

**Water Tank Installation**

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 Consultation	<ul style="list-style-type: none"> <li>Lack of clearly defined WHS responsibilities for directors, officers and managers relating to water tank installation projects</li> <li>Inadequate due diligence by officers to ensure WHS risks associated with tank installation are identified, resourced and monitored in accordance with WHS Act 2011</li> <li>Poor consultation and communication with workers, contractors and Health and Safety Representatives (HSRs) about system-level risks and changes to installation practices</li> <li>No formal process for consultation, co-operation and co-ordination of activities with other PCBUs on shared sites (e.g. builders, plumbers, electricians, crane providers)</li> <li>Inadequate WHS policy framework specific to high-risk aspects of water tank installation (e.g. working near excavations, lifting operations in confined spaces in tanks)</li> <li>Inconsistent management review of WHS performance, incidents and audit findings related to water tank projects</li> </ul>	High	<ul style="list-style-type: none"> <li>Establish and maintain a WHS governance framework that assigns clear roles, responsibilities and accountabilities for all levels of management in relation to water tank installation activities</li> <li>Ensure officers demonstrate due diligence in accordance with WHS Act 2011 by regularly acquiring WHS knowledge relevant to water tank installation, understanding hazard profile, and verifying that appropriate resources and processes are in place</li> <li>Develop, implement and communicate a WHS policy that explicitly addresses tank installation risks, including working near excavations, plant and vehicle movement, excavation interfaces and hazardous atmospheres in tanks</li> <li>Implement a documented consultation procedure requiring regular toolbox talks, WHS committee meetings and structured engagement with HSRs focused on systemic risks and proposed changes to work methods</li> <li>Formalise arrangements with other PCBUs via documented interface agreements, site coordination plans or principal contractor arrangements clarifying responsibilities for site access, traffic management, lifting operations and emergency response</li> <li>Include WHS performance for water tank projects as a standing agenda item at management meetings, including review of leading indicators (inspections, training completion, corrective actions) and lagging indicators (incidents, near misses, non-conformances)</li> <li>Maintain a documented process for worker participation in the development, review and continuous improvement of tank installation procedures and safe systems of work</li> <li>Periodically audit compliance with consultation and governance requirements and implement corrective actions with defined timeframes and ownership</li> </ul>	Medium
2. Contractor and Supplier Management	<ul style="list-style-type: none"> <li>Engagement of contractors (builders, plumbers, electricians) without adequate WHS prequalification or verification of competency</li> <li>Inconsistent vetting of suppliers of tanks, fittings, ladders, access platforms and associated plant for compliance with relevant Australian Standards and WHS legislation</li> <li>Lack of clear contractual WHS requirements, including responsibilities under the WHS Act 2011 and WHS Regulations for principal contractor, PCBUs and subcontractors</li> </ul>	High	<ul style="list-style-type: none"> <li>Implement a formal contractor management procedure covering selection, prequalification, onboarding, monitoring and review for all parties involved in water tank installations</li> <li>Use a structured WHS prequalification process to verify contractors' licences, high-risk work licences, insurances, training records, SWMS, plant maintenance records and incident history</li> <li>Embed clear WHS obligations and performance expectations in contracts, including adherence to company procedures, SWMS, site rules, and cooperation with other PCBUs on site</li> <li>Require evidence that crane providers, transport companies and specialised installers comply with relevant Australian Standards and manufacturer requirements for lifting and installation of tanks</li> <li>Mandate that contractors submit and have approved SWMS or equivalent risk controls for high-risk construction work (e.g. work at height, work near trenches, use of cranes) before work starts</li> </ul>	Medium

