# Working Near Overhead Power Lines (No Go Zones)

| | | |
|---|---|---|
| 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: |

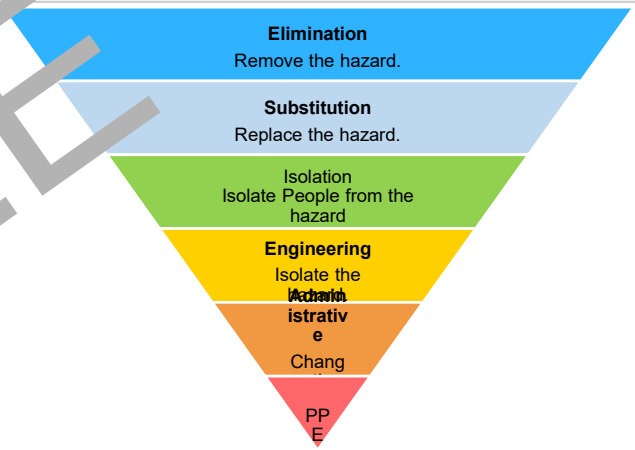
## CLIENT OR PRINCIPAL CONTRACTOR DETAILS

| | |
|---|---|
| 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 |
|---|---|---|---|---|---|---|---|
| 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 | Rev before work |
| UNLIKELY | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 4 ACU | 2M MO RATE | Ensure control measures in place. |
| RARE | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 3 H | 1L LOW | Monitor and keep records. |

HIERARCHY OF CONTROLS






### Risk Rating & Required Action:

| | |
|---|---|
| **4A** | Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required. |
| **3H** | Review and approve additional c rols b ask arts. Senior supervisor sign-off needed. |
| **2M** | Ensure all nominated controls are in ace and effe ive. 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. Organisational WHS Governance & Legal Compliance | • Lack of clear organisational policy for working near overhead power lines and electrical installations<br>• Failure to incorporate WHS Act 2011 and relevant WHS Regulations / Codes of Practice into company procedures<br>• Inadequate understanding of statutory 'No Go Zone' requirements and network operator rules<br>• Absence of documented responsibilities and accountabilities for managing electrical proximity risks<br>• Poor oversight of contractors' compliance with electrical safety and no-go-zone requirements<br>• Inadequate review of incidents, near misses and regulatory changes related to overhead electrical hazards | 4A | • Develop and implement a company Electrical Proximity & No Go Zone Policy aligned with WHS Act 2011, WHS Regulations, and relevant state/territory electrical safety legislation<br>• Define and document roles, responsibilities and authorities for managing risks associated with overhead and public utility lines (e.g. PCBU, officers, line managers, project managers, supervisors)<br>• Formally adopt and reference relevant Codes of Practice, Australian Standards (e.g. AS/NZS 3000, AS/NZS 4836 where applicable) and electricity network operator guidelines in WHS management system<br>• Establish a governance process to review legal and industry changes (e.g. regulator safety alerts) and update policies and procedures accordingly<br>• Include electrical proximity risks in corporate risk register and regularly review at WHS committee / leadership meetings<br>• Implement contract management requirements that mandate evidence of compliant no-go-zone systems, clearances and procedures prior to engagement<br>• Require management review of serious electrical incidents and near misses, with documented lessons learnt and system changes | 3H |
| 2. Planning, Design & Engineering of Work Near Power Lines | • Work methods designed without consideration of safe approach distances or no-go-zones<br>• Failure to eliminate the need to work near overhead power lines through redesign or isolation<br>• Inadequate engineering assessment of plant reach envelopes and crane operating radii relative to services<br>• Poor integration of overhead electrical hazards into project design, constructability and temporary works planning<br>• Unclear or missing documentation for relocation, insulation, or isolation of lines by the network operator | 4A | • Incorporate overhead electrical hazard assessment into early project design, tendering and constructability reviews<br>• Prioritise elimination controls, such as design changes to avoid working under or near power lines, use of underground supply, or relocation of lines before work commences<br>• Require formal engineering review of proposed plant and equipment reach (cranes, EWPs, tipper trucks, excavators, concrete pumps) against known overhead line locations and voltages<br>• Ensure design and temporary works documentation specifies safe clearances, barriers, and plant exclusion zones relative to overhead electrical installations<br>• Document and obtain formal confirmation from the electricity network operator regarding any line isolation, relocation, de-energisation or installation of physical barriers/insulation<br>• Require design sign-off that demonstrates compliance with jurisdictional no-go-zone requirements prior to mobilisation<br>• Embed electrical hazard controls into project execution plans, lift studies, traffic management plans and construction staging plans | 2M |
| 3. Site Identification, Surveying & Services Location | • Failure to identify all overhead power lines, service drops and public utility lines before commencing work<br>• Unreliable or outdated plans and drawings leading to inaccurate awareness of electrical infrastructure | 4A | • Implement a mandatory pre-start site survey protocol covering all overhead and adjacent electrical infrastructure for each new workfront<br>• Use current network operator plans, aerial imagery and utility records in conjunction with physical inspection by a competent person | 2M |

