

Gas Cylinder Storage And Safety Risk Assessment

| | | |
|-------------------|--------|--------|
| 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: | | | | | | | | Notes on Hierarchy of Controls: | |
| 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. | | | | | | Remember to apply controls in the preferred order shown by the coloured pyramid: | |
| 3H | | Review and approve additional controls before task starts. Senior supervisor sign-off needed. | | | | | | 1. Eliminate | |
| 2M | | Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions. | | | | | | 2. Substitute | |
| 1L | | Proceed, following standard operating procedures. Monitor and keep records. | | | | | | 3. Isolate | |
| Consequence Scale: | | | | | | | | 4. Engineering | |
| Consequence | People (injury/illness) | | Project / Assets | | Compliance / Reputation | | 5. Administrative | | |
| Catastrophic | Fatality or permanent total disability | | project shutdown | | Significant regulator intervention; criminal prosecution | | 6. PPE | | |
| Major | Serious injury/illness (hospital > 5 days) | | critical delay | | Improvement notice; major media coverage | | Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable. | | |
| Moderate | Medical-treatment injury; lost-time > 1 day | | moderate delay | | Minor breach; adverse client comment | | aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8. | | |
| Minor | First-aid only, no lost time | | negligible delay | | Isolated non-conformance | | | | |
| Insignificant | No injury | | no schedule impact | | Deviation caught and corrected on site | | | | |

| 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. Preparation | Trip hazards, Incorrect labelling | 3H | <ul style="list-style-type: none"> Ensure clear pathways to storage area Use standardised labels on cylinders Regular housekeeping inspections Provide adequate lighting Train staff on correct labelling procedures Keep area free of obstructions Designate a specific storage area Use stable surfaces for cylinder storage Use non-slip footwear Implement emergency procedures | 2M |
| 2. Cylinder Transportation | Cylinder drop, Manual handling injuries | 4H | <ul style="list-style-type: none"> Use cylinder trolleys for transportation Train staff in manual handling techniques Inspect cylinders for integrity before moving Limit number of cylinders transported at once Ensure proper grip when handling Use PPE such as gloves Follow designated routes Conduct regular equipment maintenance Use buddy system for heavy cylinders Provide clear instructions for handling | 2M |
| 3. Loading and Unloading | Pinch points, Traffic accidents | 4A | <ul style="list-style-type: none"> Establish loading zones away from traffic Use barriers and signage Train employees on loading procedures Use mechanical aids to lift cylinders Restrict access to authorised personnel only Ensure proper PPE is worn Supervise all loading activities Conduct safety drills | 2M |

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| | | | Establish speed limits for vehicles Install convex mirrors for visibility | |
| 4. Storage | Fire hazard, Gas leaks | 4A | [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] | 3H |
| 5. Cylinder Inspection | Inadequate inspection, Equipment failure | 3H | [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] | 2M |
| 6. Handling Cylinders | Crushing injuries, Skin contact with cold surfaces | 4A | [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] | 2M |

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| | | | | |
| 7. Emergency Planning | Explosion risk, Inadequate response | 4A | | 2M |
| 8. Training and Competency | Human error, Insufficient knowledge | 3H | | 1L |
| 9. Use of Tools and Equipment | Tool failures, Injury from improper use | 3H | | 2M |

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| | | | | |
| 10. Maintenance Activities | Exposure to gas leaks, Maintenance-related accidents | 4A | | 2M |
| 11. Disposal of Cylinders | Environmental contamination, Injury from improper handling | 3H | | 2M |
| 12. Identifying and Responding to Gas Leaks | Inhalation of toxic gases, Chemical burns | 4A | | 2M |

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| 13. Communication and Reporting | Delayed incident response, Incomplete hazard reporting | 3H | | 1L |
| 14. Auditing and Monitoring | Missed safety violations, Inefficient corrective actions | 4A | | 2M |
| 15. Emergency Equipment Maintenance | Malfunctioning equipment, Delayed emergency response | 4A | | 2M |

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| | | | | |
| 16. Personal Protective Equipment (PPE) | Insufficient protection, Improper use | 3H | | 1L |
| 17. Signage and Labelling | Misidentification of hazards, Confusion during emergencies | 3H | | 1L |
| 18. Contractor Management | Inconsistent safety standards, Unsupervised tasks | 4A | | 2M |

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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 IF 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 2017

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) Regulations 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>

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.