Swimming Pool Plumbing Work			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

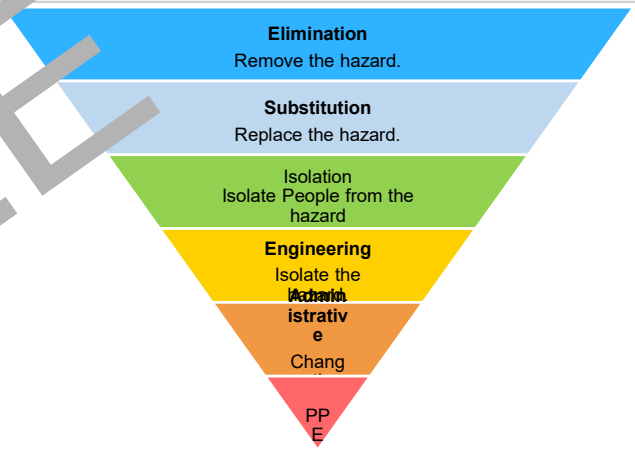
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

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
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. 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. WHS Governance, Roles and Legal Compliance	• Lack of clear WHS responsibilities for managing swimming pool plumbing work under the WHS Act 2011 and WHS Regulations • Absence of a documented WHS management system specific to swimming pool construction and plumbing activities • Failure to consult with workers and PCBUs involved in pool projects as required under WHS legislation • Inadequate integration of WHS duties into contracts with clients, builders, and subcontractors • Poor change management when project scope, design, or construction methodology changes • Lack of system for monitoring compliance with state and territory codes of practice relevant to construction and confined spaces	High	• Establish and maintain a documented WHS management system aligned with AS/NZS ISO 45001, specifically addressing swimming pool plumbing work, including responsibilities, processes, and KPIs • Define, document, and communicate role responsibilities and WHS due diligence obligations for officers, managers, supervisors, and workers involved in swimming pool plumbing projects • Embed WHS requirements, including consultation, incident reporting, and hazard management, into all contracts and service agreements with pool builders, principal contractors, and subcontractors • Implement a formal WHS consultation procedure including regular toolbox talks, pre-start WHS meetings, and mechanisms for workers to raise WHS concerns specific to pool works • Introduce a change management procedure requiring WHS risk review and sign-off when design, materials, methods, or scheduling changes may affect safety (e.g. relocation of plant room, change in pump size) • Maintain a legal register identifying applicable Acts, Regulations, Australian Standards, and codes of practice (e.g. construction work, confined spaces, hazardous chemicals, electrical safety) and assign responsibility for periodic review • Conduct periodic WHS system audits and management reviews with documented action plans, responsibilities, and timeframes • Ensure principal contractor and PCBU interfaces are formally managed through WHS coordination meetings and exchange of WHS plans, risk assessments, and site rules	Medium
2. Design, Engineering and Planning of Pool Plumbing Systems	• Poorly designed plumbing systems leading to suction entrapment, evisceration, or drowning risks for pool users • Inadequate consideration of hydraulic performance leading to pump cavitation, excessive pressure, or pipe failure • Plant room layout that creates cramped or confined conditions, poor access/egress, or unsafe manual handling • Insufficient consideration of drainage and backflow prevention, causing contamination of potable water supply • Failure to plan for safe isolation, tagging, and maintenance access to valves, pumps, filters and chemical dosing equipment • Absence of engineering review of non-standard designs or high-risk features	High	• Require all swimming pool plumbing designs to be prepared or reviewed by a suitably competent designer or engineer with experience in pool hydraulics and relevant Australian Standards • Adopt and enforce design standards and industry guidelines that address suction entrapment and circulation safety, including dual suction points, anti-entrapment covers, and flow limiting devices • Implement a formal design review process that includes WHS considerations such as safe access, egress, working space, ventilation, lighting, and separation of electrical and wet areas in plant rooms • Ensure designs incorporate appropriate isolation points, lockable valves, pressure relief devices, and clear labelling to facilitate safe maintenance and emergency response • Require documented hydraulic calculations and pump/pipe sizing to minimise risk of over-pressurisation, failure, and excessive noise or vibration • Include backflow prevention and drainage requirements into design standards to protect water quality and reduce risk of flooding in plant rooms or adjacent structures • Establish a design change approval process so that any on-site variation to plumbing layout or equipment is risk-assessed, documented, and authorised by a competent person • Maintain standard design templates and checklists for domestic, commercial, and public pools that embed known safety controls and regulatory requirements	Medium

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SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	(e.g. multiple suction points, vanishing edge systems, complex water features)			
3. Procurement and Contractor Management	• Engagement of inadequately qualified or unlicensed plumbers and subcontractors for pool works • Use of non-compliant or poor-quality pumps, pipes, valves, fittings, and suction outlets • Insufficient verification of supplier and subcontractor WHS systems and performance • Price-driven procurement that ignores lifecycle safety, maintenance, and reliability considerations • Lack of clarity on which PCBU has primary or shared WHS duties for specific stages of the pool project • Inadequate control of labour-hire workers or temporary staff engaged through agencies	High	• Develop and enforce a procurement policy that requires verification of licences, trade qualifications, insurance, and WHS capability for all plumbers and subcontractors performing pool work • Maintain an approved supplier and contractor list with documented WHS prequalification criteria, including review of safety management plans, incident history, and training records • Specify compliance with relevant Australian Standards and regulatory requirements in all purchase orders and contracts for pumps, filters, pipes, valves, suction fittings, and chemical dosing systems • Include explicit WHS clauses in contracts that address supervision, risk assessment responsibilities, consultation, incident reporting, drug and alcohol requirements, and right to stop work • Require subcontractors to submit project-specific WHS documentation (e.g. risk assessments for systems of work, induction processes, emergency procedures) prior to commencing on site • Implement a contractor performance review process that monitors WHS indicators such as incidents, non-conformances, audit findings, and adherence to site rules • Ensure agreements with labour-hire providers clearly allocate WHS responsibilities, including provision of competent workers, PPE, and training relevant to pool plumbing work • Provide all contractors and labour-hire workers with access to organisational WHS procedures and site-specific safety information prior to starting work	Medium
4. Training, Competency and Supervision	• Workers performing complex pool plumbing tasks without appropriate trade qualifications or licences • Supervisors lacking competency to identify and manage hazards unique to swimming pool environments • Inadequate induction on site-specific risks such as deep excavations, incomplete structures, and water hazards • Insufficient training on safe use of specialised pool equipment and control systems • No structured assessment of competence before allowing workers to operate unsupervised • Lack of ongoing refresher training for high-risk activities such as confined space entry, working at height, or handling hazardous chemicals	High	[redacted]	Medium

