General Manufacturing Cleaning and Maintenance

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:

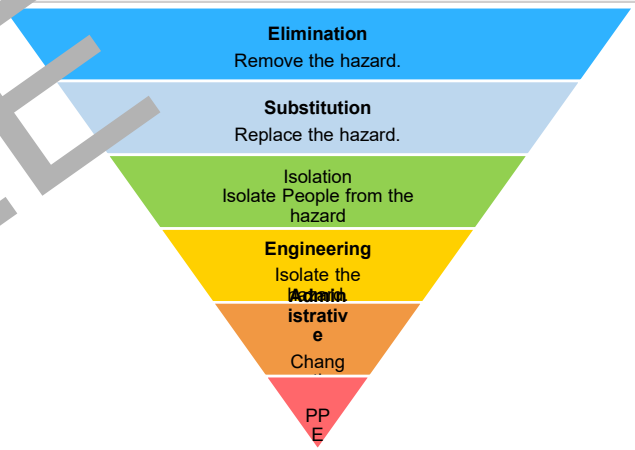
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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
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. WHS Governance, Duties and Consultation	• Lack of clear WHS roles, responsibilities and due diligence for PCBUs and officers under WHS Act 2011 • Inadequate consultation with workers and HSRs about cleaning and maintenance risk controls • Failure to integrate contractor WHS management into site governance arrangements • Insufficient resourcing (time, budget, competent people) for safe cleaning and maintenance of manufacturing plant • Poor change management for new processes (e.g. dip tanks, coating baths, automated lines) impacting existing controls	4A	• Establish and document a WHS governance framework referencing WHS Act 2011, WHS Regulations and relevant Codes of Practice for manufacturing and plant • Define and communicate specific WHS duties for officers, managers, supervisors, maintenance planners and contractors involved in cleaning and maintenance • Implement a formal WHS consultation procedure with toolbox talks, HSR forums and participation in risk assessments for cleaning and maintenance activities • Embed WHS performance indicators (e.g. completion of inspections, corrective actions closed out, training compliance) into management reporting • Develop a change management procedure requiring WHS risk assessment and approval before introducing new equipment, chemicals, line layouts or cleaning methods	3H
2. Contractor, Labour Hire and Visitor Management	• Inadequate pre-qualification of contractors performing industrial cleaning, dip tank servicing or specialised maintenance • Poor communication of site-specific hazards (e.g. moving automated lines, coating baths, dust collection systems) to contractors and labour hire workers • Lack of clear interface arrangements between contractor SWMS and principal PCBU systems • Insufficient supervision of contractors performing high-risk maintenance during shutdowns or after hours • Failure to verify licences, competencies and insurances for specialist maintenance providers	4A	• Implement a contractor WHS pre-qualification process covering insurances, licences, WHS performance history and documented safety systems • Require contractor-provided SWMS and risk assessments for relevant high-risk construction work to be reviewed and accepted before work commences • Establish site induction programs for all contractors and labour hire workers, including hazards specific to automated lines, dip tanks, mixing operations and dust systems • Develop contractor interface plans that define responsibilities for isolation, permits, supervision, emergency response and communication • Use a contractor performance review system that includes periodic audits of compliance with WHS requirements and corrective actions for non-conformances	2M
3. Plant Design, Guarding and Engineering Controls	• Poorly designed plant that requires bypassing guards or interlocks for cleaning and maintenance access • Inadequate fixed guarding and interlocked access for moving parts on automated lines, conveyors and fabrication equipment	4A	• Apply formal plant design and procurement standards requiring compliance with AS/NZS 4024 series and relevant Australian Standards for guarding and safety • Ensure all new and modified plant incorporate fixed guards, interlocks and safe access features specifically allowing for cleaning and maintenance tasks • Undertake engineering reviews and risk assessments of existing equipment to identify and prioritise retrofitting of guarding and access improvements	2M

