Concrete Batching Plant			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

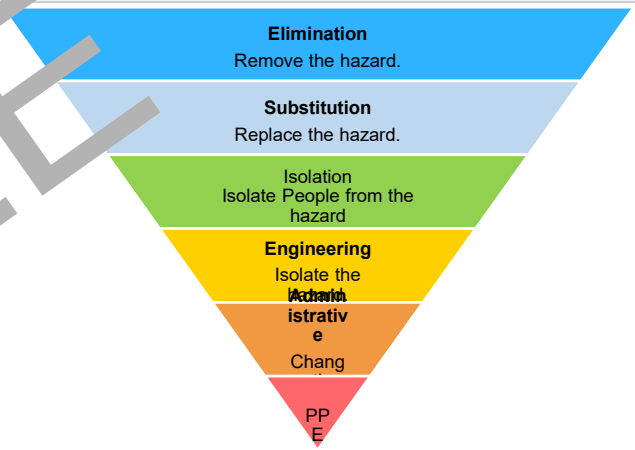
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS	SCOPE OF WORKS
Client:	
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. Governance, Legal Compliance and WHS Duty of Care	• Lack of clear WHS governance structure for the concrete batching plant (uncertain roles, responsibilities and accountabilities) • Failure to understand and apply duties under WHS Act 2011 and WHS Regulations (e.g. plant, hazardous chemicals, noise, traffic management) • Inadequate consultation mechanisms with workers and Health and Safety Representatives (HSRs) • Absence of a documented WHS management system specific to concrete batching operations • Inadequate budgeting and resourcing for WHS (training, engineering controls, maintenance, health monitoring, audits) • Poor due diligence by officers (directors, senior managers) in monitoring WHS performance and risk • No process to review and update WHS policies when legislation, standards or operational conditions change	High	• Establish a documented WHS governance framework that defines PCBU, officer, manager, supervisor and worker responsibilities in accordance with WHS Act 2011, including concrete batching specific accountabilities • Develop, implement and periodically review a WHS management system aligned with AS/NZS ISO 45001, tailored to concrete batching plant operations including plant safety, traffic, hazardous chemicals, confined spaces and noise) • Formalise WHS policies (e.g. consultation, risk management, fitness for work, incident reporting, contractor management) and communicate them to workers and contractors during induction and refresher training • Implement a structured consultation system (e.g. WHS committee, regular toolbox talks, safety alerts, engagement with HSRs) with documented actions and follow-up • Require officers to demonstrate due diligence through regular WHS performance reports, site safety walks, review of risk registers, and documented decisions addressing identified risks • Schedule annual legal compliance reviews (internal or external) against WHS Act 2011, WHS Regulations and relevant Codes of Practice (e.g. Managing Risks of Plant in the Workplace, Managing Risks of Hazardous Chemicals) • Allocate defined budget and resources for critical WHS controls (engineering upgrades, guarding, dust suppression, training, health surveillance, independent audits) • Integrate WHS criteria into strategic and operational planning, including consideration of production targets versus safe operating limits • Maintain a legal register and standards register for plant, electrical, pressure systems, mobile equipment and hazardous chemicals, with responsibilities and review dates	Medium
2. Organisational Structure, Supervision and Safety Leadership	• Ambiguous reporting lines or unclear conflicting instructions between production and safety priorities • Insufficient supervisory coverage across shifts, particularly night or weekend operations • Supervisors lacking WHS competence in plant and equipment risk management, traffic management, confined spaces and hazardous substances • Normalisation of deviance where unsafe practices are tolerated to meet production deadlines • Poor safety culture where hazards, near misses and incidents are under-reported or not acted upon	High	• Define and document organisational structure with clear reporting lines, roles and WHS responsibilities for all levels (managers, supervisors, operators, maintenance, drivers, contractors) • Provide targeted WHS leadership training for managers and supervisors including legal duties, risk management, incident investigation and safety communication skills • Embed WHS performance indicators (e.g. completion of inspections, close-out of corrective actions, participation in safety meetings) into supervisor and manager KPIs • Implement a supervision plan that ensures competent supervisory presence on all operating shifts, including contingency for leave and unplanned absences • Conduct regular leadership safety walks and documented observations focused on critical risks (traffic, plant guarding, working at heights, dust, noise, manual handling) • Establish a fair and just culture framework that encourages reporting of hazards and near misses without unreasonable blame, while addressing wilful risk-taking • Integrate WHS discussion into daily production meetings so safety and production decisions are made together and trade-offs are visible and documented	Medium

