Emergency Fire Response and Extinguisher Use

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	HIERARCHY OF CONTROLS
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	Review before work start	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	

Hierarchy of Controls (pyramid):
- **Elimination** — Remove the hazard.
- **Substitution** — Replace the hazard.
- Isolation — Isolate People from the hazard
- **Engineering** — Isolate the hazard
- **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 the 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. Fire Safety Governance, Legal Compliance and Consultation	• Lack of clear WHS due diligence by officers regarding fire safety obligations under WHS Act 2011 and WHS Regulations • Absence of a documented fire safety policy and emergency response framework endorsed by senior management • Inadequate consultation with workers and Health and Safety Representatives (HSRs) about fire and gas leak risks • Failure to align site emergency arrangements with Fire and Rescue NSW / QFES / CFA and local council requirements • Insufficient allocation of budget and resources for fire safety systems, maintenance and training • No process for monitoring changes in legislation, Australian Standards and codes of practice relating to fire safety	4A	• Establish a documented Fire and Emergency Management Policy that clearly defines responsibilities of officers, PCBUs, managers, workers and contractors in line with the WHS Act 2011 • Integrate fire and emergency management into the overall WHS Management System, including planning, consultation, risk assessment, implementation and review processes • Form an Emergency Planning Committee (EPC) with defined terms of reference, including HSRs and key stakeholders from operations, maintenance and safety • Undertake regular legal compliance reviews against WHS Act 2011, WHS Regulations, AS 3745 (Planning for emergencies in facilities), AS 1851 (Routine service of fire protection systems) and any jurisdictional fire safety requirements • Assign a competent Fire Safety Coordinator with authority and resources to implement and monitor the fire safety program • Incorporate fire safety performance indicators (e.g. inspection completion rates, training coverage, drill performance) into senior leadership WHS reporting • Implement a documented process for monitoring and updating legal and standards requirements, including periodic review by an external fire safety specialist	2M
2. Fire and Emergency Risk Assessment and Planning	• No formal fire risk assessment for the site, including warehouse operations and machinery fire risks • Failure to identify specific hazards such as flammable liquids, combustible dusts, LPG/pressurised gas systems and electrical switchrooms • Inadequate assessment of scenarios such as warehouse fires, machinery fires, gas leaks and low visibility due to smoke • Underestimation of fire load and potential fire spread due to storage layout, racking height and packaging materials • Lack of integration between fire risk assessment and broader business continuity or critical incident management planning	4A	• Conduct a formal fire and explosion risk assessment using a structured methodology (e.g. bow-tie analysis) that considers worst-case and credible scenarios including gas leaks and low-visibility smoke conditions • Document a site-wide Fire Safety Plan that addresses detection, alarm, evacuation, initial fire response, fixed fire systems, and interface with emergency services • Ensure the fire risk assessment includes specific evaluation of warehouse storage configurations, racking systems, ignition sources and separation distances • Include analysis of hazardous chemicals and gas systems, including isolation points, emergency shut-down procedures and required gas detection systems • Link the Fire Safety Plan with the organisation's business continuity and crisis management arrangements, including roles, communication and recovery strategies • Establish a formal process to review and update the fire risk assessment and Fire Safety Plan after any significant change (e.g. plant changes, layout modifications, new chemicals, change in headcount) • Retain records of all risk assessments and make them readily accessible to managers, emergency wardens and HSRs	2M

