

Fuel Tank Repair Removal

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, WHS Duties and Regulatory Compliance	<ul style="list-style-type: none"> Lack of clear allocation of WHS due diligence responsibilities for directors and officers under WHS Act 2011 Inadequate identification of applicable legislation, Codes of Practice and Australian Standards for fuel tank systems, confined spaces, hazardous chemicals and hot work Absence of a documented WHS management system specific to fuel tank removal, repair and installation activities Failure to ensure PCBU and contractor obligations are coordinated on shared worksites Inadequate review of changes to legislation, standards or technical guidance relating to bulk fuel storage and confined space work 	High	<ul style="list-style-type: none"> Establish and maintain a documented WHS governance framework that clearly assigns WHS Act 2011 due diligence responsibilities to officers, including oversight of fuel tank repair, removal, maintenance and installation activities Develop and maintain a legislative and standards register covering confined spaces, hazardous chemicals, flammable liquids, atmospheric testing, hot work, electrical safety, pressure testing, environmental protection and dangerous goods transport requirements Implement a documented WHS management system (policies, procedures and forms) tailored to fuel tank operations, including bulk-manned entry maintenance, non-entry maintenance, rust treatment and installation Formalise PCBU-PCBU consultation, cooperation and coordination arrangements with clients, contractors and sub-contractors through written WHS agreements and interface documents Schedule periodic internal compliance audits and gap analyses against WHS Act 2011, WHS Regulation, relevant codes of practice (e.g. Confined Spaces, Hazardous Chemicals, Managing Risks of Plant) and applicable Australian Standards Ensure governance reporting to senior management includes leading and lagging indicators specific to fuel tank work (e.g. confined space entries, atmospheric non-compliances, near misses, integrity issues) Include WHS risk management for fuel tank systems in corporate risk registers and board-level WHS reviews 	Medium
2. Confined Space Entry and Permit-to-Work Management	<ul style="list-style-type: none"> Inadequate identification and formal classification of fuel tanks as confined spaces for bulk-manned entry maintenance Entry into tanks without compliant confined space entry permit system Poor control of simultaneous operations (e.g. hot work, welding, lifting) interacting with confined space work Insufficient supervision and permit authority competency for approving confined space work Failure to plan non-entry maintenance methods where reasonably practicable, leading to unnecessary manned entry 	High	<ul style="list-style-type: none"> Implement a confined space management procedure that formally defines and registers all fuel tanks used for bulk-manned entry as confined spaces, including unique IDs and access controls Introduce a permit-to-work system covering confined space entry, hot work, isolation, excavation and working at height with clear authorisation levels and validity periods Ensure confined space permits require documented risk assessment, atmospheric testing, isolation verification, rescue planning and communication arrangements prior to entry Establish competency and appointment criteria for permit issuers, standby personnel and confined space entrants, including verification of training currency and practical assessment Develop planning guidelines that require non-entry maintenance options (e.g. remote tools, robotic cleaning, chemical treatment) to be evaluated and documented as the preferred method where reasonably practicable Integrate simultaneous operations (SIMOPS) controls into the permit system, requiring coordination meetings, conflict resolution and permit suspension rules for interacting tasks Audit permit quality and compliance at regular intervals using structured checklists and corrective action tracking 	Medium
3. Hazard Identification, Risk Assessment and Change Management	<ul style="list-style-type: none"> Inconsistent or informal risk assessment for fuel tank repair, removal, rust treatment and installation activities 	High	<ul style="list-style-type: none"> Implement a standardised WHS risk management procedure requiring formal risk assessments for all fuel tank related projects, including bulk-manned entry and non-entry maintenance 	Medium