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| | • Inadequate site survey of overhead assets in approach paths, slewing areas and access routes for plant<br>• Hidden or obscured lines due to vegetation, structures, or lighting conditions<br>• Poor coordination of Dial Before You Dig / Before You Dig Australia information with actual site conditions | | • Require use of a formal Overhead Service Identification Checklist for all projects involving mobile plant, cranage, tall loads or work at height<br>• Ensure discrepancies between utility plans and site conditions are escalated to the PCBU and clarified with the utility provider before commencing high risk work<br>• Prohibit work that could encroach on unknown or unverified overhead lines until risk is assessed and controls verified<br>• Record and map the location, voltage (where known) and ownership of overhead lines in site induction materials, traffic plans and lift plans<br>• Review visibility of lines under different conditions (e.g. sunrise/sunset, night work, bad weather) and plan lighting or work accordingly | |
| 4. No Go Zone Rules, Procedures & Documentation | • Absence of formalised no-go-zone procedures for working near overhead power lines<br>• Workers and supervisors unaware of minimum approach distances for different voltage levels of lines<br>• Generic SWMS not reflecting actual site-specific no-go-zones and control measures<br>• Confusion between network operator rules and internal procedures, leading to inconsistent application<br>• Poor control of permit-to-work or authorisation systems for work within designated exclusion zones | 4A | [redacted] | 2M |
| 5. Management of Contractors, Subcontractors & Utility Providers | • Contractors undertaking work near overhead lines without adequate systems or authorisations<br>• Gaps between principal contractor and subcontractor procedures for electrical proximity<br>• Unclear coordination with electricity network operators for isolations, shutdowns or line relocations | 3H | [redacted] | 2M |

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| | • Inadequate verification of licences, high-risk work authorisations and competency of external operators (e.g. crane crews, EWP operators)<br>• Commercial pressures on contractors leading to erosion of safety margins and clearances | | [redacted] | |
| 6. Plant, Equipment Selection & Engineering Controls | • Use of unsuitable plant with excessive reach or uncontrolled movement near overhead lines<br>• Lack of engineering safeguards such as slew limiting, height limiting or proximity detection systems<br>• Inadequate plant design or guarding to manage arcing and step-and-touch potential<br>• Failure to consider compatibility of components (e.g. low booms, attachments, tipper bodies, concrete pump masts) during selection<br>• Poor integration of safety systems when hiring or leasing equipment | | [redacted] | 2M |
| 7. Operator Competency, Licensing & Training | • Operators unaware of the electrical risks associated with overhead power lines and no-go-zones<br>• Inadequate formal training or licensing for crane, EWP, excavator, tipper or other plant operators<br>• Supervisors lacking competence to oversee work near electrical installations<br>• Complacency or over-reliance on experience without understanding arcing distances and induced voltages | 3H | [redacted] | 2M |

