

Dangerous Goods Transport and Hazardous Freight

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. Governance, Legal Compliance & WHS Duty of Care	<ul style="list-style-type: none"> Lack of documented WHS governance structure for dangerous goods transport and hazardous freight Inadequate understanding of obligations under WHS Act 2011, WHS Regulations, ADG Code and Chain of Responsibility (CoR) laws No appointed competent person responsible for dangerous goods compliance Failure to integrate dangerous goods transport risks into the organisational WHS management system Insufficient monitoring of legislative changes and updates to relevant Australian Standards and Codes of Practice Poor consultation mechanisms with workers and Health and Safety Representatives (HSRs) regarding dangerous goods risks 	4A	<ul style="list-style-type: none"> Establish a WHS governance framework that explicitly includes dangerous goods transport and hazardous freight, defining roles, responsibilities and reporting lines Appoint a competent Dangerous Goods / Hazardous Freight Manager (or equivalent) with clear authority and accountability for compliance Develop and maintain a legal register covering WHS Act 2011, WHS Regulations, ADG Code, Heavy Vehicle National Law, Chain of Responsibility and relevant Australian Standards (e.g. AS 3833, AS 1940) Integrate dangerous goods transport risk management into the overarching WHS management system, including planning, objectives, risk registers and performance indicators Implement scheduled compliance reviews and audits to verify adherence to WHS legislation and the ADG Code, with correct action tracking Establish formal WHS consultation processes (toolbox talks, HSR meetings, safety committees) specifically including dangerous goods and hazardous freight topics Ensure policies explicitly articulate officers' due diligence duties and PCBU obligations in relation to dangerous goods and hazardous freight transport Provide governance and due diligence training for senior management on dangerous goods and Chain of Responsibility obligations 	3H
2. Dangerous Goods Classification, Identification & Labelling Systems	<ul style="list-style-type: none"> Incorrect or missing classification of dangerous goods and hazardous freight by supplier or consignator Inadequate verification processes for Safety Data Sheets (SDS) and classification information Failure to ensure correct UN numbers, proper shipping names, packing groups and hazard classes Inaccurate or missing labelling and placarding on packages, IBCs, pallets or vehicles Poor systems for screening incoming hazardous goods deliveries and outbound consignments for compliance Language or literacy barriers leading to misinterpretation of hazard information 	4A	<ul style="list-style-type: none"> Implement a documented dangerous goods verification procedure requiring confirmation of UN number, proper shipping name, class, sub-risk and packing group against current ADG Code Require valid, up-to-date SDS from suppliers and maintain an SDS register accessible to workers and emergency responders Implement a formal screening and acceptance procedure for all hazardous goods deliveries and outbound loads, including verification of classification and documentation prior to loading Adopt a documented labelling and placarding standard aligned with ADG Code requirements, including clear responsibility for application and verification Use checklists and digital workflows for consignors, loaders and schedulers to verify that all packages are correctly marked and labelled before dispatch Provide training and competency assessment for relevant staff on dangerous goods classes, UN numbers, packing groups, GHS vs ADG labelling, and typical misclassification risks Introduce a random audit program of inbound and outbound freight to identify mislabelled or non-compliant dangerous goods Use pictogram-based guidance and multilingual reference materials to support workers with low English literacy 	2M

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			[REDACTED]	
5. Vehicle Maintenance, Inspection & Pre-Start Systems	<ul style="list-style-type: none"> Inadequate preventative maintenance program for trucks, trailers and specialised dangerous goods equipment Failure to identify and repair defects affecting containment (e.g. valves, seals, tanks, doors) and ventilation systems No formal pre-start inspection processes for drivers, leading to missed safety-critical issues Breakdown or mechanical failure while carrying dangerous goods, increasing spill or collision risk Incomplete maintenance records compromising ability to demonstrate compliance and due diligence 	3H	[REDACTED]	2M
6. Driver & Worker Competency, Licensing & Training	<ul style="list-style-type: none"> Drivers or loaders operating without appropriate dangerous goods licensing or training Insufficient understanding of properties of dangerous goods, including ventilation needs and exposure risks Lack of competency in segregation, load restraint, and emergency response for hazardous freight Inadequate training in WHS obligations, Chain of Responsibility and fatigue management No formal verification of competency or refresher training schedule 	4A	[REDACTED]	2M

