

**Crane Workbox and Personnel Hoisting**

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.	Administrative 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, Legal Compliance & WHS Duty of Care	<ul style="list-style-type: none"> <li>Lack of clear organisational policy for crane workbox and personnel hoisting activities</li> <li>Incomplete understanding of duties under WHS Act 2011, WHS Regulation and relevant Australian Standards (e.g. AS 2550, AS 1418, AS 4024, AS/NZS 1891)</li> <li>No documented authorisation process for lifting persons using cranes, workboxes or man baskets</li> <li>Failure to recognise high-risk nature of personnel hoisting, especially over water or between vessels/structures</li> <li>Poor integration of crane personnel hoisting risks into the overall WHS management system</li> <li>Inadequate resourcing or funding for safe systems of work and critical controls</li> </ul>	4A	<ul style="list-style-type: none"> <li>Develop and implement a specific organisational policy for crane workbox, man basket and personnel hoisting that explicitly references duties under the WHS Act 2011, WHS Regulation and applicable Australian Standards</li> <li>Establish a formal approval and exemption process for personnel hoisting by crane, including justification that safer access methods (e.g. fixed access, EWV) are not reasonably practicable</li> <li>Incorporate crane-based personnel transfer and workbox use into the enterprise WHS management plan, risk register and corporate critical risk standards</li> <li>Require that only approved crane types, workboxes and associated lifting gear are used for personnel hoisting, with a clear register of authorised equipment</li> <li>Implement a governance framework that allocates WHS responsibilities and sign-off authority (e.g. PCB officer, site manager, engineering manager, HSR consultation)</li> <li>Undertake periodic independent WHS audits of crane personnel hoisting systems, with corrective action tracking and verification</li> <li>Ensure contracts and procurement documents for crane services explicitly mandate compliance with WHS legislation, Australian Standards and site-specific procedures for personnel lifts</li> <li>Provide officer-level WHS due diligence training that specifically covers high-risk work associated with crane workboxes and personnel transfers</li> </ul>	3H
2. Engineering Design, Suitability & Certification of Cranes and Workboxes	<ul style="list-style-type: none"> <li>Crane or derrick not designed, rated or configured for lifting personnel</li> <li>Workbox, man basket or personnel cage not designed to relevant standards or not fit for the specific task (e.g. over water, offshore, marine environment)</li> <li>Incompatible or uncertified lifting points, shackles, hooks or other personnel lifting</li> <li>Inadequate factor of safety or SWL/WLL ratings not clearly displayed or misunderstood</li> <li>Lack of structural verification or design registration for custom or modified workboxes</li> <li>Use of cranes with non-functioning safety devices (e.g. overload protection, anti-two-block, limit switches, emergency lowering systems)</li> </ul>	4A	<ul style="list-style-type: none"> <li>Specify that only cranes designed, rated and documented by the manufacturer as suitable for personnel hoisting are to be used, including all required safety devices</li> <li>Mandate that all workboxes, man baskets and personnel cages are purpose-designed, engineered and certified to the applicable Australian Standards, with manufacturer instructions available on site</li> <li>Maintain a register of all personnel lifting devices, including design certification, load ratings, engineering verification documents and inspection history</li> <li>Require third-party engineering review and sign-off for non-standard or site-specific workboxes, including any modifications to original design</li> <li>Ensure all personnel lifting equipment has clearly visible and durable identification plates showing WLL/SWL, maximum number of occupants and any operating limitations</li> <li>Standardise the use of positive locking hooks, correctly rated shackles, lifting chains or wire ropes specifically approved for personnel lifting applications</li> <li>Install and maintain compliant anchor points and fall arrest compatibility within workboxes, with engineering confirmation of capacity and layout</li> <li>Implement a system that immediately removes from service any crane or workbox where safety devices or structural elements are found to be defective, pending engineering assessment</li> </ul>	2M