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	• Failure to review fire risk assessments after process, layout or occupancy changes			
3. Emergency Response Planning, Procedures and Coordination	• Absence of a comprehensive Emergency Response Plan (ERP) for fires and gas leaks • Emergency roles and responsibilities (Chief Warden, Area Wardens, First Aiders) not clearly defined or documented • Inadequate coordination between multiple tenants, contractors and visitors on shared sites • No documented procedures for dealing with fire outbreaks, warehouse fires, machinery fires or gas leaks, including when not to attempt extinguishment • Confusion during emergencies due to conflicting or outdated instructions in procedures and signage • Lack of clear criteria for partial versus full evacuation, shelter-in-place or area isolation	4A	• Develop and maintain a site-specific Emergency Response Plan that addresses fire, explosion, gas leaks and smoke emergencies in line with AS 3... • Define and document emergency roles (Chief Warden, Communications Officer, Floor/Area Wardens, First Aiders, Plant Operators) including authority to order evacuations and liaise with emergency services • Prepare scenario-based response procedures for warehouse fires, machinery fires, LPG or gas leaks and smoke-logged areas, including decision rules for safe evacuation versus limited fire attack • Develop clear communication protocols for notifying emergency services, internal stakeholders and neighbouring businesses or tenants • Ensure the ERP covers after-hours and weekend operations, including arrangements for shift work, contractors and lone workers • Regularly review and update the ERP following drills, incident debriefs, staffing changes or site modifications • Display concise emergency instruction diagrams and warden role summaries in control rooms, loading docks and warehouse offices	2M
4. Fire Detection, Alarm and Communication Systems	• Inadequate fire detection coverage in warehouses, plant rooms and concealed spaces • Fire alarm system not compliant with design requirements or not suitable for the type of occupancy and hazard • Failure of alarm notification systems (sirens, strobes, EWIS, paging, SMS) resulting in delayed evacuation • Staff uncertainty about how and when to operate manual call points and alarm panels • False alarms due to poorly maintained detectors or inappropriate detector types, leading to alarm fatigue and complacency • No redundancy in communication systems for use during power failures or system faults	4A		2M

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5. Means of Egress, Fire Escapes and Evacuation Routes	• Blocked or partially obstructed fire exits, warehouse aisles and egress paths due to stored goods or pallets • Insufficient number or width of exits for occupant load, especially in high-density warehouse or production areas • Exit doors locked, stuck or difficult to operate in an emergency • Inadequate emergency lighting and exit signage causing disorientation, particularly under low visibility due to smoke • Evacuation routes not designed for mobility-impaired workers or visitors • External assembly areas located too close to potential fire, smoke or gas leak sources	4A		1L
6. Firefighting Equipment Provision and Engineering Controls	• Insufficient number, type or rating of portable fire extinguishers for identified fire classes and warehouse hazards • Fire hose reels, hydrants and fixed fire-fighting systems (sprinkler, deluge, foam, gas suppression) not suited to the fire load or not functioning as designed • Inadequate access to firefighting equipment due to parked vehicles, stored materials or poorly planned layouts • Fixed fire systems isolated, shut off or impaired without appropriate controls and permits • No clear identification or signage of equipment types, limitations and fire classes (A, B, C, D, E, F) • Failure to integrate fixed fire systems with detection, alarm and plant shut-down systems	4A		2M

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7. Management of Flammable, Combustible and Gas Hazards	• Poorly controlled storage and handling of flammable and combustible liquids in warehouses and workshops • Inadequate segregation between ignition sources and flammable materials or gas lines • Improper storage and use of LPG cylinders, natural gas lines or other pressurised gases without appropriate isolation and detection systems • Lack of gas detection and alarm systems in enclosed or high-risk areas • No formal procedures for dealing with suspected or confirmed gas leaks • Inadequate control of hot work activities in areas with combustible or flammable materials	4A			2M
8. Warehouse Layout, Storage Systems and Fire Load Management	• High fire load in warehouse due to dense storage, combustible packaging and racking configurations • Inadequate separation between different hazard classes or incompatible materials • Racking layouts obstructing sprinkler discharge or blocking access to hose reels and hydrants • Uncontrolled accumulation of waste, pallets and combustible debris in warehouse and external yard areas • Lack of documented controls on stack height, aisle width and buffer zones near fire equipment and exits • Poorly managed seasonal or peak storage leading to overloading of racks	4A			2M

