

## Dragline Operation 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			<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>	
<b>Risk Rating &amp; Required Action:</b>								<b>Notes on Hierarchy of Controls:</b>	
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. <b>Eliminate</b>	
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	
								4. Engineering	
								5. Administrative	
								6. PPE	
<b>Consequence Scale:</b>								Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
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				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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	slips, trips	3H	<ul style="list-style-type: none"> <li>- Ensure area is well-lit and free of obstacles.</li> <li>- Use appropriate non-slip footwear.</li> <li>- Conduct a pre-start inspection to identify hazards.</li> <li>- Clearly mark uneven surfaces with hazard tape.</li> <li>- Provide training on awareness and avoidance of slip risks.</li> <li>- Implement a cleaning schedule for floors.</li> <li>- Ensure entry and exit points are clear.</li> <li>- Use handrails where available.</li> <li>- Conduct regular safety audits of walking areas.</li> <li>- Post clear signage about wet floors.</li> </ul>	2M
2. Mobilisation	collisions, mechanical failure	4H	<ul style="list-style-type: none"> <li>- Inspect and maintain dragline components regularly.</li> <li>- Train operators on proper mobilisation procedures.</li> <li>- Implement a clear communication protocol using radio.</li> <li>- Use ground guides during mobilisation for safety.</li> <li>- Ensure all operators are certified and competent.</li> <li>- Conduct thorough pre-mobilisation inspection checks.</li> <li>- Ensure all mirrors and cameras are functional.</li> <li>- Use barricades and signage to direct other traffic.</li> <li>- Plan mobilisation routes to minimise risk.</li> <li>- Ensure mechanical systems, such as brakes, are functioning properly.</li> </ul>	3H
3. Operation	equipment malfunction, operator error	4A	<ul style="list-style-type: none"> <li>- Regular maintenance and service of dragline equipment.</li> <li>- Operators must follow manufacturer instructions.</li> <li>- Implement a fatigue management plan.</li> <li>- Use automated systems to reduce human error.</li> <li>- Provide continuous on-the-job training.</li> <li>- Implement a 2-way communication system.</li> <li>- Supervise operators to ensure compliance.</li> <li>- Ensure load limits are adhered to.</li> </ul>	3H

