

Sign Manufacturing

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. WHS Governance, Duty of Care & Legal Compliance	<ul style="list-style-type: none"> Inadequate understanding of PCBU primary duty under WHS Act 2011 leading to unmanaged systemic risks in sign manufacturing and installation Absence of a formal WHS management system aligned to AS/NZS ISO 45001 resulting in ad hoc safety practices Lack of documented WHS policy endorsed by senior management causing unclear safety expectations and priorities Poor consultation mechanisms with workers and health and safety representatives (HSRs) leading to unreported hazards and low participation Failure to monitor changes in WHS legislation, Australian Standards and Codes of Practice relevant to sign manufacturing and neon tube bending Insufficient due diligence by officers (directors and senior managers) in verifying WHS performance and resource allocation Inadequate incident notification and regulatory reporting procedures increasing legal non-compliance risk 	4A	<ul style="list-style-type: none"> Develop and maintain a documented WHS Management System aligned to WHS Act 2011, WHS Regulation and AS/NZS ISO 45001, approved and resourced by the Board or senior management Establish a written WHS Policy clearly outlining PCBUs and officer commitments, worker responsibilities and consultation expectations, communicated to workers and contractors Define WHS roles, responsibilities and authorities in position descriptions, contracts and induction materials, including delegated safety responsibilities for supervisors and managers Implement a structured WHS legal register covering applicable legislation, Australian Standards (e.g. AS/NZS 3000, AS/NZS 4801, AS 1100, AS 4999) and relevant Codes of Practice, with scheduled annual review Create formal WHS consultation arrangements such as elected HSRs, WHS Committees and toolbox talks with documented agendas and action tracking Implement an officer due diligence framework including regular WHS performance reporting, site safety walks, WHS risk reviews and verification of corrective actions Develop and maintain a documented WHS objectives and targets plan with measurable indicators (e.g. incident trends, training completion, inspection close-out timeframes) Introduce a mandatory process for statutory incident notification, including a written procedure and training for supervisors on notifiable incidents and preservation of incident scenes Conduct annual independent or third-party WHS system audits with action plans and clear accountability for close-out Ensure PCBU consultation, cooperation and coordination procedures are in place for multi-PCBU workplaces (e.g. shared premises, installation sites, contractors) 	3H
2. Risk Management, Change Management & Design Review	<ul style="list-style-type: none"> Lack of formal risk management process leading to inconsistent identification and control of hazards across sign design, neon tube bending and manufacturing activities Failure to integrate WHS risk assessment into design and engineering review of signs, frames, supports and electrical systems Poor management of change when introducing new sign materials, neon gases, machinery or processes resulting in unforeseen hazards 	4A	<ul style="list-style-type: none"> Implement a documented risk management procedure consistent with WHS Regulation Part 3.1, including steps for hazard identification, risk assessment, control selection using the hierarchy of control, and review Require formal WHS design risk assessments for all new or modified sign designs, including structural integrity, lifting points, mounting methods, electrical layouts and neon tube assemblies Establish a multidisciplinary design review process including engineering, WHS, electrical and installation representatives for complex or high-risk projects Implement a formal Management of Change (MOC) procedure for introduction of new materials, equipment, chemicals, neon gases, glass types or production methods, requiring risk assessment and sign-off before implementation Create standard risk assessment templates for recurrent sign manufacturing activities (e.g. electrical enclosures, neon transformers, large pylons, rooftop signs) with project-specific reviews 	2M