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	• Lack of engineered access platforms, walkways and fall protection for high or awkward cleaning points (e.g. dust collectors, overhead ducting) • Insufficient design controls for dip tanks, coating baths and mixing vessels (e.g. overflow protection, agitation guards, covers) • Use of legacy machinery without modern safety features (e.g. emergency stops, two-hand controls, light curtains)		• Provide engineered platforms, ladders, walkways and anchor points designed to AS/NZS requirements for access to elevated dust systems and process equipment • Maintain a plant register with documented safety f[redacted]ions, verification of safety circuits and periodic validation of interlocks, E-stops and safety PLCs	
4. Isolation, Lockout–Tagout and Energy Control Systems	• Inadequate lockout–tagout (LOTO) procedures for cleaning and maintenance of automated lines, mixers, dip tanks and fabrication equipment • Failure to isolate all energy sources, including electrical, pneumatic, hydraulic, mechanical, thermal and stored energy • Poorly identified or inaccessible isolation points on machinery and dust collection systems • Lack of verification (test[redacted]ead) processes before co[redacted]encing intrusive cleaning or mainte[redacted]nce • Contractors or cl[redacted]ers [redacted] informal isolation arra[redacted]ements with[redacted] lockout devices	4A	[redacted]	2M
5. Hazardous Chemicals, Coatings and Dip Tank Management	• Exposure to hazardous [redacted]s used in cleaning, coating baths and dip tank operations (e.g. solvents, corrosives, isocyanates) • Inadequate chemical labelling, decanting practices and lack of up-to-date Safety Data Sheets (SDS) • Poor ventilation and fume extraction around dip tanks, coating baths and mixing operations • Uncontrolled chemical reactions or contamination during material mixing and tank maintenance	4A	[redacted]	2M

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	• Insufficient control of flammable liquids and vapours creating fire or explosion risk			
6. Confined Spaces and Restricted Access Areas	• Unrecognised confined spaces within dust collection systems, tanks, pits and enclosed process equipment • Inadequate confined space entry procedures for internal cleaning and maintenance of tanks, ducts and vessels • Insufficient atmospheric testing and ventilation before and during entry into process equipment • Lack of standby personnel, retrieval systems and emergency rescue capability for confined space entries • Misclassification of restricted spaces leading to uncontrolled entry for inspection or cleaning	4A	[redacted]	2M
7. Dust, Fume and Airborne Contaminant Control	• Accumulation of combustible dust in manufacturing areas, dust collection systems and on structural surfaces • Inadequate design, maintenance and monitoring of dust extraction and filtration systems • Generation of welding fume, dusts and other airborne contaminants during fabrication tasks and part preparation • Ineffective housekeeping systems leading to secondary dust explosions or slip hazards • Poorly controlled filter change-outs and cleaning of dust collectors exposing workers to high dust concentrations	4A	[redacted]	2M
8. Mechanical Handling, Material Flow and Stock Preparation Systems	• Poorly controlled interaction between people and moving plant such as forklifts, automated conveyors, robots and mobile equipment • Inadequate design of material flow and stock preparation areas leading to	3H	[redacted]	2M

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	congestion, manual handling and trip hazards during cleaning • Unclear traffic management and pedestrian routes around automated lines and storage zones • Lack of systems for safe isolation, blocking and securing of materials during line cleaning and maintenance • Uncontrolled use of makeshift equipment (e.g. pallets, bins) as access or support for cleaning activities		[redacted]	
9. Electrical Safety and Automation Control Systems	• Inadequate electrical design, segregation and protection of circuits associated with automated manufacturing and dust collection systems • Bypassing or defeating safety-related control systems (e.g. interlocks, light curtains, safety relays) for maintenance convenience • Electrical work performed by unlicensed or uncompetent personnel, particularly during shutd[redacted]eaning and modifications • Poor manageme[redacted]of software changes to PLCs, robotics a[redacted]safe[redacted]ntrol[redacted]s impacting safe operation • Insufficient inspection and testing[redacted] portable electrical equip[redacted]t[redacted]s for cleaning (e.g. vacuums, pressure washers)	4A	[redacted]	2M
10. Safe Systems of Work, Procedures and Lean Execution	• Absence or poor quality of documented procedures for routine and non-routine cleaning and maintenance of manufacturing equipment • Over-reliance on informal knowledge and shortcuts developed through lean or continuous improvement activities • Inadequate integration of WHS considerations into lean manufacturing, 5S and continuous improvement projects	3H	[redacted]	2M