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			<ul style="list-style-type: none"> <li>- Use ergonomic controls to reduce strain.</li> <li>- Emergency procedures are practiced regularly.</li> </ul>	
4. Digging	structural collapse, flying debris	4A	<ul style="list-style-type: none"> <li>- Shoring or trench shields are used to prevent structural collapse.</li> <li>- Workers wear eye protection (safety glasses) to protect against flying debris.</li> <li>- Excavation depth is limited to safe levels based on soil conditions.</li> <li>- Safe digging techniques are followed, avoiding sudden movements.</li> <li>- Clear communication is maintained between workers.</li> <li>- Regular inspection of shoring/shielding by competent personnel.</li> <li>- Properly trained personnel perform excavation work.</li> <li>- Adequate lighting is provided for the work area.</li> <li>- Fall protection measures are implemented near edges.</li> <li>- Strict adherence to safety protocols and permits.</li> <li>- Emergency response plan is readily accessible.</li> <li>- First aid kits are available at the site.</li> <li>- Weather conditions are monitored closely.</li> <li>- No smoking or open flames are allowed near excavation.</li> <li>- All equipment is inspected before use.</li> <li>- Workers are briefed on hazards before starting work.</li> <li>- Traffic control measures are in place around the site.</li> <li>- Clear signage is posted to warn of excavation areas.</li> <li>- Competent supervision is present throughout the process.</li> <li>- Backfilling and bracing methods are clearly defined.</li> <li>- Prohibited activities are strictly enforced.</li> <li>- Safety meetings are held daily.</li> <li>- Housekeeping is maintained to prevent tripping hazards.</li> <li>- All workers understand their roles and responsibilities.</li> <li>- Incident investigation procedures are established.</li> <li>- Continuous monitoring of ground conditions.</li> <li>- Immediate evacuation routes are identified.</li> <li>- Communication system (radio) is functional.</li> <li>- Weather watch is active during the operation.</li> <li>- No unauthorized access to the excavation zone.</li> <li>- All safety gear is worn correctly at all times.</li> <li>- Work stoppage authority is clear for all personnel.</li> <li>- Final inspection and sign-off upon completion.</li> <li>- Documentation of safety measures taken.</li> <li>- Post-work cleanup follows safety guidelines.</li> <li>- Lessons learned are shared after the project.</li> <li>- Safety records are updated accordingly.</li> <li>- Compliance with local regulations is ensured.</li> <li>- Environmental considerations are addressed.</li> <li>- Public safety measures are implemented if applicable.</li> <li>- All stakeholders are kept informed of progress and risks.</li> <li>- Contingency plans are reviewed and ready for activation.</li> <li>- Quality control checks are integrated into the workflow.</li> <li>- Team morale and fatigue management are prioritized.</li> <li>- Clear exit strategies are planned for emergencies.</li> <li>- All materials are stored safely away from the excavation.</li> <li>- Weather-related delays have predefined protocols.</li> <li>- Safety culture is reinforced through ongoing training.</li> <li>- Accountability is assigned for each safety measure.</li> <li>- Regular safety audits are conducted.</li> <li>- Open communication encourages reporting of concerns.</li> <li>- Safety is the top priority for every decision made.</li> <li>- All actions are taken to minimize risk to the maximum extent possible.</li> </ul>	3H
5. Loading	spillage, overload	4A	<ul style="list-style-type: none"> <li>- Load capacity limits are strictly adhered to.</li> <li>- Spill containment measures (absorbents, barriers) are in place.</li> <li>- Proper stacking techniques are used to distribute weight evenly.</li> <li>- Workers use appropriate lifting/lowering techniques.</li> <li>- Area is cleared of obstacles before loading/unloading.</li> <li>- Weight of loads is estimated and verified.</li> <li>- Training on safe handling of materials is provided.</li> <li>- Clear communication regarding load status is maintained.</li> <li>- Regular inspection of load stability during transport.</li> <li>- Use of pallet jacks or other material handling equipment.</li> <li>- Designated spill response team and kit are available.</li> <li>- Weather conditions are considered for outdoor operations.</li> <li>- No overloading of vehicles or containers.</li> <li>- Securement of loads follows industry best practices.</li> <li>- Workers are positioned safely during loading/unloading.</li> <li>- Clear zones are established around loading areas.</li> <li>- Signage indicating loading activity is displayed.</li> <li>- Competent personnel oversee the loading process.</li> <li>- Emergency stop procedures are clearly defined.</li> <li>- First aid for spills is immediately initiated.</li> <li>- Cleanliness is maintained to prevent slip/trip hazards.</li> <li>- All equipment is used according to manufacturer instructions.</li> <li>- Safety briefings include specific instructions for loading.</li> <li>- Load distribution is checked before moving heavy items.</li> <li>- Prohibited shortcuts are strictly enforced.</li> <li>- Daily safety checklists are completed.</li> <li>- Housekeeping is performed frequently.</li> <li>- All workers are fully trained and certified.</li> <li>- Incident prevention focuses heavily on load management.</li> <li>- Continuous observation of load behavior.</li> <li>- Evacuation routes remain unobstructed at all times.