

Conveyors (Flat Belt)

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:	
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. Design, Procurement and Installation Governance	<ul style="list-style-type: none"> Conveyors specified, purchased or installed without formal WHS risk assessment aligned to WHS Act 2011 and WHS Regulation Inadequate guarding, emergency stops, pull-wires and isolation points due to poor design standards or cost-driven procurement Use of non-compliant or unsuitable components (e.g. belts, drives, nip guards, control systems) that do not meet relevant Australian Standards (e.g. AS 4024 series) Lack of engineering sign-off and verification for stopping distances, load ratings and structural integrity Poor layout design resulting in restricted access, inadequate egress, and unsafe interaction between people, mobile plant and conveyors Failure to consider maintenance access, working at height and cleaning requirements at design stage Inadequate integration of conveyors into existing plant controls and emergency systems 	High	<ul style="list-style-type: none"> Establish a formal plant procurement and modification procedure that mandates WHS risk assessment, consultation and documented approvals for all purchases or purchases and changes Specify compliance with relevant Australian Standards (e.g. AS 4024 Safety of Machinery series, AS 1755 for conveyors where applicable) and OEM safety requirements in all purchase and installation contracts Require designs to be reviewed and signed off by a competent engineer, including calculations for stopping distances, guarding design, load ratings and structural supports Implement a management of change (MOC) process for any alteration to conveyor design, capacity, guarding, control system, layout or operating mode Include WHS, maintenance and operational representatives in design reviews to ensure access, egress, isolation and cleaning requirements are adequately controlled Mandate independent pre-commissioning safety inspections and functional testing of guarding, emergency stops, pull-wires, interlocks and isolation systems prior to handover Maintain a controlled register of conveyor engineering drawings, layout plans, specifications and OEM manuals accessible to relevant personnel Ensure integration of conveyor controls with site emergency stop systems, fire systems and upstream/downstream plant through documented control system design 	Medium
2. Governance, Roles and WHS Responsibilities	<ul style="list-style-type: none"> Unclear allocation of duties for conveyor safety, inspection, maintenance and operational oversight Lack of senior management accountability for ensuring conveyor risks are identified, assessed and controlled so far as is reasonably practicable Insufficient supervision and monitoring of conveyor operations and maintenance activities Poor consultation with workers and health and safety representatives on conveyor risks and control effectiveness 	High	<ul style="list-style-type: none"> Define and document conveyor safety responsibilities in WHS governance documents, position descriptions and contracts for managers, supervisors, operators and maintenance personnel Establish a plant safety committee or equivalent forum with specific responsibility for oversight of conveyor risks and performance indicators Implement a formal supervision structure for conveyor areas, including documented expectations for safety leadership, field verification and corrective action follow-up Develop and communicate a conveyor safety policy that sets expectations for compliance with the WHS Act 2011, WHS Regulation and applicable standards Set up regular consultation mechanisms (toolbox talks, HSR forums, safety meetings) to capture worker input on conveyor hazards, near misses and improvement opportunities Implement documented arrangements for shared duty management where multiple PCBUs are involved, including interface agreements outlining responsibilities for plant, maintenance and supervision 	Medium

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	<ul style="list-style-type: none"> Failure to coordinate WHS duties between PCBUs sharing the workplace (e.g. contractors, labour hire, OEMs) 		<ul style="list-style-type: none"> Monitor and review conveyor safety performance at management level using KPIs such as inspection completion, corrective action closure, incident trends and training completion rates 	
3. Risk Management, Procedures and Documentation	<ul style="list-style-type: none"> Absence of a systematic risk management process specific to conveyors Outdated or generic procedures that do not reflect site-specific conveyor configurations and hazards Lack of documented safe systems of work for start-up, shutdown, clearing blockages, and emergency situations at a management level Inconsistent application of risk assessments for changes to conveyor operations or layouts Inadequate document control leading to use of superseded procedures or engineering information 	High	<ul style="list-style-type: none"> Implement a formal WHS risk management procedure that mandates identification, assessment and control of conveyor hazards, including periodic review Develop and maintain site-specific conveyor safe work procedures, including system start-up/shut-down rules, guarding standards, isolation governance, and emergency response protocols Ensure risk assessments (e.g. bow-tie, HAZOP, JSA at system level) are completed for all conveyors and stored in a controlled document management system Introduce a document control procedure ensuring only current versions of conveyor procedures, drawings, interlock matrices and OEM instructions are available and clearly marked Require risk assessments to be completed and reviewed as part of the management of change process for any modification to conveyor systems or operating parameters Schedule periodic formal review of conveyor risk assessments (e.g. every 2–3 years or after incidents) with participation from engineering, operations, maintenance and HSRs Link conveyor procedures to training and competency frameworks so that changes in procedures automatically trigger training updates 	Medium
4. Training, Competency and Induction	<ul style="list-style-type: none"> Personnel operating near or managing conveyors without adequate understanding of system hazards such as nip points, entanglement, stored energy and uncontrolled movement Supervisors and maintenance staff lacking competency in conveyor risk management, legislation and standards Contractors engaged in work near or around conveyors without verification of competencies or clear task expectations Inadequate induction for new workers and visitors regarding conveyor exclusion zones, emergency stops and escalation paths No structured refresher training leading to skill fade and normalisation of deviance from procedures 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium
5. Guarding, Engineering and Safety Systems	<ul style="list-style-type: none"> Inadequate or missing guards exposing nip points, rotating parts, return rollers and drive assemblies 	High	<p>[REDACTED]</p>	Medium

