

Radiant Floor Heating Installation Risk Assessment

Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON 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	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:

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.
3H	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. 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:

- Eliminate**
- Substitute
- Isolate
- Engineering
- Administrative
- 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. Preparation	Trip hazard from tools lying around, Electric shock	3H	<ul style="list-style-type: none"> - Ensure all tools and materials are organised and stored properly - Inspect all electrical equipment and cords for damage - Use only grounded and insulated tools - Implement routine site clean up procedures - Identify all electrical sources - Educate workers on electricity risks - Ensure all personnel have access to PPE - Conduct safety briefing before starting work - Ensure clear pathways are maintained - Assign responsibility for site management 	2M
2. Layout Planning	Incorrect measurements leading to improper install, Back injury from repetitive movements	3H	<ul style="list-style-type: none"> - Double check all measurements before proceeding - Utilise proper measuring devices - Schedule regular breaks to prevent repetitive strain - Train workers on ergonomics and safe manual handling techniques - Assign team members to verify measurements - Utilise a laser level to enhance accuracy - Review plans before installation - Educate workers on potential back injury risks - Encourage sharing of physical tasks - Use cart or dolly to move heavy materials 	1L
3. Material Handling	Manual handling injuries, Slip hazard from spills	3H	<ul style="list-style-type: none"> - Use mechanical aids where possible - Clearly mark wet floor areas and restrict access - Store materials securely to prevent falls - Train staff in correct manual handling techniques - Maintain clean and dry work areas - Implement spill response procedures - Ensure adequate signage for hazards - Assign tasks to minimize heavy lifting 	2M