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			[redacted]	
5. Project Planning, Coordination and Site Management	• Uncoordinated work with multiple trades leading to congestion, conflicting activities, and increased risk of incidents • Inadequate planning for sequencing of plumbing works with excavation, formwork, concreting, and electrical installations • Poor control of public and client access to residential or commercial pool construction sites • Insufficient planning for water management, including filling, draining, and temporary storage of water • Failure to identify and plan for high-ri construction work associated with pool projects (e.g. excavations, confined spaces, powered mobi plan) • Lack of documen d site rules and traffic managemen rranger deliveries and plant ents	High	[redacted]	Medium
6. Hazard Identification, Risk Management and Documentation	• Failure to systematicall hazards unique to swimming pool plumbing work such as deep pits, water bodies, and suction systems • Inconsistent or undocumented risk assessments leading to variable controls between projects • Overreliance on generic SWMS or procedures that do not reflect site-specific conditions • Lack of worker involvement in identifying practical and effective control measures	High	[redacted]	Medium

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SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
	• Poor version control and accessibility of WHS documents on dispersed project sites • Inadequate review of incidents, near misses, and non-conformances to improve risk controls		[redacted]	
7. Plant, Equipment and Asset Management	• Use of defective or poorly maintained pumps, compressors, power tools, and lifting equipment during pool plumbing work • Lack of inspection regimes for temporary plant such as generators, submersible pumps, and test equipme • Inadequate guarding or safety feature on rotating or moving equipment within plant rooms • Electrical risks fro portable equipment used in et environments around pools and p t ro • Improper selection of plant for confined, sloping, or restricted acc s sites • Inaccurate or missing records of inspections, repairs, and test and tag activities	High	[redacted]	Medium
8. Hazardous Chemicals and Water Treatment Systems Management	• Improper storage, handling, or dosing of pool chemicals such as chlorine, acids, and flocculants • Inadequate ventilation and spill containment in chemical storage and plant rooms	High	[redacted]	Medium

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	• Lack of information and training on Safety Data Sheets (SDS) and chemical incompatibilities • Uncontrolled release of chemicals to the environment during installation, flushing, or commissioning of plumbing systems • Failure of automated dosing and monitoring systems leading to unsafe water quality for users • Poor labelling and segregation of chemicals leading to mixing of incompatible substances		[redacted]	
9. Confined Spaces, Plant Rooms and Restricted Areas	• Unrecognised confined spaces such as underground plant rooms, balance tanks, pits, and valve chambers associated with pool plumbing • Atmospheric hazards including oxygen deficiency, toxic gases, or chemical vapours in enclosed or poorly ventilated spaces • Difficult access and egress increasing risk during emergencies or equipment failure • Lack of formal entry procedures and permits for confined spaces and restricted plant rooms • Noise, heat, and vibration in plant rooms affecting long-term health and communication • Inadequate design and signage leading to unauthorised access to high-risk areas	High	[redacted]	Medium

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10. Emergency Preparedness and Incident Response	• Lack of coordinated emergency procedures for incidents occurring during swimming pool plumbing work • Inadequate planning for drowning, entrapment, chemical exposure, and electrical shock events • Poor access for emergency services to residential or restricted pool locations • Insufficient first aid equipment, trained first aiders, or rescue gear on or near pool work sites • Failure to report, record, and investigate notifiable incidents as required by WHS legislation • Confusion between PCBUs over who leads emergency response and communication with regulators and clients	High	[redacted]	Medium
11. Health, Wellbeing and Fatigue Management	• Worker fatigue du[redacted] heat exposure, and [redacted] demanding tasks associated with po[redacted] installation sites • Musculoskeletal disorders from repetitive bending, awkward postures, and handling of pipes, pumps, and filtration equipment • Heat stress and dehydration when working outdoors around excavations and unshaded pool areas • Psychosocial risks including stress, conflict with clients, or pressure from tight construction deadlines • Insufficient monitoring of workers performing isolated or remote pool work at private residences	High	[redacted]	Medium

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	• Drug and alcohol impairment affecting judgement and reaction time during high-risk activities		[redacted]	
12. Monitoring, Reporting and Continuous Improvement	• Lack of reliable WHS performance data specific to swimming pool plumbing operations • Failure to identify emerging risks due to changes in technology, materials, or work methods • Under-reporting of hazards, near misses, or minor incidents by workers and contractors • Ineffective corrective action processes leading to repeated incidents across projects • Insufficient management review of WHS performance and risk controls • No structured engagement with industry bodies or regulators to keep practices current	Medi	[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

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-of-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/forms-and-resources/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