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	• Inadequate leadership visibility on site, resulting in poor enforcement of safe systems of work		• Recognise and reinforce positive safety behaviours through formal and informal programs (e.g. safety recognition, sharing of good practices between plants)	
3. Risk Management, Change Management and Planning	• Absence of a formal risk management process for plant, equipment and site layout decisions • Risk assessments not updated when production volumes, materials, additives or work methods change • Poorly managed changes to batching systems, automation, software, traffic routes or stacking arrangements • Inadequate assessment of cumulative risk (e.g. simultaneous mobile plant movements, contractor works and maintenance activities) • Failure to incorporate lessons learned from incidents, audits and near misses into risk controls • Lack of planning for emergencies specific to concrete batching operation (e.g. silo failure, chemical spills, entrapment in conveyor systems)	High	• Implement a documented risk management procedure consistent with WHS Regulations, including hazard identification, risk assessment, control selection using the hierarchy of control and periodic review • Maintain a site risk register for the batching plant that covers system and management risks (plant, traffic, hazardous substances, noise, working at height, line of fire, manual handling) • Establish a formal management of change (MOC) procedure for modifications to plant, software, materials, processes, layout and staffing levels, requiring risk assessment and approvals before implementation • Require risk assessments for simultaneous operations (SIMOPs) when maintenance, construction or contractor work overlaps with production and traffic movements • Ensure that findings from incidents, near misses, inspections and audits are systematically reviewed and integrated to update risk assessments, procedures and training • Plan and document specific emergency scenarios relevant to batching operations, including silo structural failure, mixer entrapment, dust collector fires, high-pressure line failures and spill events • Review risk controls at planned intervals (e.g. annually, or after major change) and verify effectiveness through audits, observations and worker feedback • Integrate risk management into procurement, contractor engagement and scheduling decisions rather than treating it as a stand-alone activity	Medium
4. Plant, Equipment and Engineering Control Systems	• Use of batching plant, conveyors, mixers, hoppers and silos that do not meet Australian Standards or manufacturer safety requirements • Inadequate guarding and interlocking on moving parts, pinch points and rotating equipment • Poor design of access platforms, ladders and walkways associated with plant, leading to falls from height • Lack of standardised plant isolation, lockout and tagout systems for maintenance and cleaning • Failure of critical control systems (e.g. emergency stops, level sensors, overload protection, dust extraction, alarms) due to lack of design verification and periodic testing	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
	• Uncontrolled interaction between fixed plant and mobile plant (front-end loaders, agitator trucks, forklifts) at loading points and stockpiles • Inadequate consideration of noise and vibration controls in plant selection and layout • Ineffective dust control systems at transfer points, weigh hoppers, mixers and truck loading stations		[redacted]	
5. Traffic, Mobile Plant and Site Layout Management	• Uncontrolled interaction between heavy vehicles, agitator trucks, front-end loaders, light vehicles and pedestrians in congested plant areas • Poorly designed traffic flow, including reversing into tight spaces and crossi paths at stockpiles and loading bays • Inadequate segregation of pedestrian walkways from vehicle particularly near ba plant control rooms and amenit • Insufficient system aging visiting drivers, contractors and third-party delivery vehicles • Lack of speed control, si ge and visual cues to manage line-of-sight and blind spots around mobile plant • Ineffective communication systems between loader operators, batchers, truck drivers and weighbridge personnel • Insufficient planning for peak times leading to queuing, congestion and informal parking in unsafe zones	High	[redacted]	Medium
6. Hazardous Chemicals, Dust, Respirable Crystalline	• Inadequate management of cement, fly ash, admixtures, fuels and cleaning	High		Medium

