

**Vacuum 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			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> 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.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	

  

Risk Rating & Required Action:	
<b>4A</b>	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.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	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, WHS Duties and PCBU Oversight	<ul style="list-style-type: none"> <li>Lack of clear allocation of WHS duties between PCBUs, principal contractor, client and subcontractors operating vacuum service trucks</li> <li>Inadequate WHS governance framework to monitor high-risk mobile plant operations and confined space/interface risks</li> <li>Failure to integrate vacuum truck risks into the organisation's WHS management system and risk register</li> <li>Insufficient consultation with workers, Health and Safety Representatives (HSRs) and other duty holders about vacuum truck risks and controls</li> <li>Poor change management when introducing new vacuum trucks, configurations or operating environments</li> <li>Failure to ensure compliance with WHS Act 2011, WHS Regulation and relevant Australian Standards (e.g. AS 4024, AS/NZS 6007 for hazardous areas where applicable)</li> </ul>	High	<ul style="list-style-type: none"> <li>Establish and document a WHS governance structure that specifically includes oversight of vacuum service truck operations as high-risk mobile plant with clear roles and responsibilities for officers, managers, supervisors and operators</li> <li>Maintain an organisation-wide risk register that includes system and management risks associated with vacuum trucks (e.g. traffic interface, pressure systems, hazardous atmospheres, waste handling, fatigue and contractor control), and review it at least annually or after incidents</li> <li>Develop and implement a documented Vacuum Truck WHS Management Plan aligned with the WHS Act 2011, including policy statements, risk management procedures and linkages to plant, confined space, hazardous areas and traffic management procedures</li> <li>Implement a formal consultation procedure that requires engagement with workers, HSRs, contractors and host employers when planning, reviewing or changing vacuum truck operations or equipment</li> <li>Apply structural change management process (e.g. Management of Change form and approval workflow) for new vacuum trucks, modifications, new clients/sites, new waste types or changes to operating parameters (pressure/vacuum limits, tank volume, hose lengths)</li> <li>Under take periodic WHS legal compliance audits that specifically test conformity with WHS Act 2011 duties for mobile plant, pressure equipment, hazardous chemicals and confined spaces relevant to vacuum truck work</li> <li>Ensure officers discharge due diligence obligations by reviewing reports on vacuum truck incidents, near misses, inspection outcomes and training compliance, and by allocating adequate resources to implement required controls</li> <li>Integrate contractor WHS requirements for vacuum truck operations into contracts, including expectations around competency, equipment standards, fatigue management, incident reporting and participation in site safety systems</li> </ul>	Medium
2. Procurement, Design and Engineering of Vacuum Service Trucks	<ul style="list-style-type: none"> <li>Selection of vacuum trucks that are not fit for purpose for intended waste types, pressures, volumes or operating environments (e.g. explosive atmospheres, corrosive liquids, sludge)</li> <li>Lack of verification that truck and pressure/vacuum components comply with relevant design and plant safety standards</li> <li>Insufficient engineering controls to prevent over-pressurisation, implosion, hose failure or uncontrolled release of contents</li> <li>Inadequate integration of safety-critical systems such as emergency stops, interlocks, guarding and fail-safe design</li> </ul>	High	<ul style="list-style-type: none"> <li>Implement a formal procurement specification for vacuum service trucks that defines operational requirements (waste types, pressures, flow rates, tank capacity, hazardous environment rating, road access conditions) and references relevant Australian Standards and codes of practice</li> <li>Require suppliers to provide documented evidence of design registration and compliance for pressure equipment and tanks where required under WHS Regulation, including design verification and certification by a competent person</li> <li>Specify engineering controls such as certified pressure relief valves, vacuum reliefs, burst discs where appropriate, over-fill protection, level indicators, and designed maximum operating pressures clearly displayed on the plant</li> <li>Ensure the truck build includes integrated emergency stop systems, interlocks to prevent operation when critical guards or access points are open, and fail-safe design of control systems in line with AS 4024 series principles</li> <li>Require ergonomic assessment of cab layout, control placement, visibility (mirrors, cameras, reversing aids), and information displays before acceptance of new trucks, with issues rectified by the supplier</li> </ul>	Medium

