Concrete Cutting and Drilling			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

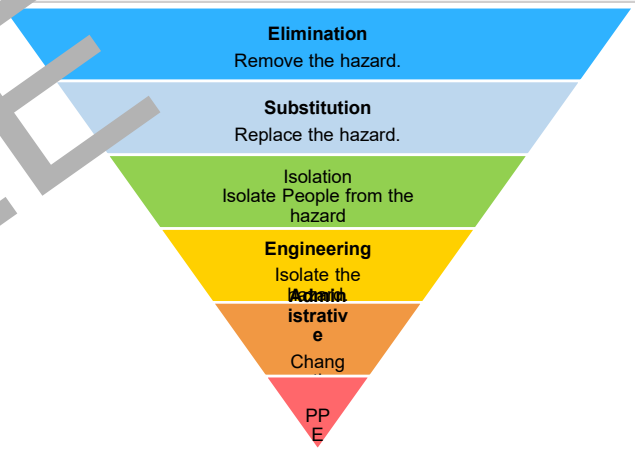
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

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, WHS Leadership and Legal Compliance	• Lack of clear WHS governance for concrete cutting and drilling activities, leading to fragmented decision-making and inconsistent standards across projects • Senior management unaware of specific duties under the WHS Act 2011 and WHS Regulations regarding plant, silica, noise, vibration and hazardous chemicals • No documented WHS objectives or performance indicators specific to high-risk concrete cutting and drilling work (e.g. slab penetrations, chasing, gangsaw and paver saw use) • Inadequate consultation with workers, health and safety representatives and subcontractors about risk controls for concrete saws, grinders and demolition saws • Failure to ensure principal contractor and subcontractors have compatible WHS management syste[illegible]for wet grinding and cutting w[illegible]k, early-entry saw-cutting and dia[illegible]ond saw operations • Poor oversight of pe[illegible]its, authorisations and approvals for sla[illegible] penetration activities that may im[illegible]t structural integrity, fire sy[illegible]l services • Lack of due diligence by officers to verify that resources, processes and competent people are in place to manage respirable crystalline silica, noise and plant risks	High	• Develop and implement an organisation-wide [illegible] governance framework that specifically identifies concrete cutting and drilling as high-risk construc[illegible]n work and a[illegible]ocates clear roles, responsibilities and authorities • Establish a docume[illegible]WHS l[illegible]al register identifyi[illegible]g all relevant WHS legislation, regulations, codes of practice and Aust[illegible]ian St[illegible]dards [illegible] concrete a[illegible]d masonry cutting, grinding and drilling, and review it at least annuall[illegible] • Includ[illegible] concr[illegible] chasin[illegible] slab penetra[illegible]n activities, masonry power cutters, quick-cut saws and wet cuttin[illegible]nding w[illegible]k i[illegible]he organisation's WHS strategic plan, with measurable KPIs for lead and lag indica[illegible]s (e.g. silic[illegible]exposure monitoring, noise dose, incidents, audits) • Requ[illegible] of[illegible]ers to d[illegible]monstrate due diligence via regular WHS reports, toolbox attendance, site inspecti[illegible]s a[illegible]verifica[illegible]n of control implementation for concrete cutting plant and processes • I[illegible]plem[illegible]t a for[illegible]al WHS consultation procedure that requires engagement with workers and subco[illegible]a[illegible]ors before introducing new saws, grinders, cutting methods or materials and when changing work met[illegible]ds (e.g. shift from dry to wet cutting) • I[illegible]tegrate concrete cutting risks into corporate risk registers and ensure periodic review by senior management and WHS committees with documented actions and close-out • Mandate project-level WHS coordination meetings where principal contractor, subcontractors and key suppliers align on standards for plant guarding, wet cutting, dust extraction, noise and vibration controls • Establish a permit-to-penetrate / permit-to-cut system for slab penetrations and service chases, requiring engineering approval and verification of services before work is authorised • Undertake scheduled internal WHS management system audits focusing on plant and silica controls for activities such as gangsaw operation, paver saw cutting, early entry saw-cutting and demolition saw use, and close findings within set timeframes	Medium
2. WHS Risk Management and Planning for Concrete Cutting Activities	• Absence of a formal, documented risk management procedure tailored to concrete cutting, grinding and drilling systems of work • Risk assessments focusing only on immediate physical actions rather than	High	• Implement a corporate WHS risk management procedure aligned to WHS Regulations that mandates formal risk assessments for all concrete cutting, grinding and drilling activities at a system level • Develop standardised high-level risk assessment templates that specifically address concrete chasing, slab penetrations, gangsaw and paver saw operations, demolition saws, masonry power cutters and wet grinding/cutting work	Medium

