

Articulated Truck

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. Vehicle Procurement and Specification	<ul style="list-style-type: none"> Articulated hauler purchased without adequate safety features (e.g. ROPS/FOPS, reversing cameras, proximity detection, emergency steering and braking redundancy) Vehicle not compliant with Australian Standards, road rules or relevant codes of practice for mobile plant Incompatible specification for site conditions (gradient, underfoot conditions, haul distances, payload, climate) Lack of engineering validation for stability and load limits on proposed work sites No consideration of human factors (cab ergonomics, visibility, control layout, noise and vibration exposure) 	High	<ul style="list-style-type: none"> Establish a documented articulated hauler procurement procedure aligned with WHS Act 2011 and WHS Regulations, requiring formal WHS input and sign-off before purchase or hire Specify compliance with relevant Australian standards and guidance material (e.g. AS 5327 Mobile Plant, applicable ISO/SAE standards, Safe Work Australia mobile plant guidance, state mining or quarrying codes where relevant) Develop standard technical specifications for articulated hauler that mandate safety features such as ROPS/FOPS, seat belts with interlocks, emergency steering and braking systems, rollover and tip alarm systems, speed limiting, fire suppression where required and fail-safe braking Require independent engineering review of proposed models against site haul road design, gradients, turning radii, loading systems and typical payloads to ensure stability and braking performance Include visibility requirements (360° visibility study, mirrors, cameras, proximity detection, lighting) in procurement criteria with evidence from the supplier Include human factors and ergonomics criteria in tender evaluation (seat design, control layout, HVAC, noise and vibration limits, dust ingress control) Mandate supplier provision of compliant operator and maintenance manuals, safety bulletins, risk assessments, and OEM training materials at handover Use a pre-delivery inspection and commissioning checklist to verify all ordered safety systems and interlocks are fitted, functional and documented before the hauler is accepted onto site Include lifecycle cost and safety performance history of the model (incident statistics, recall notices, OEM alerts) as weighted criteria during procurement 	Medium
2. Governance, WHS Management and Legal Compliance	<ul style="list-style-type: none"> Lack of clear PCBU governance over articulated hauler operations across multiple sites or contractors WHS responsibilities for officers, managers, supervisors, operators and maintenance personnel not defined or communicated Failure to systematically identify, assess and control articulated hauler risks as required by WHS Act 2011 and WHS Regulations Insufficient consultation, cooperation and coordination with contractors, labour-hire providers and other PCBUs sharing the workplace Inadequate monitoring, audit and review of the articulated hauler safety management system 	High	<ul style="list-style-type: none"> Embed articulated hauler operations into the organisation's WHS management system, including a specific mobile plant / heavy vehicle safety standard endorsed by senior leadership Define and document WHS duties and accountabilities for officers, line managers, supervisors, operators, fitters and contractors in relation to articulated haulers, with position descriptions and KPIs Implement a formal risk management procedure (in line with WHS Regulations risk management requirements) that includes periodic high-level risk assessments for articulated haulers and change management reviews Establish a mobile plant safety committee or include articulated hauler safety as a standing agenda item in WHS committee meetings, with representation from operators, maintenance, engineering and management Implement documented consultation and coordination arrangements with all PCBUs using, hiring or maintaining articulated haulers on site, including shared rules and clear chain of responsibility Integrate articulated hauler risks into the organisation's WHS planning, objectives and reporting (e.g. inclusion in annual WHS plans, performance scorecards and management reviews) Schedule internal and external audits of articulated hauler WHS controls (policies, training, maintenance, traffic management) with corrective action tracking and verification 	Medium