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	<ul style="list-style-type: none"> Inadequate pre-installation structural and electrical risk assessment for large or elevated signs Insufficient consideration of lifecycle risks including installation, maintenance, cleaning and eventual decommissioning of signs No documented criteria for risk acceptance leading to uncontrolled tolerance of high risks Failure to include human factors (fatigue, competency, ergonomics) in risk assessments 		<ul style="list-style-type: none"> Include lifecycle considerations (transport, installation, servicing, cleaning and disposal) in all design and project planning risk assessments Define and document risk criteria and risk matrix aligned with organisational risk appetite, including clear escalation thresholds for high and acute risks Train supervisors, designers and project managers in formal WHS risk assessment techniques and expectations Introduce periodic review of existing risk assessments triggered by incidents, near misses, equipment changes or updates to legislation and standards 	
3. Worker Competency, Licensing & Training Systems	<ul style="list-style-type: none"> Inadequate trade qualifications or licences for electrical work, neon work, high risk work and plant operation Lack of specific training in neon tube bending, handling of glass, high voltage transformers and associated fire and explosion risks Informal on-the-job training without documented competencies leading to inconsistent work quality and unsafe practices Failure to verify and record electrical licences and permits (e.g. electrical licences, EWP high-risk work licence dogging/rigger tickets) Insufficient induction for subcontractors, labour hire staff and contractors regarding site-specific WHS requirements No refresher training regime for critical risks (e.g. electrical safety, confined spaces where applicable, working at heights, manual handling of large signs) Poor supervisory skills among leading hands and forepersons in hazard identification and enforcement of WHS procedures 	4A	<ul style="list-style-type: none"> Develop a competency framework mapping all roles in sign manufacturing, neon tube bending and installation to required qualifications, licences and verified skills Maintain a central competency and licence register with expiry dates, evidence of qualifications and alerts for renewals Implement structured WHS and technical induction programs covering company policies, emergency procedures, specific hazards (electrical, glass, neon gases, manual handling), and safe systems of work Introduce formal training modules for neon tube bending covering heat application, glass handling, gas filling, transformer risks, emergency response and waste handling Require only appropriately licensed electricians and technicians to perform or supervise electrical connections, transformer work and neon power supply installation in accordance with WHS and electrical legislation Deliver periodic refresher training on high-risk topics including working at heights, electrical safety, hot work, manual handling of bulky signs, and use of plant such as EWPs and forklifts Provide leadership and safety management training for supervisors and leading hands focusing on hazard identification, incident reporting, coaching and enforcement of WHS rules Ensure training records are retained, regularly reviewed for currency, and linked to authorisations to operate specific plant or perform particular tasks Audit training effectiveness through observation, competency assessments and incident trend analysis, with remedial training where deficiencies are identified 	2M

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	<ul style="list-style-type: none"> Use of incompatible chemicals or storage near ignition sources such as open flames, gas burners and electrical transformers 		[REDACTED]	
7. Neon Tube Bending, Glass Handling & Thermal Hazards	<ul style="list-style-type: none"> Thermal burns from contact with high-temperature glass and gas burners during neon tube bending Lacerations and puncture injuries from handling and breaking glass tubing Inhalation of combustion by-products and heated materials when working close to burners and heated glass Improper setup or use of bending equipment leading to unstable glass, spills and breakages Lack of designated safe areas for glass storage and finished neon tubes leading to trip hazards and leakage Inadequate emergency response systems for burns, glass injuries and gas-related incidents in neon work areas Fatigue or poor posture during repetitive neon tube bending tasks contributing to musculoskeletal disorders 		[REDACTED]	2M
8. Manual Handling, Ergonomics & Materials Flow	<ul style="list-style-type: none"> Poorly planned manual handling of large, heavy or awkward signs, panels, glass tubes and frames leading to sprains, strains and chronic musculoskeletal disorders Inadequate use of mechanical aids (trolleys, cranes, vacuum lifters) or 	3H	[REDACTED]	2M