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	• Failure to review and update procedures after incidents, near misses or process changes • Complex or impractical procedures that are not followed in the field		[redacted]	
11. Training, Competency and Supervision	• Insufficient training on plant hazards, isolation, chemical handling and emergency procedures for cleaners and maintenance personnel • Lack of competency assessment for specialised tasks such as dip tank operations, confined space entry and high-risk maintenance • Inadequate supervision of new workers, apprentices and contractors during complex maintenance activities • Training delivered as a one-off event with no refresher or verification of understanding • Language, literacy or cultural barriers leading to misunderstanding of critical safety information	3H	[redacted]	2M
12. Work Environment, Housekeeping and Access	• Poor housekeeping leading to slips, trips, falls and obstructed access during cleaning and maintenance • Inadequate lighting around machinery, stock preparation areas and dust collection systems • Uncontrolled noise exposure from fabrication equipment, extraction systems and automated lines • Lack of systems for managing temporary leads, hoses, tools and parts during maintenance works • Blocked emergency exits or access to firefighting and first aid equipment due to stored materials or maintenance activities	3H	[redacted]	2M
13. Health Monitoring, Fatigue and Occupational Hygiene	• Chronic exposure to hazardous substances (e.g. solvents, isocyanates,	3H	[redacted]	2M

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	metal dusts) during repeated cleaning and fabrication tasks • Fatigue related to shift work, extended shutdowns and after-hours maintenance impacting decision-making and reaction times • Insufficient health monitoring where required by WHS Regulations or SDS (e.g. for certain hazardous chemicals or noise) • Inadequate management of heat stress in enclosed or hot manufacturing areas during intensive cleaning • Psychosocial risks such as time pressure, conflicting production and maintenance priorities and limited worker control over tasks		[redacted]	
14. Emergency Preparedness and Incident Management	• Lack of suitable emergency response plans for chemical spills, fires, explosions and plant failures in automated and mixing operations • Insufficient drills and training for scenarios involving dip t[redacted]oating baths and dust colle[redacted]n system incidents • Inadequate first a[redacted] and trained personnel du[redacted]weekend or night maintenance shifts • Poor incident reporting c[redacted]ading to under-reporting of near misses and minor events • Delayed or ineffective response due to unclear communication channels and responsibilities	3H	[redacted]	2M
15. Procurement, Design Review and Change Management for Plant and Processes	• Procurement of new machinery, cleaning systems or chemicals without formal WHS input or risk assessment • Introduction of lean manufacturing changes that unintentionally increase risk (e.g. reduced buffers, higher speeds, reduced staffing)	4A	[redacted]	2M

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	• Lack of pre-commissioning safety verification for new automated lines, coating systems and dust collectors • Poor documentation transfer from suppliers regarding maintenance requirements, safety systems and residual risks • Uncontrolled modifications to existing plant, guarding, control systems or dip tanks by in-house personnel		[redacted]	
16. Assurance, Auditing and Continuous Improvement	• Assumption that documented systems are implemented without verification in the field • Failure to detect degradation of controls for isolation, housekeeping, dust systems and chemical management over time • Incomplete close-out of corrective actions from inspections, incidents and audits • Limited use of data and trends from inspections, near misses and health monitoring to improve co • Over-reliance on P E rather than addressing higher vel control failures	3H	[redacted]	2M

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