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			<ul style="list-style-type: none"> Ensure officers exercise due diligence by reviewing articulated hauler risk reports, incident data and compliance audits, and by allocating sufficient resources to control high-risk issues Maintain a compliance register covering relevant WHS legislation, road transport legislation, quarrying/mining codes (if applicable) and applicable standards relating to articulated haulers 	
3. Site Selection, Design and Traffic Management Systems	<ul style="list-style-type: none"> Articulated hauler introduced to sites that are not designed or assessed for large mobile plant operation Inadequate traffic management plans leading to collision with light vehicles, pedestrians or other plant Poor haul road design, including excessive gradients, inadequate width, poor drainage and poor delineation, contributing to rollovers and loss of control Insufficient controls at interfaces with public roads or shared access ways Lack of systematic change management when haul routes, dumps or loading areas are modified 	High	<ul style="list-style-type: none"> Develop a site acceptance and assessment procedure for articulated haulers that requires an engineering review of haul routes, ramp gradients, bench design, stockpile layouts and turning areas before operation Implement a documented traffic management plan for each site using articulated haulers, aligned with relevant codes of practice for traffic management and mobile plant Design and maintain haul roads to appropriate standards (e.g. width, camber, gradient, drainage, surface quality) for articulated haulers taking into account braking distances and articulation characteristics Separate, as far as reasonably practicable, articulated hauler routes from light vehicle and pedestrian routes using physical barriers, dedicated roadways, exclusion zones and controlled crossings Implement engineering controls such as clearly marked one-way systems, designated passing bays, speed zone design, graded berms, edge protection and bunds on high risk sections Establish controls for interfaces with public roads, including controlled entry/exit points, signage, speed management, visibility improvements and compliance with road authority requirements Implement a formal change management process for any alteration to haul routes, dump locations, loading points, or site layout, including risk assessment, communication and update of plans Use standardised signage, road markings, lighting and delineators suitable for low-light and adverse weather conditions on articulated hauler routes Periodically audit actual traffic behaviour against the traffic management plan and correct non-compliance through supervision and system changes 	Medium
4. Driver and Operator Competency Management	<ul style="list-style-type: none"> Operators not competent in articulated hauler operation, particularly regarding articulation, load distribution, gradients and unstable ground No structured training, assessment or authorisation system for operators, including contractors and labour-hire drivers Inadequate understanding of site rules, traffic management plan and emergency procedures Insufficient supervision of new or high-risk operators 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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			[REDACTED]	
5. Fatigue, Hours of Work and Fitness for Duty Systems	<ul style="list-style-type: none"> Operator fatigue due to long shifts, night work, rotating rosters or excessive overtime, leading to impaired decision-making and slower reaction times Inadequate management of medical conditions, medications, or fitness for duty impacting safety Insufficient controls for alcohol and other drugs among operators and maintenance personnel Lack of systems to identify and manage fatigue-related risk factors such as monotonous haul cycles and remote operations 	High	[REDACTED]	Medium
6. Maintenance, Inspection and Defect Management Systems	<ul style="list-style-type: none"> Articulated hauler components (brakes, steering, articulation joint, tyres, suspension, ROPS/FOPS, hoist system) not maintained in safe condition 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> Lack of systematic scheduled maintenance and inspection based on OEM recommendations and site conditions Defect reporting and rectification processes unclear or not followed, leading to continued operation of unsafe vehicles Contractor maintenance providers not working to the PCBU's WHS standards 		<p>[REDACTED]</p>	
7. Contractor, Hire and Labour-Hire Management	<ul style="list-style-type: none"> Contractor or hire fleet articulated haulers introduced without verification of their safety features, maintenance status or suitability for the site Contract drivers not inducted into site-specific articulated hauler risks, traffic rules and emergency procedures Inconsistent WHS standards between PCBU and contractors leading to gaps in controls and misunderstandings over responsibilities Labour-hire operators deployed without adequate competency or verification of training records 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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			[REDACTED]	
8. Communication, Signalling and Technology Systems	<ul style="list-style-type: none"> Ineffective communication between articulated hauler operators, spotters, loaders and traffic controllers leading to collisions or near misses Reliance on informal radio protocols or hand signals without standardisation and training Inadequate use or management of technological aids such as two-way radios, GPS, proximity detection and collision avoidance systems Communication failures in blind areas of sites, including tunnels, cuttings and stockpiles 	Medium	[REDACTED]	Low
9. Emergency Preparedness and Incident Management	<ul style="list-style-type: none"> Inadequate planning for articulated hauler-related emergencies such as rollovers, collisions, fires, entrapment or spills Lack of capability and equipment to safely access and stabilise large articulated vehicles in an emergency 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> • Delayed emergency response due to poor location information, communication systems or unclear roles • Ineffective incident investigation leading to repeat articulated hauler incidents 		<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	
10. Change Management and Continuous Improvement	<ul style="list-style-type: none"> • Uncontrolled introduction of new articulated hauler models, automation features or operating practices without risk assessment • Changes to production targets, haul routes, roster patterns or loading systems increasing risk without corresponding review of controls • Failure to learn from articulated hauler incidents, near misses, OEM bulletins or industry alerts 	Medium	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Low

SAMPLE

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.