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	<p>unsuitable equipment for the size and fragility of signs and neon assemblies</p> <ul style="list-style-type: none"> • Suboptimal workstation and bench design in cutting, assembly and neon areas causing repetitive strain and awkward postures • Congested materials flow paths between storage, fabrication, neon bending and despatch increasing collision and trip risks • No formal manual handling risk assessments for repetitive or heavy tasks such as lifting pylons, cabinets or large acrylic panels • Lack of systems to control cumulative exposure to repetitive tasks for workers engaged in neon bending, vinyl application or small component assembly 		[REDACTED]	
9. Traffic Management, Loading, Transport & Delivery	<ul style="list-style-type: none"> • Uncontrolled interaction between pedestrians and vehicles (forklifts, utes trucks) in loading and unloading areas • Inadequate systems for securing large or awkward signs, frames and neon assemblies during loading and transport • Poor journey management for delivery and installation teams including fatigue, remote travel and time pressure • Lack of documented traffic management plan for shared premises or multi-tenant industrial complexes • Inadequate inspection and maintenance of fleet vehicles, including specialised sign transport trailers and racks • Insufficient contractor and driver induction regarding site-specific traffic routes, loading docks and securing arrangements 	3H	[REDACTED]	2M

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10. Contractor Management, Installations & Off-Site Works	<ul style="list-style-type: none"> Inadequate pre-qualification and control of contractors undertaking installation, electrical or structural work on signs Poor coordination of WHS responsibilities between PCBU and subcontractors at client sites leading to gaps in control measures Lack of verification that contractors have appropriate licences, insurances and SWMS for high-risk construction work (e.g. working at heights, EWPs, structural steel installation) Insufficient site-specific risk assessments for installation works, including traffic, public interface and access to mounting points Failure to manage public safety during installation or maintenance of signs near pedestrians, shoppers or roadways Poor communication of design limitations or installation requirements from manufacturing to installers 	4A	<p>[REDACTED]</p>	2M
11. Emergency Preparedness, Fire Safety & First Aid	<ul style="list-style-type: none"> Insufficient planning for emergency associated with neon tube bending (burns, gas leaks, glass shards and electrical fires in sign manufacturing) Inadequate firefighting equipment or incorrect fire extinguishers for electrical, gas and chemical fires Poorly communicated or unpractised emergency evacuation procedures for workshop and office areas Lack of first aid resources and trained first aiders appropriate to the risks of burns, lacerations and eye injuries Failure to plan for after-hours or lone work in neon and electrical areas 	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"> No coordination of emergency plans with neighbouring tenants or landlords in shared facilities 		[REDACTED]	
12. Health Monitoring, PPE Programs & Occupational Hygiene	<ul style="list-style-type: none"> Failure to monitor worker health for conditions linked to repetitive neon work, solvent exposure, noise or manual handling Over-reliance on PPE without addressing higher levels of control within the hierarchy of control Inconsistent provision, fit, maintenance and replacement of PPE such as eye protection, gloves, respirators and hearing protection Lack of noise and air quality assessments in manufacturing and neon tube bending areas Inadequate systems for reporting and managing early signs of strain, fatigue or respiratory irritation 	3H	[REDACTED]	2M
13. Workplace Environment, Housekeeping & Facility Safety	<ul style="list-style-type: none"> Poor workshop layout leading to congestion, blocked access and unsafe interaction between neon work, fabrication and storage areas Inadequate lighting, particularly at detailed workstations, inside sign cabinets and neon bending benches, increasing eye strain and error rates Poor housekeeping resulting in slip, trip and fall hazards from offcuts, broken glass, packaging and spills Insufficient control of noise, dust and vibration affecting communication, comfort and long-term health Lack of structured inspection regime for general facilities including racking, 	3H	[REDACTED]	2M

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	storage systems, emergency exits and amenities		[REDACTED]	
14. Incident Reporting, Investigation & Continuous Improvement	<ul style="list-style-type: none"> • Under-reporting of incidents, near misses and hazards due to fear of blame or lack of simple reporting mechanisms • Inadequate investigation of incidents related to neon tube bending, electrical work or manual handling leading to repeated events • Failure to identify systemic and organisational causes, focusing only on worker behaviour • Poor communication and follow-up of corrective actions resulting in incomplete implementation • Lack of analysis of incident trends and leading indicators (e.g. near misses, safety observations) to guide WHS improvements 	3H	[REDACTED]	1L

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.