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	system causes such as procurement, maintenance and supervision quality • Failure to systematically identify hazards associated with respirable crystalline silica, slurry management, flying debris, noise, vibration, manual handling and plant interaction at the planning stage • No structured process for reviewing and updating risk assessments when new equipment (e.g. diamond saws, early-entry saws) or methods are introduced • Inconsistent assessment of risks arising from cutting channels for services through structural elements, fire-rated assemblies or near live services • Limited consideration of environmental factors such as confined spaces, ventilation, weather, power supply, and interaction with traffic or mobile plant • Failure to integrate controls for concrete cutting and grinding work into construction program sequencing, leading to time pressure and shortcuts		• Require project managers to complete and regularly review project-specific risk assessments for concrete cutting, considering plant selection, access/egress, services, ventilation, structural design and adjacent work areas • Include mandatory consideration of elimination and substitution options (e.g. off-site prefabrication, cast-in services, alternative materials) before adopting cutting and chasing on site • Introduce a formal change management process so that any new plant (e.g. different brand of quick-cut saw, new dust extraction systems) or new methods (e.g. early entry saw-cutting) triggers a review of risk assessments and controls • Integrate risk control requirements for cutting and grinding activities into construction program planning, including time allowances for wet cutting, slurry management and breaks to manage noise and vibration exposure • Require pre-start coordination meetings to identify conflicts between concrete cutting work and other activities (e.g. crane operations, façade works, public interface) and adjust sequencing or isolation controls accordingly • Ensure that risk assessments explicitly consider worst-case scenarios such as cutting into post-tensioned tendons, penetrating live electrical conduits or damaging fire systems, and define escalation and engineering review requirements • Maintain a central repository of project risk assessments for concrete cutting activities, with version control and access for all relevant supervisors and subcontractors	
3. Plant and Equipment Procurement and Design	• Procurement of concrete saws, grinders and drills that do not comply with Australian Standards, WHS Regulations or manufacturer safety requirements • Selection of plant without integrated dust suppression or extraction systems, leading to elevated respirable crystalline silica exposure during cutting and grinding • Purchase of equipment lacking effective guarding, blade covers, emergency stops or vibration damping features • Inadequate match between equipment capability and intended use (e.g. using	High	• Implement a formal plant procurement policy that requires pre-purchase safety evaluation and sign-off by a competent WHS or plant specialist for all concrete saws, grinders, masonry cutters and drills • Specify minimum safety design requirements for all concrete cutting and grinding plant, including compliance with relevant Australian Standards, integrated guarding, functional blade guards, emergency stop devices and lockable isolation • Mandate selection of plant with built-in wet cutting capability or on-tool dust extraction and HEPA-rated vacuum systems for concrete cutting, chasing and grinding work wherever reasonably practicable • Require suppliers to provide documented information on noise and vibration levels for each piece of plant, and include this information in the procurement evaluation process • Standardise preferred plant models across the organisation to ensure consistency of controls, parts, training materials and maintenance systems • Prohibit procurement or hire of concrete cutting plant without current test and tag (for electrical plant), verified service history and manufacturer instructions in English	Low