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Silica and Noise Management	agents as hazardous chemicals under WHS Regulations • Exposure of workers and contractors to respirable crystalline silica from cement, aggregates and dust-generating activities • Poor control of airborne dust from conveyors, transfer points, truck loading chutes and stockpiles • Lack of current Safety Data Sheets (SDS) and absence of chemical risk assessments for new products or admixtures • Insufficient segregation and bunding for chemical and fuel storage areas, increasing risk of spills and environmental harm • Failure to implement and enforce noise management strategies for high-noise plant and activities • Inadequate health monitoring progra for workers with potential exposure to respirable crystalline sili other hazardous substanc		[redacted]	
7. Maintenance, Inspection and Asset Management Systems	• Lack of structured preventive maintenance program for batching plant, mixers, conveyors, silos and dust collectors • Deferred maintenance due to production pressures leading to plant failures and unsafe workarounds • Inadequate inspection of structural elements (silos, platforms, supports, guardrails) leading to unnoticed deterioration or overloading • Poorly controlled access for maintenance contractors and absence of	High	[redacted]	Medium

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	coordinated isolation and permit systems • Failure to identify and manage life-limited components (e.g. high-wear parts in mixers and conveyors) • Incomplete or inaccurate maintenance records, hindering trend analysis and risk-based decision making		[redacted]	
8. Competency, Training and Behavioural Safety	• Inadequate training of batchers, plant operators, maintenance staff and drivers in site-specific hazards and safe systems • Overreliance on informal on-the-job training without structured competency assessment • Lack of verification of competencies and high-risk work authorisations (e.g. forklifts, dogging, cranes, elevated work platforms) for employees and contractors • Inadequate refresher training leading to skill fade and out-of-date knowledge of procedures and emergency responses • Failure to address at-risk behaviours and shortcuts that become normal practice • Insufficient training in emergency response, including spills, fires, structural failures and entrapment in plant	High	[redacted]	Medium
9. Contractor, Supplier and Transport Provider Management	• Contractors performing high-risk work (maintenance, electrical, civil) without adequate integration into the site WHS system	High	[redacted]	Medium

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	• Suppliers and drivers not understanding or following site safety rules and traffic management requirements • Poor pre-qualification of contractors leading to engagement of parties without adequate WHS capability • Lack of clarity regarding WHS responsibilities and interfaces between PCBU, contractors and transport providers • Inadequate monitoring of contractor performance, including non-compliance with permits, isolations and PPE requirements • Failure to manage chain of responsibility obligations in relation to loading, vehicle conditions and fatigue risks for drivers		[redacted]	
10. Emergency Preparedness, Incident Management and Business Continuity	• Lack of site-specific emergency plans for scenarios such as silo failure, structural collapse, fire, chemical spills, entrapment or serious injury • Inadequate communication to alert workers, contractors and visitors in an emergency, particularly in noisy environments • Insufficient training of emergency wardens and first aiders for batching plant-specific risks • Poorly defined arrangements with external emergency services regarding site access, plant isolation and hazardous materials • Inconsistent incident reporting, investigation and corrective action processes leading to repeated events • No consideration of WHS implications in business continuity and recovery planning following a major incident or asset failure	High	[redacted]	Medium

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			[redacted]	
11. Documentation, Records, Monitoring and Continuous Improvement	• Critical WHS procedures, risk assessments and permits not documented, out of date or not easily accessible to workers • Inconsistent record-keeping for training, inspections, maintenance, incidents and health monitoring • Lack of measurable WHS performance indicators or failure to analyse available data for trends • No formal internal audit or inspection program to test compliance with WHS requirements and effectiveness of key controls • Failure to act on audit findings, inspection reports and worker feedbac leading to a loss of trust and repeated issues • Overly complex or eneric documentation tha s not tailored to the specific batching p nt and th not used in practice	Medium	[redacted]	Low
12. Health, Wellbeing and Fatigue Management	• Extended working hours, hift work and irregular start times contributing to fatigue among plant operators, maintenance staff and drivers • Exposure to heat, cold, weather and physically demanding tasks without adequate planning for rest and hydration • Insufficient systems to support reporting and management of fitness for work issues (e.g. medical conditions, medications, alcohol and other drugs) • Psychosocial hazards from high production pressure, conflict, job insecurity or poor communication	Medium	[redacted]	Low

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	• Inadequate facilities (amenities, change rooms, rest areas) impacting worker health and hygiene		[redacted]	

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