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
	<ul style="list-style-type: none"> <li>Poor cab and control layout affecting visibility, ergonomics and critical information display for operators</li> <li>Inadequate provision for safe access/egress, working at height, isolation points and maintenance access on truck and tank</li> <li>Failure to consider hazardous area classification and ignition source control where flammable or combustible atmospheres may be present</li> </ul>		<ul style="list-style-type: none"> <li>Include in the design safe access features such as fixed ladders, non-slip walkways, compliant handrails, anchor points and platforms for inspection/maintenance on the tank and associated equipment</li> <li>Where flammable or combustible atmospheres may be encountered, specify intrinsically safe or suitably rated components, bonding and earthing provisions, and compatibility with site hazardous area classification requirements</li> <li>Establish a pre-delivery inspection and commissioning process that verifies safety features, documentation (manuals, schematics, certificates) and conformity with organisational and regulatory requirements before trucks enter service</li> </ul>	
3. Fleet Management, Registration and Roadworthiness	<ul style="list-style-type: none"> <li>Operation of vacuum service trucks that are unregistered, unroadworthy or not compliant with heavy vehicle regulations</li> <li>Lack of a systematic approach to scheduled servicing, inspections and defect rectification for trucks, tanks and associated plant</li> <li>Use of non-approved modifications or accessories that compromise stability, braking or load distribution</li> <li>Inadequate record keeping of service history, inspection and repairs affecting ability to demonstrate due diligence and compliance</li> <li>Failure to incorporate manufacturer safety bulletins or recall notices in fleet maintenance plans</li> <li>Inconsistent standards between company-owned and contractor-supplied vacuum trucks operating on the same sites</li> </ul>	High	<ul style="list-style-type: none"> <li>Implement a fleet management system for trucks registration, insurance, roadworthy inspections, and heavy vehicle compliance status for all vacuum service trucks, including contractor vehicles where practicable</li> <li>Develop and enforce a preventive maintenance schedule for each vehicle based on manufacturer recommendations, operational hours, kilometres travelled and regulatory requirements, managed via a centralised maintenance system</li> <li>Establish a formal defect reporting and isolation procedure where any identified safety-critical defect leads to immediate tagging out of the vehicle until rectified and verified by a competent mechanic or technician</li> <li>Prohibit unauthorised modifications by requiring engineering approval and, where relevant, regulatory approval for any changes that may affect vehicle stability, braking, structure or pressure system performance</li> <li>Maintain detailed maintenance records including service reports, inspection checklists, certificates for pressure testing where applicable, and evidence of defect rectification, retained for inspection by regulators if required</li> <li>Subscribe to manufacturer and body-builder safety bulletin and recall systems, and integrate required actions into maintenance work orders with documented close-out</li> <li>Apply minimum safety and maintenance standards for contractor vacuum trucks through procurement and contractor management processes, and verify compliance through pre-qualification and periodic audits</li> <li>Periodically audit fleet management data to identify trends in defects, near misses or breakdowns that may indicate systemic issues with particular models, components or operating conditions</li> </ul>	Medium
4. Pressure System and Tank Integrity Management	<ul style="list-style-type: none"> <li>Structural failure of tanks, hoses or fittings due to corrosion, fatigue, over-pressurisation or vacuum conditions</li> <li>Absence of a documented inspection and testing regime for pressure/vacuum</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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
	<p>components in line with regulatory and manufacturer requirements</p> <ul style="list-style-type: none"> <li>• Use of incompatible materials leading to accelerated corrosion, chemical attack or static build-up</li> <li>• Lack of traceability for critical components such as relief valves, gauges and pressure boundary items</li> <li>• Inadequate isolation and lockout systems for maintenance or inspection of tanks and pressure components</li> <li>• Failure to identify and manage loss of containment risks at connections, valves and discharge points</li> </ul>		<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>	
5. Safety Management System, Procedures and Documentation	<ul style="list-style-type: none"> <li>• Lack of a coherent set of procedures and guidelines for vacuum service truck operations across different sites and clients</li> <li>• Outdated, inconsistent or overly complex documentation leading to non-compliance in the field</li> <li>• Failure to integrate vacuum truck risks with related procedures (confined space entry, hazardous chemicals, traffic management, isolation, emergency response)</li> <li>• Reliance on undocumented custom and practice rather than controlled procedures</li> <li>• Inadequate version control and communication of changes to procedures and forms</li> </ul>	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>	Medium