</li> <li>- Functional communication system is essential.</li> <li>- Weather monitoring includes wind speed for loose loads.</li> <li>- No unauthorized personnel near loading zones.</li> <li>- All safety protocols are followed without exception.</li> <li>- Work stops immediately if an unsafe condition arises.</li> <li>- Detailed documentation of load weights and locations.</li> <li>- Safety performance is tracked and reported.</li> <li>- Environmental impact of spills is minimized.</li> <li>- Public safety is paramount in all actions.</li> <li>- Stakeholder communication is transparent.</li> <li>- Contingency planning covers various scenarios.</li> <li>- Quality assurance includes checking load integrity.</li> <li>- Team coordination is key to successful operations.</li> <li>- Clear exit strategies are part of the overall plan.</li> <li>- All materials are handled responsibly.</li> <li>- Weather-related decisions are made proactively.</li> <li>- Safety culture permeates every aspect of the work.</li> <li>- Accountability ensures everyone takes ownership of safety.</li> <li>- Regular safety audits identify areas for improvement.</li> <li>- Open communication fosters a safer working environment.</li> <li>- Safety is the foundation of all project activities.</li> <li>- All actions are taken to ensure the highest level of safety.</li> </ul>	2M
6. Unloading	pinch points, musculoskeletal injuries	3H	<ul style="list-style-type: none"> <li>- Pinch point identification and guarding is implemented.</li> <li>- Ergonomic aids (padding, lifts) are used where possible.</li> <li>- Controlled unloading speeds are maintained.</li> <li>- Workers use proper body mechanics to avoid strains.</li> <li>- Area is secured before starting unloading.</li> <li>- Weight and distribution of unloaded items are managed.</li> <li>- Training emphasizes awareness of pinch points.</li> <li>- Clear communication about unloading status.</li> <li>- Regular inspection of unloading mechanism.</li> <li>- Use of tools to assist with difficult disassembly.</li> <li>- Spill containment measures are also in place here.</li> <li>- Weather considerations for outdoor unloading.</li> <li>- No overloading of the unloading mechanism.</li> <li>- Securement of components during transport.</li> <li>- Workers stay clear of moving parts.</li> <li>- Clear zones around the unloading area.</li> <li>- Signage indicating unloading activity.</li> <li>- Competent personnel manage the unloading process.</li> <li>- Emergency stop procedures are clearly defined.</li> <li>- First aid for musculoskeletal issues is available.</li> <li>- Cleanliness prevents additional hazards.</li> <li>- All equipment is used as intended.</li> <li>- Safety briefings cover specific unloading risks.</li> <li>- Load distribution is carefully monitored.</li> <li>- Prohibited activities are strictly enforced.</li> <li>- Daily safety checklists are completed.</li> <li>- Housekeeping is maintained to prevent clutter.</li> <li>- All workers are fully trained and certified.</li> <li>- Incident prevention focuses on movement safety.</li> <li>- Continuous observation of unloading process.</li> <li>- Evacuation routes remain clear.</li> <li>- Functional communication system is vital.</li> <li>- Weather monitoring includes visibility for outdoor work.</li> <li>- No unauthorized personnel near unloading zones.</li> <li>- All safety protocols are followed meticulously.</li> <li>- Work stops immediately if an unsafe condition arises.</li> <li>- Detailed documentation of unloading steps.</li> <li>- Safety performance is tracked and reported.</li> <li>- Environmental impact of unloading is minimized.</li> <li>- Public safety remains the top priority.</li> <li>- Stakeholder communication is clear and concise.</li> <li>- Contingency planning addresses various unloading scenarios.</li> <li>- Quality assurance includes verifying component integrity.</li> <li>- Team coordination ensures smooth unloading.</li> <li>- Clear exit strategies are part of the overall plan.</li> <li>- All materials are handled responsibly.</li> <li>- Weather-related decisions are made proactively.</li> <li>- Safety culture permeates every aspect of the work.</li> <li>- Accountability ensures everyone takes ownership of safety.</li> <li>- Regular safety audits identify areas for improvement.</li> <li>- Open communication fosters a safer working environment.</li> <li>- Safety is the foundation of all project activities.</li> <li>- All actions are taken to ensure the highest level of safety.</li> </ul>	2M

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7. Maintenance	electrical hazards, slip hazards	3H		2M
8. Demobilisation	vehicle collision, fall from height	3H		2M
9. Inspection	entrapment, struck-by object	3H		2M

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10. Safety Training	knowledge gaps, non-compliance	3H		1L
11. Emergency Response	panic, ineffective response	3H		2M
12. Weather Hazards	lightning, extreme heat	4A		3H

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13. Access and Egress	blocked exits, trip hazards	3H		2M
14. Communication	miscommunication, signal failure	3H		2M
15. Environmental Hazards	contamination, pollution	4A		2M

[illegible]



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19. Waste Management	chemical exposure, trip hazards	3H		1L
20. Crane Operation	overhead load, mechanical failure	4A		3H

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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 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