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7. Journey Management, Routing & Scheduling Systems	<ul style="list-style-type: none"> Poor journey planning leading to increased exposure to traffic, environmental and security risks Inadequate consideration of restricted routes, tunnels, residential areas or sensitive receptors for dangerous goods Unrealistic schedules promoting speeding, fatigue and shortcuts on safety procedures Lack of formal processes for remote or regional trips with limited emergency support Inadequate coordination during extreme weather, bushfire, flood or other emergency conditions 	3H	<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>	2M
8. Load Planning, Segregation & Containment Systems	<ul style="list-style-type: none"> Incompatible dangerous goods loaded together due to poor planning or lack of segregation rules Overloading or poor weight distribution compromising vehicle stability Inadequate containment of liquids or granular materials leading to leaks and contamination Lack of systematised load planning tools or checks for dangerous goods compatibility Failure to account for ventilation requirements when planning mixed loads (e.g. combining off-gassing goods with confined spaces) 	3H	<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>	2M
9. Ventilation, Atmospheric Monitoring & Exposure Control	<ul style="list-style-type: none"> Accumulation of flammable, toxic or asphyxiant vapours inside vehicle bodies or containers due to inadequate ventilation 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> Lack of clear system for ensuring ventilation is maintained when transporting off-gassing or volatile goods No monitoring of airborne contaminants during loading, unloading or when accessing enclosed freight spaces Workers opening container doors without controls, leading to sudden exposure to hazardous atmospheres Reliance on ad-hoc practices (e.g. 'cracking doors' while driving) instead of engineered and procedural controls 		[REDACTED]	
10. Documentation, Consignment Notes & Emergency Information Systems	<ul style="list-style-type: none"> Missing or incorrect transport documents for dangerous goods (e.g. shipping names, UN numbers, quantities, emergency contacts) Emergency information not readily available to drivers or first responders in the event of an incident Inadequate systems for control and updating of emergency response guides and SDS access Failure to ensure documents accompany the load and are secured in appropriate holders within vehicles Complex or inconsistent documentation processes across depots leading to errors 	3H	[REDACTED]	2M
11. Emergency Preparedness, Spill	<ul style="list-style-type: none"> Lack of coordinated emergency response plans for dangerous goods incidents, spills or vehicle crashes 	4A	[REDACTED]	2M

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Response & Incident Management	<ul style="list-style-type: none"> • Insufficient spill response capability (equipment, training, procedures) for the types and quantities of dangerous goods transported • Poor communication channels with emergency services and regulators during incidents • Inadequate post-incident investigation and corrective action processes, leading to repeat events • No system to ensure compatibility of spill kits and PPE with specific hazardous substances carried 		<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>	
12. Fatigue, Health Monitoring & Fitness for Work Systems	<ul style="list-style-type: none"> • Inadequate fatigue management systems for drivers transporting dangerous goods over long distance • Lack of processes to identify and manage impairment (e.g. stress, alcohol, medical conditions) in safety-critical roles • No health monitoring program for workers regularly exposed to hazardous substances or vapours • Failure to consider psychological risks (e.g. stress from high-consequence work) in WHS planning • Inconsistent application of fitness for work standards across depots and contractors 	3H	<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

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			[REDACTED]	
13. Contractor, Subcontractor & Third-Party Management	<ul style="list-style-type: none"> • Use of contractors or subcontractors who lack adequate dangerous goods systems and competencies • Poor clarity on allocation of WHS and dangerous goods responsibilities between parties in the supply chain • Inconsistent standards across third-party depots, cross-docks or last-mile providers handling hazardous freight • Inadequate oversight of third-party compliance with ADG Code, WHS legislation and company procedures 	3H	[REDACTED]	2M
14. Security, Access Control & High-Consequence Dangerous Goods	<ul style="list-style-type: none"> • Unauthorised access to dangerous goods vehicles, loads or storage areas • Theft, diversion or tampering of high-consequence dangerous goods (e.g. explosives, toxic gases, oxidisers) • Inadequate verification of customer, site and delivery details for hazardous consignments • Lack of systems to track and account for sensitive dangerous goods during transport and temporary storage 	3H	[REDACTED]	2M
15. Information, Communication & Consultation Systems	<ul style="list-style-type: none"> • Critical safety and dangerous goods information not reaching drivers, loaders or supervisors in a timely and understandable way • Lack of standardised communication protocols between schedulers, depots 	3H	[REDACTED]	2M

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	<p>and drivers about hazardous loads and special requirements (e.g. ventilation, segregation)</p> <ul style="list-style-type: none"> • Insufficient consultation with workers regarding practical issues and near misses related to hazardous freight • Language, literacy or cultural barriers creating misunderstanding of written procedures and signage 		<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	
16. Monitoring, Audit, Review & Continuous Improvement	<ul style="list-style-type: none"> • Failure to detect emerging dangerous goods risks due to lack of systematic monitoring • Infrequent or superficial audits of WHS and dangerous goods compliance • Poor analysis of incident, near miss and non-conformance data leading to repeated failures • No structured management review system performance and resource adequacy for dangerous goods transport 	3H	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	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.