

Drilling On Pressurised Pipes 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 the 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 | | <i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i> | | |
| 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 | Inadequate site inspection, Lack of correct permits | 3H | <ul style="list-style-type: none"> - Conduct a thorough site inspection before commencement - Obtain all necessary permits and approvals - Verify the alignment of safety plans with the site conditions - Ensure all team members are aware of the potential hazards - Conduct a pre-work safety briefing - Identify and mark out safe zones - Review emergency procedures - Conduct environmental impact assessment - Verify communication systems are in place - Ensure availability of first aid equipment | 2M |
| 2. Equipment Check | Faulty equipment, Improper maintenance | 3H | <ul style="list-style-type: none"> - Conduct pre-use inspections of all equipment - Verify equipment is tagged and maintained - Repair damaged or faulty equipment immediately - Verify the calibration of pressure gauges - Ensure appropriate tools are available - Have qualified personnel conduct inspections - Keep a log of inspection results - Follow manufacturer's instructions for use - Ensure all equipment is compatible for the task - Use equipment only for its intended purpose | 1L |
| 3. Site Access | Unauthorised personnel, Obstructions | 3H | <ul style="list-style-type: none"> - Control site entry points with security or sign-in systems - Display clear signage indicating authorised areas - Designate safe entry and exit points - Use barriers to delineate work zones - Conduct regular checks of access routes - Restrict non-essential personnel from site - Ensure clear communication of site access rules - Collaborate with security for tight access control | 2M |

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| | | | <ul style="list-style-type: none"> - Keep access routes free from obstructions - Remove any trip hazards identified | |
| 4. Safety Gear | Incorrect PPE, Inadequate protection | 3H | <ul style="list-style-type: none"> - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] | 2M |
| 5. Drilling Equipment Setup | Incorrect assembly, Unstable setup | 4A | <ul style="list-style-type: none"> - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] | 2M |
| 6. Communication Systems | Poor communication, Misinterpretation of signals | 3H | <ul style="list-style-type: none"> - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] - [REDACTED] | 2M |

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| | | | | |
| 7. Pressure Monitoring | Overpressure, Leaks | 4A | | 2M |
| 8. Initial Drilling | Material blowout, Equipment jammin | 4A | | 2M |
| 9. Secure Environment | Unauthorised access, Interference by weather | 3H | | 1L |

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| | | | | |
| 10. Emergency Preparedness | Poor emergency response, Delay in evacuation | 4A | | 2M |
| 11. Pipe Integrity Check | Cracks in pipes, Erosion | 4A | | 2M |
| 12. Commence Drilling | Flying debris, Noise pollution | 4A | | 2M |

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| | | | | |
| 13. Monitor Drill Progress | Drill overheating, Misalignment | 3H | | 1L |
| 14. Completion of Drilling | Residual pressure, Unsealed openings | 3H | | 1L |
| 15. Post-Operation Cleanup | Chemical spills, Trip hazards | 3H | | 1L |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
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| | | | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | |
| 16. Feedback and Review | Incomplete reporting, Missed learnings | 2M | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | 1L |
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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>

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>

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>

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.

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>

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>

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