

Conveyor Safety

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:	

SAMPLE

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. Conveyor System Design & Procurement	<ul style="list-style-type: none"> Inadequate guarding provisions specified at design stage for belts, rollers, pulleys and nip points Failure to design in safe access for inspection, maintenance and cleaning leading to unsafe improvisation Conveyor layouts that create crush, shear or entanglement zones near walkways and workstations Lack of consideration of thermal hazards for conveyor ovens and heated flat-bed systems Insufficient design consideration for overhead chain conveyors passing above work areas (risk of dropped loads or components) Incompatible equipment sourced from multiple suppliers without unified safety standards Failure to comply with relevant Australian Standards for conveyor systems and machinery Under-specification of emergency stop devices and pull cords for long conveyor runs 	4A	<ul style="list-style-type: none"> Adopt an engineering and procurement standard that requires compliance with WHS Act 2011, WHS Regulations and relevant Australian Standards (AS 1755, AS 4024 series for machinery safety) Specify at procurement that all conveyors (belt, roller, flat-bed, woven, overhead chain, elevators) must include integral guarding for pinch points, moving parts and entanglement hazards Ensure design in safe access platforms, walkways, stairs and fixed ladders that comply with AS 1657 for all inspection and maintenance zones Include in design specification the requirement for solid barriers or guarding under overhead chain conveyors to control dropped object risk over pedestrian or work areas Require risk-based selection of emergency stop devices, pull-cord systems and isolation switches along conveyor routes with maximum spacing distances defined Mandate the designer to complete a documented Safety in Design (SiD) risk assessment that considers normal operation, upset conditions, cleaning, maintenance and breakdown recovery Standardise technical specifications across all conveyors to ensure interoperability, consistent guarding philosophy and uniform control systems Include minimum performance requirements for brakes, holdbacks, anti-runback devices and start-up warning systems in the design documentation 	3H
2. Guarding, Physical Barriers & Interlocks	<ul style="list-style-type: none"> Missing or inadequate guards on nip points between belts and rollers, drive pulleys and tail pulleys Interlocks on guards bypassed or not provided, allowing access to moving parts Removable guards not designed for easy reinstallation, leading to guards left off after maintenance Inadequate barriers or trays beneath overhead chain conveyors exposing workers to falling items or lubrication Guarding on conveyor ovens not accounting for high surface temperatures and potential burns 	4A	<ul style="list-style-type: none"> Implement a conveyor guarding standard that defines required guard types, materials, fixing methods and reach distances in accordance with AS 4024.1601 and AS 4024.1801 Ensure all critical guards are interlocked with the control system so the conveyor cannot run when guards are open or removed, except under controlled maintenance modes Standardise the use of captive fasteners and hinged guards to discourage removal and misplacement of fixed guarding Require engineering review and sign-off before any modification, removal or change to existing guarding or barriers Install solid pans, mesh trays or catch nets under overhead chain conveyors in areas where pedestrians or workstations are located to control dropped objects and fluid drips Include scheduled inspections of all conveyor guards and interlocks in the preventative maintenance and WHS inspection programs, with deficiencies logged and rectified 	2M

