regular WHS coordination meetings between all PCBUs where grader operations are discussed, risks are reviewed and actions tracked • Conduct periodic management reviews and audits of grader-related WHS performance, with findings reported to officers and used to improve governance controls 	Medium

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3. Operator Competency, Licensing and Training Systems	<ul style="list-style-type: none"> Operators using motor graders without adequate verification of competency, experience or fitness for duty Reliance on informal or on-the-job training with no structured program or assessment No process to ensure operators are trained on the specific make/model and control layout of each grader Lack of refresher training, especially following incidents, near misses, changes in work environment or introduction of new technology Insufficient training on WHS obligations, site rules, isolation/lock-out and emergency procedures Failure to manage language, literacy and numeracy (LLN) barriers leading to misunderstanding of controls and safety information 	High	<ul style="list-style-type: none"> Develop and implement a formal competency management system for grader operators, including role descriptions, required licences, VOC (verification of competency) and refresher intervals Require evidence of current and relevant competency (e.g. nationally recognised units of competency and documented VOC) before authorising operators to operate any grader Establish grader-specific training modules that address the particular model's controls, safety systems, limitations and emergency procedures, delivered by a competent trainer or OEM representative Implement a written authorisation system (e.g. operator approval matrix or 'ticket' system) that restricts use of graders to authorised and personnel only Provide structured induction covering WHS Act 2011 duties, site rules, fatigue management expectations, plant isolation and reporting procedures (hazards, defects, incidents, near misses) Schedule and document refresher training based on risk (e.g. every 2-3 years, or sooner after incidents, major changes or extended breaks from operating) Assess LLN needs and provide training and instructions in formats that accommodate workforce diversity (visual aids, translated materials, demonstrations, mentoring) Conduct periodic practical and theoretical assessments to confirm ongoing competence, with remediation plans where shortfalls are identified 	Medium
4. Policies, Procedures and Safe Systems of Work	<ul style="list-style-type: none"> Absence of documented policies and procedures covering motor grader operations, leading to inconsistent and unsafe practices Procedures that are overly generic, complex, outdated or not aligned with current plant and site conditions Workers unaware of or unable to access relevant WHS documentation and safe systems of work Failure to integrate grader safety into broader site systems (traffic management, isolation, excavation, fatigue management) Lack of systematic review and continuous improvement of grader-related procedures after changes, incidents or regulatory updates 	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

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			[REDACTED]	
5. Plant Registration, Documentation and Record Management	<ul style="list-style-type: none"> • Missing or incomplete records of ownership, modifications, inspections and maintenance history for graders • Failure to register plant or notify the regulator where required under WHS legislation • Lack of traceability for safety-critical components (ROPS, FOPS, braking systems) and associated certifications • Inability to demonstrate compliance to regulators, clients or auditors due to poor documentation • Loss of critical information during handover, hire or sale of graders 	Medium	[REDACTED]	Low
6. Maintenance, Inspection and Defect Management Systems	<ul style="list-style-type: none"> • Inadequate preventative maintenance leading to brake failure, steering failure, hydraulic failure or structural collapse • Uncontrolled defects and delayed repairs due to lack of an effective reporting and tagging system • Use of graders that are overdue for service or critical inspections • Maintenance activities carried out by unqualified personnel or without reference to OEM specifications • Lack of systematic pre-start and post-use inspection processes and records • Failure to manage safety risks associated with attachments, blades, rippers and ancillary equipment 	High	[REDACTED]	Medium

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			[REDACTED]	
7. Site Planning, Traffic Management and Journey Management	<ul style="list-style-type: none"> • Uncontrolled interaction between graders and light vehicles, pedestrians, other mobile plant and the public • Poorly planned haul routes, work zones and turning areas leading to collisions, rollovers or contact with structures and services • Operation of graders on unsuitable ground conditions (soft edges, steep batters, unstable fill, underground voids) • No formal journey management or task planning for remote or extended operations • Inadequate signage, demarcation and communication arrangements for shared work areas 		[REDACTED]	Medium
8. Change Management and Plant Modification Control	<ul style="list-style-type: none"> • Safety systems bypassed or compromised due to unapproved modifications, retrofits or repairs • Introduction of new grader models, technologies or attachments without adequate risk assessment and training • Software updates, telematics systems or control changes implemented without assessing WHS implications 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> Failure to consider cumulative impact of multiple small changes on grader safety Workers unaware of changes, resulting in incorrect operation or maintenance practices 		[REDACTED]	
9. Emergency Preparedness and Incident Management	<ul style="list-style-type: none"> Delayed or ineffective response to grader incidents such as rollovers, collisions, fires or medical emergencies Lack of clear procedures for rescue from cabs, work in restricted locations or hostile environments Failure to report, investigate or learn from grader-related incidents and near misses Inadequate emergency equipment and communication systems associated with grader operations Confusion about roles and responsibilities during emergencies involving multiple PCBUS 	High	[REDACTED]	Medium
10. Worker Consultation, Communication and Participation	<ul style="list-style-type: none"> Decisions about grader safety made without input from operators, maintenance personnel or health and safety representatives 	Medium	[REDACTED]	Low

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	<ul style="list-style-type: none"> Poor communication of changes to procedures, site conditions or plant configuration affecting graders Workers unwilling or unable to raise safety concerns about grader operations due to cultural or organisational barriers Lack of feedback loops resulting in unresolved or recurring grader safety issues 		[REDACTED]	
11. Fatigue, Health and Fitness for Work Management	<ul style="list-style-type: none"> Operators controlling graders while fatigued due to long shifts, overtime, night work or inadequate rest breaks Undiagnosed or unmanaged medical conditions, alcohol and other drugs (AOD) use, or impairment affecting safe operation Poor ergonomic design or adjustment of seating and controls contributing to musculoskeletal disorders and reduced alertness No system for assessing fitness for work before operating graders, particularly for high-risk or remote tasks 	High	[REDACTED]	Medium
12. Environmental and Site Conditions Management	<ul style="list-style-type: none"> Operation of graders in adverse weather (rain, fog, high winds, extreme heat) without adjusted controls, increasing risk of loss of control or visibility 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> Dust, noise and vibration exposures affecting both operators and nearby workers Insufficient assessment and control of ground stability, underground services and water accumulation in work areas Environmental non-compliance (run-off, noise complaints, vegetation damage) leading to regulatory or reputational impacts 		[REDACTED]	
13. Monitoring, Audit and Continuous Improvement	<ul style="list-style-type: none"> Deterioration of grader standards over time due to lack of monitoring and enforcement Non-compliance with procedures, training requirements and maintenance schedules going undetected Repeat incidents and near misses involving graders without systemic corrective actions Failure to keep WHS systems current with legislative, technological and industry best practice changes 	Medium	[REDACTED]	Low

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.