

Launching Pigging Operations Risk Assessment

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:								Notes on Hierarchy of Controls:	
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.						Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H		Review and approve additional controls before task starts. Senior supervisor sign-off needed.						1. Eliminate	
2M		Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.						2. Substitute	
1L		Proceed, following standard operating procedures. Monitor and keep records.						3. Isolate	
Consequence Scale:								4. Engineering	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation		5. Administrative		
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution		6. PPE		
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage		Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.		
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment		aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.		
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				

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. Preparation	Slip on wet surfaces, Trip over equipment	3H	<ul style="list-style-type: none"> - Conduct pre-task briefing - Keep work area tidy - Use non-slip mats in wet areas - Ensure adequate lighting - Train workers in hazard identification - Wear appropriate footwear - Signpost slippery areas - Use barriers to isolate hazards - Carry out regular inspections - Report any spills immediately 	2M
2. Equipment Inspection	Faulty equipment, Incorrect pressure readings	3H	<ul style="list-style-type: none"> - Regular equipment maintenance - Train operators on equipment use - Calibrate gauges before use - Inspect pressure release valves - Use equipment only within rated capacities - Monitor equipment during use - Isolate faulty equipment immediately - Keep inspection logs - Use protective covers - Have emergency repair kit available 	2M
3. Setting Up	Incorrect setup, Contact with moving parts	4A	<ul style="list-style-type: none"> - Follow setup SOPs - Use lockout/tagout procedures - Verify equipment settings - Ensure all guards are in place - Train staff on setup processes - Check workspace for obstacles - Isolate energy sources - Perform functional test before operations 	2M

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			<ul style="list-style-type: none"> - Use personnel barricades - Communicate setup status to team 	
4. Loading Pigs	Manual handling injuries, Exposure to chemicals	3H	<ul style="list-style-type: none"> - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] 	2M
5. Launching Pigs	High pressure release, Equipment failure	4A	<ul style="list-style-type: none"> - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] 	2M
6. Monitoring Operations	High noise levels, Incorrect telemetry data	3H	<ul style="list-style-type: none"> - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] 	1L

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7. Navigating Obstructions	Pig stuck in pipeline, Unexpected pressure spike	4A		2M
8. Completing Operations	Residual pressure, Incomplete release of materials	4A		2M
9. Equipment Cleaning	Chemical exposure, Slip hazards from cleaning fluids	3H		2M

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			<div></div> <div></div> <div></div> <div></div>	
10. Record Keeping	Data entry errors, Insufficient record management	2M	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	1L
11. Debriefing	Communication breakdown, Incomplete hazard identification	2M	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	1L
12. Maintenance Scheduling	Equipment not serviced on time, Overlooked faulty parts	3H	<div></div> <div></div> <div></div> <div></div> <div></div>	2M

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13. Stakeholder Engagement	Lack of stakeholder cooperation, Miscommunication of objectives	2M		1L
14. Training and Development	Skill gaps, Inadequate training programs	3H		1L
15. Emergency Preparedness	Uncontrolled incidents, Ineffective response	4A		2M

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			<div>1. Implement a comprehensive safety training program for all personnel involved in the maintenance work, ensuring they understand the risks and proper procedures.</div> <div>2. Establish a strict permit-to-work system that requires authorization from a qualified supervisor before any maintenance activities begin.</div> <div>3. Conduct a detailed risk assessment for each task, identifying potential hazards and implementing control measures to mitigate them.</div> <div>4. Ensure all workers are properly equipped with personal protective equipment (PPE) and trained in its use.</div> <div>5. Implement a clear communication protocol, including the use of standardized signals and hand gestures, to ensure all team members are aware of ongoing activities.</div> <div>6. Establish a safe work area by using barriers, warning signs, and safety tape to restrict access to the maintenance zone.</div> <div>7. Perform regular safety audits and inspections to ensure compliance with established protocols and identify areas for improvement.</div> <div>8. Develop and maintain up-to-date emergency response plans and procedures, including first aid and fire safety protocols.</div> <div>9. Implement a system for reporting and investigating incidents, near misses, and safety concerns to prevent recurrence.</div> <div>10. Foster a strong safety culture by encouraging open communication, active participation in safety initiatives, and a commitment to continuous improvement.</div>	
16. Reviewing and Improving	Stagnant safety protocols, Outdated risk assessments	3H	<div>1. Conduct a thorough review of existing safety protocols and procedures, identifying areas that are outdated or ineffective.</div> <div>2. Engage a cross-section of workers and safety experts to provide input and feedback on the current safety measures.</div> <div>3. Update risk assessments to reflect changes in equipment, materials, and work conditions, ensuring they accurately identify potential hazards.</div> <div>4. Develop and implement revised safety protocols that incorporate the latest industry best practices and lessons learned from incidents.</div> <div>5. Provide targeted training to workers on the updated safety protocols and procedures, ensuring they understand the changes and their importance.</div> <div>6. Establish a system for regular review and updates to safety protocols, ensuring they remain relevant and effective over time.</div> <div>7. Implement a process for soliciting and acting on worker feedback to continuously improve safety measures.</div> <div>8. Conduct regular safety audits and inspections to monitor the effectiveness of the revised protocols and identify areas for further improvement.</div> <div>9. Develop and maintain a comprehensive record of safety incidents, near misses, and the actions taken to address them.</div> <div>10. Foster a culture of continuous improvement by encouraging workers to identify safety concerns and suggest improvements.</div>	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 IF 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 2017

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) Regulations 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>

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

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>

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.