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	<ul style="list-style-type: none"> • Defeated or bypassed interlocks and safety circuits on conveyor guards • Emergency stop devices not appropriately located, not functional or not maintained • Insufficient design for stopping distances, leading to people remaining within danger zones after activation of emergency stops • Lack of physical barriers, fencing and signage to prevent unauthorised access to hazardous areas • Unmanaged changes to control logic or safety PLCs leading to latent failures in protection systems 		[REDACTED]	
6. Isolation, Lock-out/Tag-out and Energy Control Systems	<ul style="list-style-type: none"> • Inadequate isolation points or poor identification of energy sources (electrical, mechanical, hydraulic, stored energy) • Workers believing plant is isolated when energy sources remain connected due to systemic failures in the system • No standardised lock-out/tag-out (LOTO) system across the site leading to inconsistent practices • Inadequate supervision and verification of isolation before maintenance, cleaning or clearing blockages • Poor control of isolation keys and tags, creating risk of unauthorised re-energisation 	High	[REDACTED]	Medium
7. Inspection, Maintenance and Asset Management	<ul style="list-style-type: none"> • Lack of planned preventative maintenance program for conveyor components, leading to failures and unplanned breakdowns • Deferred or reactive maintenance culture increasing the need for high-risk 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> interventions such as clearing jams and belt tracking adjustments while under pressure • Unrecorded or ad hoc modifications to conveyors (e.g. removal of guards, addition of chutes) not captured in asset records or risk assessments • Failure to detect deterioration of structural supports, walkways, access platforms and guarding • Inadequate lubrication, belt alignment and tension management systems increasing the risk of belt failure or spillage 		[REDACTED]	
8. Housekeeping, Spillage and Work Environment Management	<ul style="list-style-type: none"> • Chronic spillage from conveyors creating slip, trip and manual handling hazards and obstructing access to emergency stops and isolators • Build-up of combustible dust or material around conveyors increasing fire risk • Poor lighting and visibility around conveyor walkway, transfer points and access platforms • Inadequate drainage or exposure to weather resulting in wet, slippery and unstable walking surfaces near conveyors • Uncontrolled storage of tools, parts and materials in conveyor access and egress routes 	Medium	[REDACTED]	Low
9. Traffic Management, Access and Egress	<ul style="list-style-type: none"> • Inadequate separation between conveyors, pedestrians and mobile plant routes • Restricted or unsafe access to conveyor components for inspection and maintenance (e.g. climbing over structures, ad hoc ladders) 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> • Insufficient emergency egress from elevated conveyor galleries or tunnels • Use of non-compliant walkways, ladders and platforms associated with conveyors • Lack of clear signage and demarcation of exclusion zones near conveyor loading and discharge points 		[REDACTED]	
10. Emergency Preparedness and Response	<ul style="list-style-type: none"> • Lack of clear emergency response plans specific to conveyor incidents such as entanglement, fire, spillage, belt breakage or structural failure • Workers not knowing locations or operation of emergency stops and pull-wires in an emergency • Delayed medical response due to poor communications or access issues in conveyor corridors, tunnels or elevated structures • Inadequate drills and scenario testing of conveyor-related emergency events • Failure to reset and verify safety systems correctly after emergency events 	High	[REDACTED]	Medium
11. Contractor and Vendor Management	<ul style="list-style-type: none"> • Contractors performing installation, maintenance or cleaning on conveyors without adequate understanding of site-specific risks and controls • Poor communication of isolation, permit and access requirements to external parties • Vendors modifying or servicing conveyors without alignment to site standards and management of change requirements 	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> Inadequate oversight of contractor activities leading to bypass of guarding or safety systems to meet time pressures 		[REDACTED]	
12. Incident Reporting, Investigation and Continuous Improvement	<ul style="list-style-type: none"> Under-reporting of conveyor incidents, near misses and equipment defects Superficial investigations that do not identify root causes or systemic failures Repeat conveyor incidents due to ineffective corrective and preventive actions Lack of trend analysis to identify emerging conveyor risk patterns 	Medium	[REDACTED]	Low

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 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.