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	light-duty saws for deep slab penetrations or gangsaw applications) • Failure to consider compatibility of blades, diamond segments and accessories with the specific concrete or masonry materials and saw type • No formal assessment of noise and vibration emissions when procuring new concrete cutting and grinding plant • Procurement decisions based solely on purchase price rather than whole-of-life safety performance and maintenance requirements		• Evaluate compatibility of diamond blades, masonry cutting wheels and accessories with all intended uses (e.g. gangsaw, paver saw, early entry saw, demolition saw) and restrict use to approved configurations only • Incorporate whole-of-life costs into procurement decisions, including expected maintenance, blade replacement, dust extraction maintenance, training and compliance costs • Maintain a central register of approved concrete cutting and grinding plant, including technical specifications, safety features, intended applications and any limitations of use	
4. Plant Registration, Inspection and Maintenance Systems	• Lack of a centralised plant register for all concrete saws, grinders and masonry power cutters, leading to uncontrolled equipment on sites • Inadequate preventative maintenance programs, resulting in malfunctioning guards, worn blades, faulty triggers or compromised dust suppression systems • Failure to conduct routine inspections and testing of electrical components, RCDs and extension leads associated with concrete cutting and grinding plant • Use of damaged diamond plate blades and abrasive wheels on high-speed saws and grinders, increasing the risk of blade failure and ejection • No systematic process to remove defective saws and grinders from service and track repairs • Lack of maintenance records to demonstrate compliance with manufacturer requirements and WHS obligations • Poor management of mobile and hired plant, leading to uncertainty about maintenance status and inspection history	High	[redacted]	Medium

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5. Contractor and Subcontractor Management	• Engagement of subcontractors for concrete cutting, chasing, gangsaw operations and slab penetrations without adequate assessment of their WHS capability • Reliance on generic Safe Work Method Statements or risk assessments that do not address project-specific hazards such as confined spaces, adjacent traffic or existing services • Inconsistent supervision standards between principal contractor and specialist cutting subcontractors • Poor communication of site rules regarding silica controls, wet cutting, noise restrictions and hours of work • Misalignment between subcontractor plant maintenance practices and site requirements, leading to uncontrolled high-risk equipment on site • Lack of clarity on responsibilities for permits, isolations and engineering approvals when multiple contractors are involved in slab penetration activities	High	[redacted]	Medium
6. Worker Competency, Licensing and Training Systems	• Workers operating concrete saws, grinders, demolition saws or masonry cutters without adequate competency or verification of skills • Insufficient training in specific risks associated with respirable crystalline silica, noise, vibration and kickback from concrete cutting and grinding • No structured induction for new workers or subcontractors on company WHS expectations for concrete cutting and slab penetration activities • Lack of refresher training and competency reassessment for workers using high-risk plant or performing	High	[redacted]	Medium

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	complex cutting tasks (e.g. deep slab penetrations, early entry saw-cutting) • Inadequate supervision of inexperienced operators, especially during time-pressured tasks or night work • Failure to train workers in correct selection, fitting and maintenance of respiratory, hearing, eye and hand protection		[redacted]	
7. Safe Systems of Work, Procedures and Permits	• Absence of standardised procedures for concrete cutting and drilling activities across projects, leading to inconsistent controls • Over-reliance on generic, task-based SWMS without higher-level procedures addressing system controls such as plant selection, area isolation, and coordination with engineering • No formal permit system for high-risk slab penetration or cutting near critical services, structural elements or fire systems • Inadequate procedural controls for managing wet cutting and grinding slurry, including collection, disposal and slip risk management • Failure to define exclusion zones, barricading and signage requirements in organisational procedures for concrete saw and grinder operations • Lack of documented process for isolating and verifying electrical, hydraulic or mechanical services prior to cutting channels or penetrating slabs	High	[redacted]	Medium