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	<ul style="list-style-type: none"> Failure to identify system-level risks associated with design changes, new fuels or changes to operating regime Inadequate management of change for modifications to tank design, coatings, entry methods or cleaning agents Risk assessments not considering whole-of-life issues such as decommissioning, integrity and environmental impacts 		<ul style="list-style-type: none"> Mandate use of structured risk assessment tools (e.g. bow-tie or risk matrix with defined criteria) for significant changes such as new tank designs, new products, coating systems, or cleaning technologies Introduce a management of change (MOC) process that requires review and approval of any proposed change to tank design, configuration, operating limits, access arrangements or maintenance strategy Require cross-functional participation (operations, engineering, WHS, environment, maintenance and contractors) in risk assessments for major fuel tank projects Ensure risk assessments explicitly consider ignition sources, vapour generation, confined space conditions, structural integrity, manual handling and environmental contamination pathways Maintain a central repository of risk assessments and MOC records accessible to project managers and supervisors, with version control and review dates. Integrate risk assessment findings into project plans, procurement specifications, training content and emergency plans 	
4. Design, Procurement and Installation of Fuel Tanks and Equipment	<ul style="list-style-type: none"> Procurement of fuel tanks, access systems, vents, fittings and coatings that are not compliant with relevant Australian Standards Tank design not adequately considering safe manned entry, non-entry maintenance and future removal or decommissioning Inadequate specification of access points, access hatches, fall protection and lifting points for tanks Use of incompatible rust treatments, linings or cleaning chemicals that create hazardous by-products or damage tank integrity 	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. Contractor Management and Competency	<ul style="list-style-type: none"> Engagement of contractors for fuel tank removal, repair, non-entry cleaning, rust treatment and installation without verifying competence Inadequate induction and communication of site-specific WHS requirements to contractors 	High	<p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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	<ul style="list-style-type: none"> Poor coordination between multiple contractors and the host PCBU, leading to unmanaged interface risks Reliance on informal assurances rather than documented verification of licences, training and high-risk work capabilities 		[REDACTED]	
6. Training, Competency and Information Management	<ul style="list-style-type: none"> Personnel undertaking fuel tank related activities without adequate knowledge of confined space, hazardous area and high work risks Training limited to general instructions without task-specific and system-specific content for fuel tanks No structured verification of competency for supervisors, permit issuers and tank entry team members Outdated or inaccessible procedures, risk assessments and Safety Data Sheets for fuels and treatment chemicals 	High	[REDACTED]	Medium
7. Isolation, De-Energisation and Fuel Handling Systems	<ul style="list-style-type: none"> Inadequate isolation of fuel lines, pumps, electrical systems and instrumentation prior to tank repair or removal 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> Residual fuel and vapour remaining in tanks due to poor decommissioning and cleaning planning Cross-contamination or unplanned transfer of fuel during removal or installation activities Unclear responsibilities for lock-out tag-out application, verification and hand-back between site and contractors 		[REDACTED]	
8. Atmospheric Monitoring, Ventilation and Hazardous Area Management	<ul style="list-style-type: none"> Inadequate atmospheric testing before and during tank work, especially for confined space entry and hot work Insufficient ventilation systems leading to accumulation of flammable vapour or toxic gases within tanks Poor control of ignition sources around tanks classified as hazardous areas Relying on uncalibrated or incorrectly used gas monitoring equipment 	High	[REDACTED]	Medium
9. Structural Integrity, Inspection and Maintenance Systems	<ul style="list-style-type: none"> Lack of systematic inspection and testing of fuel tank structural integrity, supports and associated infrastructure 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> • Unmanaged corrosion and rust leading to leaks, failures or unsafe conditions for entry and work • Inadequate assessment of tank condition before authorising bulk-manned entry or repair methods • Poor record-keeping of inspections, repairs, rust treatment history and coating performance 		[REDACTED]	
10. Planning and Project Management for Tank Removal and Installation	<ul style="list-style-type: none"> • Inadequate project planning for tank removal and installation leading to rushed decisions and unmanaged interface risks • Insufficient consideration of lifting operations, cranes, traffic interaction and site layout during planning stage • Poor sequencing of decontamination, cleaning, isolation, lifting and transport tasks at a systems level • Failure to incorporate environmental and community impact controls into project plans 	High	[REDACTED]	Medium
11. Emergency Preparedness, Rescue and Incident Management	<ul style="list-style-type: none"> • Lack of specific emergency and rescue planning for confined space entry into fuel tanks 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> Reliance solely on external emergency services without site-level rescue capability planning Incomplete consideration of fire, explosion, major spill and structural failure scenarios in emergency procedures Poor incident reporting, investigation and corrective action management for tank-related events 		[REDACTED]	
12. Documentation, Records and Continuous Improvement	<ul style="list-style-type: none"> Fragmented or missing records for permits, inspections, maintenance, training and incident related fuel tank work Inability to demonstrate compliance with WHS Act 2011 due to poor documentation practices Lack of structured review and improvement of WHS systems based on data and feedback Obsolete procedures and risk assessments remaining in circulation and being used in planning 	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.