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	<ul style="list-style-type: none"> <li>Poor control over subcontractor work methods, leading to unsafe lifting practices, inadequate traffic control, or non-compliant access and fall protection systems</li> <li>Inadequate processes for monitoring contractor performance, incident management and corrective actions across multiple installation projects</li> <li>Inconsistent induction of contractors to organisational WHS expectations, policies and risk controls specific to water tank installation</li> </ul>		<ul style="list-style-type: none"> <li>Provide a standard WHS induction package for all contractors that includes hazards unique to water tank installations (confined space potential, structural integrity of foundations, working near services) and organisational reporting expectations</li> <li>Implement a contractor performance review system incorporating WHS leading indicators (inspections, rectification timeframes, participation in consultation) and lagging indicators (incidents, non-compliance)</li> <li>Include contractor activities in regular WHS inspections and audits, with documented findings and enforced corrective actions</li> <li>Maintain an up-to-date approved contractor list based on WHS performance and remove or suspend contractors who do not meet minimum WHS standards</li> </ul>	
3. Design, Engineering and Procurement of Tanks and Systems	<ul style="list-style-type: none"> <li>Procurement of tank designs that do not meet relevant Australian Standards or are not structurally suitable for intended loads, location and foundation conditions</li> <li>Lack of engineering assessment for installation on elevated stands, roofs or platforms, increasing risk of structural failure or collapse</li> <li>Inadequate consideration of access, egress, fall protection and inspection requirements in tank and site layout design</li> <li>Failure to consider connection to existing building plumbing, gutters and stormwater infrastructure, leading to overflows, property damage and unsafe work at height</li> <li>Selection of tank materials incompatible with stored contents or environmental conditions, leading to premature degradation and failure</li> <li>Omission of built-in features for safe isolation, inspection, maintenance and confined space avoidance (e.g. adequate manholes, vents, drainage points)</li> <li>Insufficient design coordination with other trades (electrical, plumbing, civil</li> </ul>	High	<ul style="list-style-type: none"> <li>Adopt a formal engineering and design review process for all tank systems to ensure compliance with relevant Australian Standards, manufacturer requirements and WHS legislation</li> <li>Engage suitably qualified engineers to review and certify tank support structures, stands, concrete pads and load paths where tanks are elevated or located in non-standard positions</li> <li>Integrate WHS considerations into the design phase using a safety in design methodology, with documented risk assessments and design change records</li> <li>Specify procurement criteria that require suppliers to provide design certifications, load ratings, installation instructions and maintenance requirements for tanks and associated structures</li> <li>Ensure designs incorporate safe access and egress arrangements, including permanent ladders, guardrails, walkways, anchor points and appropriate fall protection systems where reasonably practicable</li> <li>Include provisions for isolation valves, safe sampling points, drainage, vents and overflows that minimise the need for confined space entry and reduce manual handling and fall risks</li> <li>Coordinate design interfaces with builders, plumbers and electricians to avoid clashes with underground services, overhead power lines and structural elements that could constrain safe installation</li> <li>Maintain documented approval workflows for design variations and ensure changes are reviewed by WHS and engineering representatives prior to implementation</li> <li>Standardise preferred tank models and support systems that have been assessed for WHS suitability and lifecycle safety performance</li> </ul>	Medium