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	<ul style="list-style-type: none"> • Use of mesh or open guards that still allow reach into hazardous zones • Failing to lock and tag out conveyors when guards are removed for inspection or cleaning 		<ul style="list-style-type: none"> • Mandate lockout/tagout procedures and permits for any work requiring guard removal, including cleaning, jam clearance and belt tracking • Provide clear signage indicating that guards are safety devices and must not be altered or removed except under authorised procedures 	
3. Control Systems, Isolation & Emergency Stops	<ul style="list-style-type: none"> • Inadequate or poorly located emergency stop devices along conveyor routes • Failure of isolation systems, allowing unintentional start-up during maintenance or cleaning • Control logic that allows remote starting of conveyors without effective warning to workers in the vicinity • Complex or inconsistent control interfaces across different conveyors increasing risk of operator error • Emergency stop pull cords not maintained, tensioned or tested, rendering them ineffective • Lack of clearly defined hierarchy of controls for manual, automatic and interlocked sequences across processing conveyors • Startup warnings not audible or visible in noisy or visually obscured process areas 	4A	<ul style="list-style-type: none"> • Develop a conveyor control system standard defining minimum requirements for emergency stops, pull-cords, isolation points and reset functions • Ensure emergency stop devices and pull cords are installed within easy reach along the full length of accessible conveyor sections in accordance with relevant standards • Implement lockable isolation points (mechanical and electrical) at strategic locations, clearly labelled and including isolation procedures and training • Configure control systems to require local acknowledgement and visual inspections before remote start-up of conveyors in processing plants and near ovens • Standardise control panel layout, labelling and indicator lights across all conveyors to reduce operator confusion and improve response during abnormal conditions • Implement scheduled testing regime for emergency stops, pull-cords and isolation devices with results recorded and defects escalated • Install audible and visual start-up alarms on all conveyors, with duration set to allow workers time to move to a place of safety • Ensure that safety-related control functions are designed with appropriate safety integrity (e.g. safety relays, redundant circuits) where risk assessment supports this 	2M
4. Conveyor Installation, Commissioning & Modifications	<ul style="list-style-type: none"> • Improper installation leading to misalignment, tracking issues and increased risk of belt failure or spillage • Commissioning under production pressure without full verification of safety functions and interlocks • Uncontrolled modifications to conveyors (e.g. adding chutes, guides, hoods) that create new pinch points or block access to emergency stops • Failure to verify load ratings and structural supports for overhead chain and elevated conveyors • Incomplete documentation of as-built configuration, leading to confusion in 	3H	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> future maintenance and risk assessments Temporary bypassing of safety systems during commissioning that are not removed post-completion 		[REDACTED]	
5. Maintenance, Inspection & Reliability Management	<ul style="list-style-type: none"> Inadequate preventative maintenance leading to belt failures, roller seizures, tracking issues and structural degradation Reactive "breakdown only" maintenance culture resulting in work under production pressure and bypassing of safety systems Unplanned entry into hazardous zones to clear jams or adjust belts on running conveyors Lack of systematic inspection of critical components such as pulleys, bearings, brakes and holdbacks Failure to monitor and maintain conveyor oven components, increasing risk of fires or overheating Maintenance work undertaken by untrained or unauthorised personnel, particularly on overhead and elevated conveyors 	4A	[REDACTED]	2M
6. Operational Procedures & Safe Systems of Work	<ul style="list-style-type: none"> Absence of formal operating procedures for different conveyor types and operating modes Reliance on informal knowledge for conveyor shutdown, restart and jam clearing practices Unsafe practices such as riding on conveyors, climbing over belts or using conveyors as work platforms Inconsistent rules for working near conveyors in processing plants, including use of tools and temporary access platforms Failure to control simultaneous operations (e.g. maintenance on one 	3H	[REDACTED]	2M

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	<p>section while adjacent conveyors remain running)</p> <ul style="list-style-type: none"> Improper use of conveyors to transport incompatible materials, creating dust, fume or fire hazards particularly in ovens 		[REDACTED]	
7. Competency, Training & Supervision	<ul style="list-style-type: none"> Operators and maintenance personnel not fully understanding conveyor hazards such as nip points, entanglement and stored energy Inadequate training in emergency stop locations, isolation procedures and responses to alarms Supervisors lacking technical understanding of conveyor risks, leading to tolerance of unsafe practices High use of labour hire or contractors without site-specific induction on conveyor systems Failure to refresh training as equipment, layouts or control systems change 	3H	[REDACTED]	2M
8. Working Near Conveyors & Interface with Other Plant	<ul style="list-style-type: none"> Workers being drawn into pinch points while working adjacent to moving belts, rollers or overhead conveyors Interaction between mobile plant (e.g. forklifts) and conveyor load/unload points leading to collisions, injuries or falls from height Manual handling of products onto or off conveyors at poorly designed transfer points Exposure to sharp edges, protrusions or damaged belt fasteners along walkways Uncontrolled pedestrian access under overhead conveyors and near exposed rollers Lack of coordination between different departments (e.g. production, 	4A	[REDACTED]	2M