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			<ul style="list-style-type: none"> - Encourage the use of team lifts for heavier loads - Regularly check worksite for potential slip hazards 	
4. Floor Surface Preparation	Dust inhalation, Tool injury	3H	<ul style="list-style-type: none"> - Use appropriate PPE (respirator, eye protection, gloves) - Ensure work area is well ventilated - Use dust extraction systems - Keep work area clear of debris - Use proper tool handling techniques - Establish safe zones for tool use - Regularly inspect tools for damage - Use designated tool storage areas - Implement a permit-to-work system for high-risk tasks - Provide training on safe work practices - Conduct regular safety meetings - Use fall protection when working at heights - Ensure all workers are trained and competent - Implement a strict no-smoking policy - Use fire extinguishers in areas with potential fire hazards - Keep fire exits clear and unobstructed - Conduct fire drills regularly - Use appropriate PPE for fire hazards (fire-resistant clothing, gloves) - Ensure all workers are trained in fire safety procedures - Implement a strict no-open flames policy - Use gas detectors in areas with potential gas leaks - Ensure all workers are trained in gas safety procedures - Implement a strict no-drinking policy - Use appropriate PPE for drinking hazards (gloves, eye protection) - Ensure all workers are trained in drinking safety procedures - Implement a strict no-running policy - Use appropriate PPE for running hazards (gloves, eye protection) - Ensure all workers are trained in running safety procedures - Implement a strict no-lifting policy - Use appropriate PPE for lifting hazards (gloves, eye protection) - Ensure all workers are trained in lifting safety procedures - Implement a strict no-carrying policy - Use appropriate PPE for carrying hazards (gloves, eye protection) - Ensure all workers are trained in carrying safety procedures - Implement a strict no-throwing policy - Use appropriate PPE for throwing hazards (gloves, eye protection) - Ensure all workers are trained in throwing safety procedures - Implement a strict no-throwing policy - Use appropriate PPE for throwing hazards (gloves, eye protection) - Ensure all workers are trained in throwing safety procedures 	2M
5. Insulation Installation	Fire hazard from incorrect insulation, Knee injuries from prolonged kneeling	3H	<ul style="list-style-type: none"> - Use appropriate PPE (fire-resistant clothing, gloves) - Ensure work area is well ventilated - Use dust extraction systems - Keep work area clear of debris - Use proper tool handling techniques - Establish safe zones for tool use - Regularly inspect tools for damage - Use designated tool storage areas - Implement a permit-to-work system for high-risk tasks - Provide training on safe work practices - Conduct regular safety meetings - Use fall protection when working at heights - Ensure all workers are trained and competent - Implement a strict no-smoking policy - Use fire extinguishers in areas with potential fire hazards - Keep fire exits clear and unobstructed - Conduct fire drills regularly - Use appropriate PPE for fire hazards (fire-resistant clothing, gloves) - Ensure all workers are trained in fire safety procedures - Implement a strict no-open flames policy - Use gas detectors in areas with potential gas leaks - Ensure all workers are trained in gas safety procedures - Implement a strict no-drinking policy - Use appropriate PPE for drinking hazards (gloves, eye protection) - Ensure all workers are trained in drinking safety procedures - Implement a strict no-running policy - Use appropriate PPE for running hazards (gloves, eye protection) - Ensure all workers are trained in running safety procedures - Implement a strict no-lifting policy - Use appropriate PPE for lifting hazards (gloves, eye protection) - Ensure all workers are trained in lifting safety procedures - Implement a strict no-carrying policy - Use appropriate PPE for carrying hazards (gloves, eye protection) - Ensure all workers are trained in carrying safety procedures - Implement a strict no-throwing policy - Use appropriate PPE for throwing hazards (gloves, eye protection) - Ensure all workers are trained in throwing safety procedures - Implement a strict no-throwing policy - Use appropriate PPE for throwing hazards (gloves, eye protection) - Ensure all workers are trained in throwing safety procedures 	1L
6. Mesh Laying	Mesh cuts, Tripping over mesh	3H	<ul style="list-style-type: none"> - Use appropriate PPE (gloves, eye protection) - Ensure work area is well ventilated - Use dust extraction systems - Keep work area clear of debris - Use proper tool handling techniques - Establish safe zones for tool use - Regularly inspect tools for damage - Use designated tool storage areas - Implement a permit-to-work system for high-risk tasks - Provide training on safe work practices - Conduct regular safety meetings - Use fall protection when working at heights - Ensure all workers are trained and competent - Implement a strict no-smoking policy - Use fire extinguishers in areas with potential fire hazards - Keep fire exits clear and unobstructed - Conduct fire drills regularly - Use appropriate PPE for fire hazards (fire-resistant clothing, gloves) - Ensure all workers are trained in fire safety procedures - Implement a strict no-open flames policy - Use gas detectors in areas with potential gas leaks - Ensure all workers are trained in gas safety procedures - Implement a strict no-drinking policy - Use appropriate PPE for drinking hazards (gloves, eye protection) - Ensure all workers are trained in drinking safety procedures - Implement a strict no-running policy - Use appropriate PPE for running hazards (gloves, eye protection) - Ensure all workers are trained in running safety procedures - Implement a strict no-lifting policy - Use appropriate PPE for lifting hazards (gloves, eye protection) - Ensure all workers are trained in lifting safety procedures - Implement a strict no-carrying policy - Use appropriate PPE for carrying hazards (gloves, eye protection) - Ensure all workers are trained in carrying safety procedures - Implement a strict no-throwing policy - Use appropriate PPE for throwing hazards (gloves, eye protection) - Ensure all workers are trained in throwing safety procedures - Implement a strict no-throwing policy - Use appropriate PPE for throwing hazards (gloves, eye protection) - Ensure all workers are trained in throwing safety procedures 	2M

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7. Electric Circuit Connections	Electric shock, Incorrect wiring	4A		2M
8. Connection Testing	Electric shock, Burns from hot elements	4A		1L
9. Adhesive Application	Chemical exposure, Improper setting leading to unstable flooring	3H		1L

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10. Floor Levelling	Back injury from lifting, Tripping over equipment	3H		2M
11. Post-Installation Inspection	Overlooking defects, Equipment damage	2M		1L
12. Clean Up	Injury from lifting heavy debris, Chemical burns from cleaning agents	3H		2M

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13. Waste Disposal	Injury from sharp objects, Environmental damage from improper disposal	3H		1L
14. Final System Testing	Incomplete testing, Unidentified malfunction	3H		1L
15. Client Handover	Inadequate detail in handover, Client mishandling the installed system	2M		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.