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	and non-compliant use of aisles for storage				
9. Machinery, Plant Fire Risk and Isolation Systems	• Inadequate identification and control of machinery fire risks, such as overheated bearings, hydraulic leaks, electrical faults and frictional heating • No dedicated fire suppression or detection on high-risk plant (e.g. conveyors, mobile equipment, processing machinery) • Lack of emergency stop, isolation and lock-out systems linked to fire detection or manual activation • Uncontrolled accumulation of combustible dust or product build-up within machinery and conveyors • No structured maintenance system for critical plant items that present significant fire risk • Inadequate guidance to workers about when it is safe to use extinguishers on machinery fires versus fire evacuation	4A			2M
10. Training, Competency and Emergency Drills	• Workers and supervisors competent in recognising fire and gas leak hazards or in raising the alarm promptly • Insufficient training in the limitations and correct selection of fire extinguishers and fixed fire systems • No formal warden training or inadequate numbers of trained wardens per area and shift • Irregular or poorly planned evacuation drills, resulting in confusion and delays during real events • High turnover or use of labour hire and contractors without appropriate induction in fire and emergency procedures	4A			2M

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	• Over-reliance on a small number of experienced individuals, creating vulnerability when they are absent			
11. Safe Use of Portable Extinguishers and Initial Fire Attack Controls	• Workers attempting to fight fires beyond the capacity of portable equipment or their competence • Incorrect selection of extinguisher type (e.g. using water on electrical or flammable liquid fires) • Lack of clear organisational policy about when not to attempt to extinguish a fire • No supervision or monitoring of extinguisher use, leading to depleted or missing units after events • Injury from misuse of extinguishers, such as back strain, slip hazards or inhalation of agents • Inadequate investigation and follow-up after extinguisher discharges, masking underlying causes	3H		1L
12. Management of Low Visibility, Smoke and Toxic Exposure	• Workers becoming disoriented in smoke-filled areas, particularly in large warehouses and plant spaces • Inhalation of toxic smoke or combustion products during evacuation or attempted firefighting • Inadequate emergency lighting and wayfinding for smoke-logged conditions • Lack of clear guidance on closing doors, compartmentation and use of smoke control systems • Improper use or reliance on respiratory protective equipment in uncontrolled fire environments • Failure to recognise early symptoms of smoke inhalation or toxic exposure, delaying medical treatment	4A		2M

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13. Coordination with External Emergency Services and Stakeholders	• Poor coordination with local fire and emergency services leading to delays or confusion during incidents • Site plans, hydrant information and hazardous materials data not readily available to attending fire crews • Adjacent businesses or neighbours not informed of significant fire and gas leak risks and emergency arrangements • Contractor emergency arrangements not aligned with site procedures, causing conflicting responses • No agreed protocol for handover of control from site personnel to fire services • Inadequate information sharing following incidents, impairing lessons learnt	3H		1L
14. Inspection, Testing, Maintenance and Asset Management of Fire Systems	• Fire detection, alarm, sprinkler and extinguisher systems not maintained to required standards • Unreported or unidentified defects in critical fire safety assets • Lack of asset register and service records for fire protection equipment • Maintenance activities inadvertently impairing fire safety systems (e.g. closed valves left shut, detectors covered and not reinstated) • Third-party service providers not competent or not working to Australian Standards • Failure to integrate fire system maintenance status into WHS risk reviews and management reporting	4A		2M

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15. Information, Signage, Documentation and Records Management	• Emergency information, evacuation diagrams and fire equipment signage missing, outdated or unclear • Workers and visitors unable to quickly locate exits, assembly areas or firefighting equipment in an emergency • Critical procedures, plans and risk assessments not controlled, leading to multiple conflicting versions • Lack of accessible documentation for training, induction and incident investigation purposes • Confusing or non-standard symbols and terminology used in emergency communications • Poor record keeping of drills, training, inspections and incidents, limiting trend analysis and continuous improvement	3H			1L
16. Monitoring, Incident Management and Continuous Improvement	• Failure to identify emerging fire and gas leak risks due to lack of systematic monitoring • Near misses and minor incidents not reported or investigated, leading to repeat events • Corrective actions from investigations and audits not implemented or tracked to completion • No performance review of emergency drills, leading to repeated procedural and behavioural issues • Inadequate management-of-change processes for new plant, processes, layouts or materials affecting fire risk • Complacency following long periods without significant fire incidents	3H			1L

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bluesafe.

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 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-of-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/forms-and-resources/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.