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
			[REDACTED]	
6. Competency, Licensing and Training of Operators and Supervisors	<ul style="list-style-type: none"> <li>• Operators driving or operating vacuum trucks without appropriate heavy vehicle licence, high-risk work licences (where applicable) or competency assessments</li> <li>• Supervisors lacking technical understanding of vacuum truck systems and associated hazards to adequately manage risk</li> <li>• Inadequate induction of new or labour-hire workers into company procedures and site-specific requirements</li> <li>• Training that focuses on practical operation only and not on hazard recognition, risk assessment or emergency response</li> <li>• No formal verification of competency or periodic refresher training for high-risk activities</li> </ul>	High	[REDACTED]	Medium
7. Journey Management, Scheduling and Fatigue Control	<ul style="list-style-type: none"> <li>• Excessive driving hours and inadequate rest breaks for vacuum truck drivers leading to fatigue-related incidents</li> <li>• Unrealistic job scheduling and time pressures resulting in speeding, shortcutting safety procedures or inadequate site assessments</li> </ul>	High	[REDACTED]	Medium

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
	<ul style="list-style-type: none"> <li>Inadequate journey planning for remote or unfamiliar sites including poor consideration of road conditions, weather and access constraints</li> <li>Lack of monitoring of driving hours, work hours and rest periods across multiple jobs or employers</li> <li>Insufficient contingency planning for breakdowns, delays or extended high-risk operations (e.g. night works, emergency call-outs)</li> </ul>		[REDACTED]	
8. Traffic, Site Access and Interface Management	<ul style="list-style-type: none"> <li>Poorly planned interaction between vacuum service trucks and other vehicles, plant or pedestrians on worksites and public roads</li> <li>Inadequate assessment of site constraints such as overhead services, underground services, ground bearing capacity, gradients and turning circles</li> <li>Lack of standardised traffic management arrangements for typical vacuum truck tasks at client sites</li> <li>Unclear responsibilities between principal contractor, client and vacuum truck operator regarding traffic control, exclusion zones and spotters</li> <li>Inconsistent use of reversing aids, cameras, proximity sensors and communication protocols</li> </ul>	High	[REDACTED]	Medium

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
			[REDACTED]	
9. Hazardous Substances, Waste Characterisation and Compatibility	<ul style="list-style-type: none"> <li>Inadequate identification and characterisation of liquids, sludges and other materials to be vacuumed, leading to exposure to unknown hazardous substances</li> <li>Chemical incompatibility between waste streams, tank residues and cleaning agents causing reactions, heat, gas generation or over-pressurisation</li> <li>Lack of systems to obtain and review Safety Data Sheets (SDS) or equivalent information from clients</li> <li>Poor labelling and documentation of collected waste during transport and disposal, leading to regulatory breach and increased risk to downstream handlers</li> <li>Insufficient assessment of hazardous atmosphere potential (flammable, toxic, oxygen-deficient) near hoses and discharge points</li> </ul>	High	[REDACTED]	Medium
10. Contractor and Client Interface Management	<ul style="list-style-type: none"> <li>Misalignment of safety expectations and procedures between the vacuum truck company, contractors and client organisations</li> <li>Assumptions that another party has control of hazards such as isolation, permits, confined spaces or traffic management without clear confirmation</li> <li>Inadequate pre-qualification, onboarding and monitoring of subcontracted vacuum truck operators or offsideers</li> </ul>	High	[REDACTED]	Medium

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
	<ul style="list-style-type: none"> <li>Poor communication of site-specific hazards, emergency procedures and permit requirements to vacuum truck crews</li> <li>Fragmented incident reporting and investigation where multiple PCBUs are involved</li> </ul>		[REDACTED]	
11. Pre-Start, Inspection and Monitoring Systems	<ul style="list-style-type: none"> <li>Failure to identify emerging defects in vehicles, tanks, hoses, safety systems and instrumentation before deployment to site</li> <li>Inconsistent or incomplete use of pre-start checks across the fleet or between shifts</li> <li>Lack of systematic recording and analysis of pre-start findings and trends</li> <li>Reliance on operator discretion without structured prompts for critical safety items</li> <li>No mechanism for management to verify that inspections are completed and defects are actioned</li> </ul>	Medium	[REDACTED]	Low
12. Emergency Preparedness, Spill and Incident Management	<ul style="list-style-type: none"> <li>Inadequate planning for emergencies such as spills, hose failures, vehicle rollovers, fires, medical events or exposure to hazardous substances</li> </ul>	High	[REDACTED]	Medium

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
	<ul style="list-style-type: none"> <li>Lack of appropriate emergency equipment on vacuum service trucks or at depots</li> <li>Poorly coordinated emergency response when multiple organisations and emergency services are involved</li> <li>Insufficient training and drills for operators and supervisors on emergency scenarios specific to vacuum trucks</li> <li>Inconsistent incident notification, recording, investigation and corrective action management</li> </ul>		<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	

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-of-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.