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	<ul style="list-style-type: none"> <li>Inadequate anchorage arrangements for harnesses and fall arrest systems within the workbox</li> </ul>			
3. Procurement, Hiring & Contractor Management for Crane and Workbox Operations	<ul style="list-style-type: none"> <li>Engagement of crane suppliers or marine contractors without appropriate WHS systems and high-risk work competencies</li> <li>Lack of verification of third-party design certification, maintenance history and inspection records for cranes and personnel workboxes</li> <li>Commercial pressures leading to selection of lowest-cost suppliers with inadequate safety performance</li> <li>Poor definition of scope regarding personnel transfer over water and between vessels/structures</li> <li>Misalignment between site WHS standards and contractor procedures, especially for offshore or port environments</li> <li>Inadequate interface management between multiple PCBU's involved in crane and marine operations</li> </ul>	3H	<ul style="list-style-type: none"> <li>Develop a formal pre-qualification and selection process for crane and workbox suppliers that includes review of WHS management systems, incident history and high-risk work controls</li> <li>Require provision and verification of engineering certifications, inspection reports, maintenance records and operator licences as part of the procurement and mobilisation process</li> <li>Include clear contractual clauses requiring compliance with site-specific crane personnel hoisting procedures, marine safety rules and WHS legislation</li> <li>Mandate joint planning workshops or mobilisation meetings with all PCBU's involved (client, crane company, marine contractor, facility operator) to define roles, responsibilities and interface arrangements</li> <li>Implement a contractor performance monitoring system that includes leading indicators (e.g. pre-start compliance, permit quality) and lagging indicators (e.g. incidents, near misses) for personnel hoisting activities</li> <li>Require that any subcontracted marine or crane providers are subject to the same WHS selection criteria and monitoring as primary contractors</li> <li>Establish a clear escalation pathway for suspension of works where contractor WHS performance is not meeting agreed standards, with documented improvement plans</li> </ul>	2M
4. Competency, Licensing, Training & Verification of Personnel	<ul style="list-style-type: none"> <li>Crane operators, loggers and lifters lacking appropriate (CR or High Risk Work Licence) and experience with personnel hoisting and transfers over water</li> <li>Personnel unfamiliar with workbox emergency procedures, harness use and communication protocols</li> <li>No formal competency assessment for workbox occupants, spotters or lift supervisors</li> <li>Assumption that general crane experience is sufficient for complex marine personnel transfers</li> <li>Inadequate training in specific site conditions such as vessel movement, wind effects and dynamic loading</li> </ul>	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> <li>Fatigue, impairment or complacency affecting decision-making during critical lifts</li> </ul>		[REDACTED]	
5. Planning, Job Design & Risk Assessment for Personnel Hoisting Tasks	<ul style="list-style-type: none"> <li>Ad hoc or last-minute decision to use a crane man basket or workbox without adequate planning</li> <li>Failure to assess alternative access methods that may present a lower overall risk</li> <li>Incomplete task-specific risk assessments that do not consider environmental, marine and interface hazards</li> <li>Inadequate definition of safe working limits (wind speed, sea state, crane radius, load charts for personnel)</li> <li>Unclear criteria for when personnel lifts are to be postponed or cancelled</li> <li>Insufficient consideration of simultaneous operations (SIMOPS), including vessel movements, handling and nearby production activities</li> </ul>	4A	[REDACTED]	2M
6. Permit to Work, Authorisation & Change Management	<ul style="list-style-type: none"> <li>Personnel hoisting undertaken without a formal permit to work or lift authorisation</li> <li>Permit system not tailored to the specific risks of cage hoisting, man baskets and over-water transfers</li> <li>Uncontrolled changes to lift parameters (e.g. crane, rigging, location, time of day) after permit approval</li> <li>Poor linkage between permits for crane operations, marine activities, hot work and isolation</li> <li>Lack of verification that prerequisite controls (e.g. exclusion zones,</li> </ul>	3H	[REDACTED]	2M