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	maintenance, logistics) at shared conveyor interfaces			
9. Emergency Response, Jam Clearing & Rescue	<ul style="list-style-type: none"> Unplanned and unsafe attempts to clear jams from conveyors, particularly in processing lines and ovens Delay in stopping conveyors when a person or clothing becomes entangled due to poor awareness of emergency stops Lack of clear protocols for responding to fires in conveyor ovens or belt fires Inadequate rescue procedures for workers caught in or under overhead or elevated conveyors Failure to communicate conveyor-related emergencies effectively across the plant 	3H	[REDACTED]	2M
10. Hazardous Energy, Stored Energy & Isolation Management	<ul style="list-style-type: none"> Residual or stored energy (mechanical, electrical, hydraulic, pneumatic, gravitational, thermal) not controlled before working on conveyors Unclear isolation points for complex conveyor networks leading to partial ineffective isolation Release of tension in belts or chains causing sudden movement or snap-back during maintenance Failure to isolate heating elements and fans in conveyor ovens before access for cleaning or repairs Multiple contractors working on shared conveyor systems without a coordinated isolation plan 	4A	[REDACTED]	2M
11. Environmental Factors, Housekeeping & Fire Safety	<ul style="list-style-type: none"> Build-up of dust, product, grease or debris on and around conveyors increasing slip, trip and fire risks 	3H		2M

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	<ul style="list-style-type: none"> Poor lighting around conveyor routes, especially under overhead conveyors and in plant rooms Exposure of belts, rollers or drives to corrosive or wet environments leading to structural or electrical failures Inadequate ventilation and extraction around conveyor ovens leading to heat stress, fume exposure or fire escalation Use of incompatible cleaning methods (e.g. high-pressure washing near electrical components) damaging safety systems 		[REDACTED]	
12. Contractor Management & Third-Party Interfaces	<ul style="list-style-type: none"> Contractors working on conveyor systems without understanding site-specific hazards, controls and isolation requirements Inconsistent safety standards between contractors and the host organisation leading to gaps in control measures Poor coordination between multiple contractors working on interfacing conveyors, ovens and processing equipment Lack of verification of contractor competency in specialised conveyor maintenance or installation 	3M	[REDACTED]	2M
13. Monitoring, Inspections, Audits & Continuous Improvement	<ul style="list-style-type: none"> Deterioration of conveyor safety controls over time due to lack of systematic monitoring Missed early warning signs of failures such as unusual noises, tracking issues or small fires in ovens Non-compliance with procedures becoming normalised due to infrequent supervision or audits Failure to incorporate incident findings and industry alerts into conveyor safety management systems 	3H	[REDACTED]	1L

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			[REDACTED]	
14. Documentation, Labelling & Signage	<ul style="list-style-type: none"> Workers unable to identify conveyor controls, isolation points and emergency devices due to poor labelling Outdated or missing documentation leading to incorrect assumptions about conveyor capabilities and hazards Lack of clear signage around hot surfaces on conveyor ovens and moving parts on overhead or roller conveyors Failure to communicate changes to conveyor configurations or control systems in a timely manner 	2M	[REDACTED]	1L
15. Organisational Governance & WHS Legal Compliance	<ul style="list-style-type: none"> Failure to identify and manage conveyor risks in line with WHS Act 2011 due diligence requirements Lack of clear accountability for conveyor safety across management, engineering and operations Insufficient resourcing for maintenance, upgrades and training for conveyor safety Inadequate consultation with workers and Health and Safety Representatives on conveyor risk controls 	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>

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 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-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) Regulation 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>

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>

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

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.