

Abrasive Blasting Processes of Industrial Manufacturing 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 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	
								4. Engineering	
								5. Administrative	
								6. PPE	
Consequence Scale:								Always document why 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. Site Assessment	Uneven surfaces, Obstacles	3H	<ul style="list-style-type: none"> - Conduct a thorough site inspection to identify hazards. - Mark and highlight any uneven surfaces. - Remove or clearly indicate any obstacles. - Install appropriate signage around hazardous areas. - Provide training to workers on site-specific risks. - Use appropriate footwear to mitigate slips and trips. - Implement regular monitoring and assessment of the workplace. - Establish a communication plan for hazard reporting. - Ensure adequate lighting is in place to enhance visibility. - Keep pathways clear from any obstructions. 	2M
2. Equipment Setup	Incorrect assembly, Faulty equipment	3H	<ul style="list-style-type: none"> - Follow the manufacturer's instructions for equipment setup. - Assemble equipment in accordance with the training provided. - Conduct pre-operational checks for all equipment. - Ensure all safety guards are in place and functional. - Have a qualified technician certify the equipment. - Lockout/tagout systems should be used for faulty equipment. - Provide operators with detailed training on equipment use. - Regularly inspect equipment for wear and tear. - Implement a maintenance schedule and record keeping. - Use only equipment that is compliant with safety standards. 	1L
3. Personal Protective Equipment (PPE)	Improper PPE use, Defective PPE	3H	<ul style="list-style-type: none"> - Ensure PPE is suitable for the tasks being performed. - Conduct regular checks and maintenance of PPE. - Train staff on correct fitting and use of PPE. - Replace damaged or faulty PPE immediately. - Ensure PPE is stored properly to avoid damage. - Provide various sizes of PPE to accommodate all users. - Encourage a culture of safety-first with PPE use. - Regularly audit PPE practices for compliance. 	1L

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			<ul style="list-style-type: none"> - Select PPE based on risk assessment outcomes. - Ensure PPE meets Australian standards. 	
4. Isolation of Area	Unauthorized access, Inadequate warning signs	4A	<ul style="list-style-type: none"> - Establish exclusion zone around work area. - Use of safety barriers and signage. - Assign a dedicated person to monitor access. - Ensure all personnel are aware of the isolation. - Use of high-visibility clothing for personnel. - Clear communication of the isolation status. - Regular checks of the isolation integrity. - Immediate action if unauthorized access is detected. - Use of lockout/tagout procedures where applicable. - Ensure all personnel are trained in isolation procedures. - Regular communication with personnel inside the isolation. - Use of a permit-to-work system. - Ensure all personnel are aware of the isolation status. - Use of high-visibility clothing for personnel. - Clear communication of the isolation status. - Regular checks of the isolation integrity. - Immediate action if unauthorized access is detected. - Use of lockout/tagout procedures where applicable. - Ensure all personnel are trained in isolation procedures. - Regular communication with personnel inside the isolation. 	2M
5. Media Handling	Contamination, Improper disposal	3H	<ul style="list-style-type: none"> - Use of appropriate PPE (gloves, goggles, etc.). - Avoid direct contact with media. - Use of dedicated tools and equipment. - Proper disposal of media in designated containers. - Regular cleaning of work area. - Avoidance of eating, drinking, or smoking in the work area. - Use of a permit-to-work system. - Ensure all personnel are aware of the contamination risk. - Use of high-visibility clothing for personnel. - Clear communication of the contamination risk. - Regular checks of the contamination control measures. - Immediate action if contamination is detected. - Use of lockout/tagout procedures where applicable. - Ensure all personnel are trained in contamination control procedures. - Regular communication with personnel inside the isolation. 	1L
6. Blasting Operation	Excessive noise, Flying particles	4A	<ul style="list-style-type: none"> - Use of appropriate PPE (earplugs, earmuffs, safety glasses, etc.). - Avoidance of direct contact with flying particles. - Use of sound barriers and noise reduction measures. - Regular monitoring of noise levels. - Use of a permit-to-work system. - Ensure all personnel are aware of the noise and flying particles risk. - Use of high-visibility clothing for personnel. - Clear communication of the noise and flying particles risk. - Regular checks of the noise and flying particles control measures. - Immediate action if noise or flying particles are detected. - Use of lockout/tagout procedures where applicable. - Ensure all personnel are trained in noise and flying particles control procedures. - Regular communication with personnel inside the isolation. 	2M

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7. Cleaning and Maintenance	Slips and trips, Chemical exposure	3H		1L
8. Final Inspection	Neglected issues, Equipment malfunction	3H		1L
9. Environmental Controls	Dust emissions, Water contamination	4A		2M

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10. Emergency Response	Inadequate training, Slow evacuation	4A		2M
11. Post-Blast Area Restoration	Unstable structures, Residual debris	3H		1L
12. Worker Health Monitoring	Exposure to silica, Chronic stress	4A		2M

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13. Communication Procedures	Miscommunication, Incomplete instructions	3H		1L
14. Waste Management	Toxic waste, Improper disposal	4A		2M
15. Job Safety Analysis Review	Outdated procedures, Non-compliance	3H		1L

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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>

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>

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>

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>

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>

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

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.