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	emergency equipment, rescue teams) are in place before commencing work		[REDACTED]	
7. Equipment Inspection, Maintenance & Pre-Use Verification Systems	<ul style="list-style-type: none"> <li>• Failure or malfunction of cranes, workboxes, wire ropes, shackles or hooks due to poor maintenance</li> <li>• Undetected corrosion or fatigue cracking of lifting components, particularly in marine environments</li> <li>• Inadequate inspection frequency or scope for equipment used in personnel hoisting</li> <li>• Missing or incomplete maintenance records for critical equipment</li> <li>• Pre-use checks not performed or performed superficially due to time pressure or poor system</li> <li>• Use of equipment beyond inspection due date or with unknown service history</li> </ul>		[REDACTED]	2M
8. Work Area Layout, Exclusion Zones & Traffic/Marine Interface Management	<ul style="list-style-type: none"> <li>• Personnel struck by moving crane, suspended load or workbox due to inadequate exclusion zones</li> <li>• Collision between workbox and fixed structures, vessels or cargo due to poor layout or vessel movement</li> <li>• Uncontrolled interaction between crane operations and other vehicle, forklift or vessel traffic</li> </ul>	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>Falling objects from workbox impacting people or assets below, including vessels alongside</li> <li>Workbox or cage swung over unprotected persons, public areas or operational process plant</li> </ul>		[REDACTED]	
9. Environmental and Marine Conditions Management (Weather, Sea State, Visibility)	<ul style="list-style-type: none"> <li>Adverse weather (high winds, lightning, heavy rain) causing loss of control of the workbox or crane</li> <li>Sea state and vessel motion resulting in dynamic loads, collisions or uncontrolled swing of the workbox</li> <li>Poor visibility (darkness, fog, glare) impairing operator and spotter ability to control the lift</li> <li>Rapid deterioration of environmental conditions during extended operations</li> <li>Inadequate meteorological and marine forecasts informing lift planning</li> </ul>	4	[REDACTED]	2M
10. Communication, Coordination & Supervision of Lifting Operations	<ul style="list-style-type: none"> <li>Miscommunication between crane operator, dogger, workbox occupants, vessel master and lift supervisor</li> <li>Lack of clear leadership and authority during complex or multi-asset personnel transfers</li> <li>Inadequate communication equipment (e.g. radios not intrinsically safe, poor reception, no backups)</li> <li>No agreed emergency and stop-work signals understood by all personnel</li> </ul>	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>Insufficient supervision of inexperienced personnel or non-routine lifts</li> </ul>		[REDACTED]	
11. Emergency Response, Rescue Planning & Over-Water Survival	<ul style="list-style-type: none"> <li>Delayed or ineffective rescue if a workbox becomes stuck, collides with structures or is partially submerged</li> <li>Persons falling from workbox into water, leading to drowning, hypothermia or impact with vessel</li> <li>Failure of primary crane, vessel or moorings during personnel transfer over water</li> <li>Lack of suitable rescue equipment and trained responders for over-water or height rescues</li> <li>Inadequate medical response capacity for traumatic injuries or immersion incidents</li> </ul>		[REDACTED]	2M
12. Health, Human Factors & Psychosocial Considerations	<ul style="list-style-type: none"> <li>Worker fatigue, stress or anxiety affecting performance during high-risk personnel lifts</li> <li>Medical conditions (e.g. vertigo, cardiac issues) not identified prior to participation in workbox activities at height or over water</li> <li>Psychological distress or panic among personnel uncomfortable with crane-based transfers</li> </ul>	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>Exposure to heat, cold, noise or vibration in workbox affecting concentration and physical capacity</li> <li>Inadequate consideration of language barriers and cultural factors in safety communication</li> </ul>		[REDACTED]	
13. Documentation, Records, Data Management & Continuous Improvement	<ul style="list-style-type: none"> <li>Loss or inaccessibility of critical records such as certifications, permits, risk assessments and lift plans</li> <li>Inconsistent documentation leading to confusion about current procedures and safe operating limits</li> <li>Under-reporting of near misses and unsafe conditions in crane personnel hoisting activities</li> <li>Failure to learn from incidents on other sites or within the industry</li> <li>Use of outdated documents that do not reflect current legislation or best practice</li> </ul>	3H	[REDACTED]	1L
14. Auditing, Monitoring & Assurance of Critical Controls	<ul style="list-style-type: none"> <li>Critical controls for crane work and personnel hoisting not functioning as intended in the field</li> <li>Over-reliance on paperwork without verification of actual work practices</li> <li>Lack of clear performance indicators for safe crane personnel transfers, including over water</li> <li>Audit findings not addressed in a timely or effective manner</li> <li>Complacency developing over time as high-risk tasks become routine</li> </ul>	3H	[REDACTED]	1L

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			[REDACTED]	
			[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.