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| | • Lack of refresher training leading to drift from correct procedures | | [redacted] | |
| 8. Site Induction, Communication & Information Sharing | • Workers unaware of the presence and location of overhead power lines in their work area<br>• Critical information about electrical hazards not communicated to all shifts, visitors and new starters<br>• Language barriers or low literacy leading to misunderstanding of no-go-zone instructions<br>• Poor communication between plant operators and ground personnel when operating near lines<br>• Lack of coordination between multiple work groups (e.g. construction, utilities, traffic management) working near the same lines | 3H | [redacted] | 2M |
| 9. Physical Separation, Exclusion Zones & Signage | • Uncontrolled encroachment into no-go-zones by mobile plant, vehicles or loads<br>• Inadequate or poorly maintained physical barriers and warning systems around overhead lines<br>• Lack of clear demarcation of safe travel routes and set-up positions for cranes and other plant<br>• Confusing or missing signage, particularly in shared access ways or public interfaces<br>• Workers or the public entering danger zones unintentionally due to poor layout | 4A | [redacted] | 2M |

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| 10. Spotters, Supervision & Work Monitoring | • Plant operators losing situational awareness of overhead lines during complex or repetitive tasks<br>• Inadequate supervision of high-risk activities near overhead electrical installations<br>• Spotters not properly trained, authorised or dedicated to the role<br>• Failure to intervene when exclusion zones are being approached or breached<br>• Insufficient monitoring of after-hours or remote works near power lines | 3H | [redacted] | 2M |
| 11. Change Management, Non-Routine & Emergency Work | • Unplanned changes to work scope or methods that introduce new proximity risks to overhead lines<br>• Time pressure during breakdowns, storms or emergency repairs leading to bypassing of controls<br>• Non-routine tasks (e.g. recovering bogged plant, emergency crane lifts) performed without updated assessment<br>• Temporary works (e.g. scaffolding, staging, demolition) creating new encroachments into safe distances<br>• Inadequate communication and approvals for after-hours work around electrical installations | 3H | [redacted] | 2M |
| 12. Environmental Conditions & Work Scheduling | • Adverse weather (wind, rain, lightning) increasing the risk of contact or arcing to overhead lines<br>• Poor visibility due to darkness, glare, fog or dust obscuring overhead hazards and signage | 3H | [redacted] | 2M |

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| | • Thermal expansion or sagging of power lines changing actual clearances from design assumptions<br>• Work scheduling leading to fatigue, distraction or rushed operations near electrical hazards<br>• Seasonal vegetation growth or temporary structures altering safe distances to lines | | [redacted] | |
| 13. Emergency Preparedness, Response & Recovery | • Workers and supervisors unprepared to respond safely to electrical contact or arcing incidents<br>• Inadequate emergency procedures for plant entangled in or contacting overhead lines<br>• Lack of coordination with emergency services and network operators in the event of an incident<br>• Insufficient first aid, rescue equipmen or training for shock, burns and induced voltages<br>• Failure to secure e area post-incident, exp ng others t step-and-touch pot ial | 3H | [redacted] | 1L |
| 14. Inspection, Maintenance & Verification of Controls | • Degradation or failure of engin ing and administrative controls over time<br>• Unverified or poorly maintained height limiting devices, alarms and interlocks<br>• Infrequent inspection of barriers, signage and markings leading to ineffective controls<br>• Lack of systematic review of plant maintenance records for equipment used near power lines<br>• Failure to detect and correct non-conformances in no-go-zone management | 3H | [redacted] | 2M |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
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| | | | [redacted] | |
| 15. Fatigue, Human Factors & Behavioural Safety | • Operator fatigue and reduced vigilance increasing the chance of encroaching on no-go-zones<br>• Distraction from mobile phones, radios or competing job demands during critical manoeuvres<br>• Risk-taking behaviours and normalisation of deviation from clearance distances over time<br>• Inadequate consideration of cognitive load when planning complex tasks around multiple hazards<br>• Poor reporting culture leading to under-reporting of near misses involving overhead lines | 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

**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

**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/forms-and-resources/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

**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.

**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

**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

**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