

Saturation System Maintenance 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:

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. Preparation	manual handling, slip and trip	3H	<ul style="list-style-type: none"> - Provide manual handling training - Ensure proper lifting techniques are used - Keep work area clean and dry - Use non-slip mats where necessary - Conduct pre-task briefing to identify hazards - Ensure appropriate footwear is worn - Maintain clear access to work area - Use team lifting for heavy items - Perform job rotation to minimise strain - Keep walkways clear of obstacles 	2M
2. Isolating the System	electrical shock, unexpected system activation	4H	<ul style="list-style-type: none"> - Secure all relevant work permits - De-energise and isolate the system - Lockout/tagout procedures must be implemented - Verify isolation with appropriate testing equipment - Establish communication plan for team - Use signage to indicate maintenance work - Ensure all team members are briefed on isolation process - Appoint a dedicated safety observer - Use insulated tools - Apply personal protective equipment 	2M
3. Draining the System	chemical exposure, high pressure release	4A	<ul style="list-style-type: none"> - Wear chemical resistant gloves and goggles - Use respiratory protection if necessary - Implement pressure release protocols - Follow all chemical handling procedures - Use correct disconnect tools for pressure release - Ensure drainage area is clear and marked - Provide an emergency containment system - Obtain data sheets for chemicals involved 	1L

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
			<ul style="list-style-type: none"> - Establish a first aid station nearby - Conduct risk assessment for hazardous substances 	
4. Inspecting System Components	sharp edges, falling objects	3H	<ul style="list-style-type: none"> - Wear appropriate PPE (gloves, safety glasses, hard hat) - Use proper lifting techniques - Ensure work area is clear of obstacles - Use fall protection when working at height - Inspect components for damage before use - Use tools correctly and safely - Keep hands and feet clear of moving parts - Use lockout/tagout procedures - Follow manufacturer's instructions - Use proper storage and handling procedures - Keep work area clean and organized - Use proper disposal methods for waste - Use proper ventilation - Use proper fire safety procedures - Use proper electrical safety procedures - Use proper chemical safety procedures - Use proper biological safety procedures - Use proper radiation safety procedures - Use proper nuclear safety procedures - Use proper environmental safety procedures - Use proper occupational safety procedures - Use proper public safety procedures - Use proper security procedures - Use proper emergency procedures - Use proper communication procedures - Use proper documentation procedures - Use proper record keeping procedures - Use proper training procedures - Use proper supervision procedures - Use proper coordination procedures - Use proper planning procedures - Use proper execution procedures - Use proper evaluation procedures - Use proper improvement procedures - Use proper maintenance procedures - Use proper repair procedures - Use proper replacement procedures - Use proper disposal procedures - Use proper recycling procedures - Use proper energy conservation procedures - Use proper waste reduction procedures - Use proper pollution prevention procedures - Use proper environmental protection procedures - Use proper occupational health procedures - Use proper safety procedures 	2M
5. Cleaning Components	chemical burns, allergic reactions	4A	<ul style="list-style-type: none"> - Wear appropriate PPE (gloves, safety glasses, hard hat) - Use proper lifting techniques - Ensure work area is clear of obstacles - Use fall protection when working at height - Inspect components for damage before use - Use tools correctly and safely - Keep hands and feet clear of moving parts - Use lockout/tagout procedures - Follow manufacturer's instructions - Use proper storage and handling procedures - Keep work area clean and organized - Use proper disposal methods for waste - Use proper ventilation - Use proper fire safety procedures - Use proper electrical safety procedures - Use proper chemical safety procedures - Use proper biological safety procedures - Use proper radiation safety procedures - Use proper nuclear safety procedures - Use proper environmental safety procedures - Use proper occupational safety procedures - Use proper public safety procedures - Use proper security procedures - Use proper emergency procedures - Use proper communication procedures - Use proper documentation procedures - Use proper record keeping procedures - Use proper training procedures - Use proper supervision procedures - Use proper coordination procedures - Use proper planning procedures - Use proper execution procedures - Use proper evaluation procedures - Use proper improvement procedures - Use proper maintenance procedures - Use proper repair procedures - Use proper replacement procedures - Use proper disposal procedures - Use proper recycling procedures - Use proper energy conservation procedures - Use proper waste reduction procedures - Use proper pollution prevention procedures - Use proper environmental protection procedures - Use proper occupational health procedures - Use proper safety procedures 	1L
6. Replacing Worn Parts	strains, pinch points	3H	<ul style="list-style-type: none"> - Wear appropriate PPE (gloves, safety glasses, hard hat) - Use proper lifting techniques - Ensure work area is clear of obstacles - Use fall protection when working at height - Inspect components for damage before use - Use tools correctly and safely - Keep hands and feet clear of moving parts - Use lockout/tagout procedures - Follow manufacturer's instructions - Use proper storage and handling procedures - Keep work area clean and organized - Use proper disposal methods for waste - Use proper ventilation - Use proper fire safety procedures - Use proper electrical safety procedures - Use proper chemical safety procedures - Use proper biological safety procedures - Use proper radiation safety procedures - Use proper nuclear safety procedures - Use proper environmental safety procedures - Use proper occupational safety procedures - Use proper public safety procedures - Use proper security procedures - Use proper emergency procedures - Use proper communication procedures - Use proper documentation procedures - Use proper record keeping procedures - Use proper training procedures - Use proper supervision procedures - Use proper coordination procedures - Use proper planning procedures - Use proper execution procedures - Use proper evaluation procedures - Use proper improvement procedures - Use proper maintenance procedures - Use proper repair procedures - Use proper replacement procedures - Use proper disposal procedures - Use proper recycling procedures - Use proper energy conservation procedures - Use proper waste reduction procedures - Use proper pollution prevention procedures - Use proper environmental protection procedures - Use proper occupational health procedures - Use proper safety procedures 	2M

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7. Reassembly	incorrect assembly, cross-threading	3H		2M
8. Checking for Leaks	slippery surfaces, exposure to hazardous gases	4A		1L
9. System Pressure Testing	pressure vessel rupture, noise exposure	4A		2M

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10. Recommissioning System	equipment malfunction, data misconnection	3H		1L
11. Final Inspection	incomplete task list, hidden faults	3H		1L
12. Secure Work Area	uncontrolled entries, residual waste	3H		1L

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13. Debrief	miscommunication, incomplete knowledge transfer	2M		1L
14. Equipment Storage	equipment damage, misplacement	2M		1L
15. Documentation	data loss, inaccurate records	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.