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8. Silica, Dust, Fume and Air Quality Management	• Inadequate organisational controls to manage respirable crystalline silica generated from concrete cutting, chasing, gangsaw work, grinding and drilling • Reliance on respiratory protective equipment as the primary control rather than elimination, substitution or engineering controls • No systematic air monitoring program to verify worker exposure levels during concrete cutting and grinding activities • Poor maintenance and management of on-tool dust extraction units and wet cutting systems, reducing effectiveness over time • Lack of a documented silica exposure control plan across the organisation • Inadequate ventilation planning for cutting and grinding in basements, plan rooms or other enclosed or semi-enclosed areas • No clear system f cleaning dust and slurry, leading to r uspensio silica-containing du ntamina n of adjacent areas	High	[redacted]	Medium
9. Noise, Vibration and Ergonomic Exposure Management	• No organisational strategy for managing noise and vibration created by concrete saws, gangsaws, paver saws, grinders and demolition saws • Failure to assess and control cumulative noise exposure for workers regularly performing concrete cutting and grinding tasks • Lack of systems to monitor and manage hand-arm vibration exposure from prolonged use of high-vibration plant	High	[redacted]	Medium

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	• Poor planning of work rotation and task variety, resulting in musculoskeletal strain from repetitive or awkward cutting and grinding tasks • Inadequate consideration of building occupant and public exposure to noise and vibration during concrete chasing, slab penetrations and gangsaw operations • No defined organisational criteria for plant selection based on noise and vibration performance		[redacted]	
10. Site Layout, Traffic and Public Interface Management	• Poor planning of site layout resulting in concrete cutting and grinding activities occurring in high-traffic walkways or vehicle routes • Inadequate separation between concrete saw and grinder operations and other trades, increasing the risk of contact with moving plant, cables, hoses or debris • Lack of controls for noise, dust and flying debris impacting members of the public or building occupants during external cutting, gangsaw or paver slab work • Inadequate management of trailing leads, water hoses and slurry lines associated with wet cutting and grinding, creating trip and slip hazards • No formal traffic management plan addressing the movement of concrete cutting equipment, fuel, water and slurry removal vehicles • Failure to manage access to work areas where slab penetrations create floor openings or weakened structures	High	[redacted]	Medium

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11. Emergency Preparedness and Incident Management	• Lack of emergency response planning specific to concrete cutting and grinding incidents such as lacerations, entanglement, eye injuries, silica over-exposure or structural damage from slab penetrations • No clear procedures for responding to uncontrolled slurry or water leaks that may contact electrical systems or cause slips and falls • Inadequate first aid resources or personnel trained to respond to severe injuries from high-speed cutting equipment • Failure to plan for potential structural or services-related emergencies when cutting or drilling into slabs, walls or service risers • Poor incident reporting, investigation and corrective action processes for nea misses and injuries relat concrete cutting plant	Medium	[redacted]	Low
12. Health Monitoring and Wellbeing Management	• No structured health monitoring program for workers with repeat exposure to respirable cry e silica, noise or vibration from concrete cutting and grinding • Failure to identify early signs of occupational disease, hearing loss or vibration-related disorders among concrete cutting workers • Psychosocial risks arising from high workload, time pressure and night or weekend work associated with concrete saw and grinder operations • Insufficient systems for workers to report health concerns without fear of reprisal	Medium	[redacted]	Low

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	• Lack of integration between health monitoring outcomes and adjustments to work systems or plant allocation		[redacted]	
13. Monitoring, Audit, Review and Continuous Improvement	• Lack of systematic monitoring of WHS performance related to concrete cutting and drilling activities across projects • Failure to verify that control measures for silica, noise, plant safety and permits are being implemented as planned • No consistent audit process on high-risk plant activities such as demolition saws, quick-cut saws, earth entry saws and slab penetration work • Inadequate management review of WHS data, leading to missed opportunities to improve systems for concrete cutting risk control • Poor retention and analysis of records related to inspections, training, health monitoring and incident investigations for concrete cutting work	Medium	[redacted]	Low

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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 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