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	works) resulting in conflicting services and unsafe installation constraints			
4. Site Selection, Planning and Layout	<ul style="list-style-type: none"> <li>Poor selection of tank location leading to proximity to overhead or underground services, traffic routes or unstable ground conditions</li> <li>Inadequate assessment of site access for delivery vehicles, cranes and installation teams, leading to unsafe reversing, congestion or unplanned lifting approaches</li> <li>Lack of planning for exclusion zones, pedestrian segregation and interface with other construction or operational activities</li> <li>Insufficient drainage and stormwater management planning, causing erosion, undercutting of foundations or slip hazards around tanks</li> <li>Failure to consider emergency access and egress routes, including fire appliance access and spill containment needs</li> <li>Inadequate assessment of environmental factors (slope, flooding risk, wind exposure) that can impact tank stability and safe access for inspection and maintenance</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
5. Plant, Equipment and Vehicle Management	<ul style="list-style-type: none"> <li>Use of unsuitable or poorly maintained lifting equipment, cranes, trucks or vehicles for transporting and installing tanks</li> <li>Lack of systematic inspection, maintenance and recording for slings, chains, spreader bars and lifting attachments used with tanks</li> <li>Insufficient controls for interaction between mobile plant and pedestrians during deliveries and installations</li> <li>Inadequate verification that plant is operated by competent, licensed and authorised personnel</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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	<ul style="list-style-type: none"> <li>Failure to ensure load ratings, wind limits and ground bearing capacities are respected during lifting operations</li> <li>Use of makeshift or non-engineered access equipment (e.g. ladders, platforms) during installation and inspection activities</li> </ul>		[REDACTED]	
6. Training, Competency and Supervision	<ul style="list-style-type: none"> <li>Workers and supervisors not adequately trained in system-level hazards related to water tank installations, including structural stability, lifting operations and potential confined spaces</li> <li>Reliance on informal, on-the-job instruction with no structured competency assessment or refresher training program</li> <li>Supervisors lacking skills to identify and manage WHS risks across multiple concurrent tank installations at complex sites</li> <li>Inadequate training for workers and contractors in organisational procedures, incident reporting and emergency response requirements</li> <li>No system to verify that training and licences are current and relevant to the specific tasks and environments encountered during installations</li> <li>Insufficient awareness of legal duties under WHS Act 2011 among managers, supervisors and workers</li> </ul>	High	[REDACTED]	Medium
7. Documentation, Procedures and Safe Systems of Work	<ul style="list-style-type: none"> <li>Absence of standardised procedures for planning and controlling water tank installation activities across different sites and conditions</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>• Outdated or inconsistent documentation leading to confusion about required controls for lifting, access, excavation interfaces and isolation</li> <li>• Over-reliance on generic SWMS or risk assessments that do not adequately account for specific tank types, locations or methods</li> <li>• Documentation not readily accessible to workers and contractors in the field, resulting in ad-hoc decision-making</li> <li>• Lack of version control and formal approval processes for WHS documents, creating uncertainty over which procedures apply</li> <li>• Insufficient integration between WHS documentation and other business systems such as procurement, scheduling and quality</li> </ul>		<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	
8. Risk Management, Change Management and Continuous Improvement	<ul style="list-style-type: none"> <li>• Inconsistent application of formal risk management processes to new tank products, installation methods or site conditions</li> <li>• Changes to designs, locations, construction sequences made without structured WHS impact assessment</li> <li>• Failure to capture lessons learned from incidents, near misses, customer complaints or quality issues related to tank installations</li> <li>• Limited use of data and trend analysis to identify recurring system-level weaknesses in planning, procurement or supervision</li> <li>• No clear process for workers and contractors to escalate emerging risks or propose system improvements</li> <li>• Risk assessments not integrated into business planning, budgeting and scheduling decisions</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

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			[REDACTED]	
9. Emergency Preparedness and Incident Management	<ul style="list-style-type: none"> <li>Lack of coordinated emergency plans for incidents during tank installation such as structural collapse, falls from height, crane failure, trench collapse or exposure to hazardous atmospheres</li> <li>Inadequate planning for water release, flooding or environmental contamination from tank failure or incorrect connection</li> <li>Workers and contractors not trained in site-specific emergency arrangements or unsure of roles and responsibilities</li> <li>Insufficient arrangements for first aid, rescue equipment and communication on remote or dispersed installation sites</li> <li>Poor incident notification, investigation and follow-up processes, leading to repeat events and regulatory non-compliance</li> </ul>	High	[REDACTED]	Medium
10. Monitoring, Inspection and Audit	<ul style="list-style-type: none"> <li>Absence of systematic inspections planning, documentation and control or management processes related to tank installations</li> <li>Over-focus on task-level observations without review of underlying system and management controls</li> <li>Inconsistent follow-up of identified non-conformances, leading to repeat issues across projects</li> <li>Insufficient verification that controls specified in risk assessments, SWMS and procedures are actually implemented on site</li> <li>Lack of independent or periodic external review of the WHS</li> </ul>	Medium	[REDACTED]	Low

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	management system for water tank installations		[REDACTED]	

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.