

Telecommunications Tower Work

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. Governance, WHS Leadership & Legal Compliance	<ul style="list-style-type: none"> Inadequate understanding of duties under WHS Act 2011 and WHS Regulation for high risk construction work and tower work Lack of clear WHS objectives, KPIs and accountability for telecommunications tower activities Insufficient integration of WHS requirements into business planning, project approvals and tender processes Inadequate consultation with workers, health and safety representatives (HSRs) and subcontractors on tower-specific risks Failure to monitor changes in Australian Standards, industry codes of practice and OEM guidance relating to towers, antennae and satellite dishes Weak incident reporting and investigation culture leading to repeat systemic failures Poor coordination of WHS responsibilities when multiple PCBUs share a tower or compound 	4A	<ul style="list-style-type: none"> Establish and maintain a WHS management system aligned with AS/NZS ISO 45001, explicitly addressing telecommunications tower work, climbing activities and satellite/antenna installation Define and document WHS roles, responsibilities and due diligence obligations for officers, managers, supervisors and project leads overseeing tower work Embed WHS legal compliance checks into project initiation, design review and contractor engagement processes for tower-related work Implement structured consultation mechanisms (HSR meetings, toolbox forums, design reviews) specifically covering tower climbing, long pole handling and remote area work Develop legal and standards register for telecommunications tower operations and review it at least annually incorporating relevant Safe Work Australia and state regulator guidance Implement a formal incident and near-miss reporting, investigation and corrective action system that captures tower-specific events (e.g. dropped objects, near falls, RF overexposure) Establish PCBU-to-PCBU coordination agreements for shared tower sites, clearly allocating WHS responsibilities, emergency arrangements and permit controls 	3H
2. WHS Risk Management & Planning for Tower Work	<ul style="list-style-type: none"> Absence of systematic risk assessment processes for tower, pole climbing and antenna/satellite dish installation activities Risk assessments focusing only on physical tasks and not underlying management, design and environmental factors Failure to consider site-specific issues such as RF exposure, proximity to powerlines, unstable ground or extreme weather conditions Inadequate consideration of simultaneous operations (SIMOPS) where multiple contractors work on or around the same tower 	4A	<ul style="list-style-type: none"> Implement a formal WHS risk management procedure consistent with WHS Regulation, requiring documented risk assessments for all telecommunications tower projects and maintenance programs Mandate that project risk assessments cover system-level risks such as design suitability, access systems, contractor interfaces, RF management and emergency response capability Require pre-mobilisation site risk assessments that consider ground conditions, structural integrity, powerline clearances, RF exclusion zones, wildlife and environmental extremes Adopt a SIMOPS planning process for shared tower sites, ensuring coordination of work sequences, access control and communication protocols between all parties Implement a management of change (MOC) process for modifications to tower structures, antenna/satellite dish layouts, cable routes, access systems and lifting arrangements Require periodic review and revalidation of SWMS and risk assessments for high-risk tower work, especially after incidents, near misses or technical changes 	2M

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	<ul style="list-style-type: none"> Poor change management when tower configurations, antenna types, loads or access methods are modified Over-reliance on generic Safe Work Method Statements (SWMS) that are not tailored to complex or remote tower sites 			
3. Design, Engineering & Structural Integrity of Towers	<ul style="list-style-type: none"> Original tower design not adequate for current or future antenna, satellite dish and cabling loads Inadequate engineering assessment before attaching new dishes, antennas or long extension pole systems Poorly designed mounting brackets, dish supports or pole clamps leading to structural failure or dropped components No process to confirm structural condition of existing towers, guy wires, foundations and anchor points prior to work Use of non-compliant or incompatible components and fasteners that degrade structural performance Failure to consider dynamic wind loading, ice loading or vibration on tall structures and mounted equipment 	4A	<ul style="list-style-type: none"> Establish an engineering governance framework requiring all tower designs and modifications to be certified by a suitably qualified structural engineer in accordance with relevant Australian Standards Maintain up-to-date structural drawings, design registers and as-built documentation for each telecommunications tower Implement an engineering review and approval process for all new antenna, satellite dish and extension pole mounting arrangements, including wind and load calculations Develop and enforce specifications for approved mounting systems, fasteners and corrosion protection suitable for local environmental conditions Implement a scheduled structural inspection and testing program for towers, guy wires, foundations and mounts, with defined criteria for repair or de-rating Ensure that any temporary installations (e.g. test dishes, trial equipment) are subject to the same engineering review and sign-off as permanent fixtures 	2M
4. Access Systems, Fall Protection & Dropped Object Management	<ul style="list-style-type: none"> Inadequate design, inspection and maintenance of fixed ladders, climbing pegs, platforms and guard rails Insufficient planning for fall arrest, fall restraint and rescue on tall towers and poles Failure of anchor points, lifelines or rail systems due to poor specification or inadequate inspection regimes Lack of systems for tool tethering and material handling at height, leading to dropped objects Reliance on improvised access methods or non-certified long extension poles used beyond design limits 	4A	<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 systematic control of exclusion zones around tower base to protect persons from falling objects 		[REDACTED]	
5. RF (Radiofrequency) Exposure & Electromagnetic Environment Management	<ul style="list-style-type: none"> Inadequate assessment of RF exposure levels on towers and rooftop sites for workers and the public Lack of clearly defined RF exclusion zones around transmitting antennas and satellite dishes Poor coordination between carriers, site owners and contractors when transmission power is changed or new services are added Insufficient information provided to workers about RF hazards, power-down requirements and lock-out procedures Inaccurate or outdated RF signage leading to misinformed access decisions Failure to control cumulative exposure from multiple co-located transmitters 	4A	[REDACTED]	2M
6. Plant, Equipment & Inspection Systems (Including Long Extension Poles)	<ul style="list-style-type: none"> Use of non-compliant climbing equipment, harnesses, ladders, winches or lifting devices Lack of formal inspection, testing and tagging systems for critical safety equipment and lifting plant Inadequate maintenance or calibration of RF monitors, anemometers or other safety-related instruments Improvised use of long extension poles and handling devices without engineering verification of loads and stability No process to manage defective equipment, leading to continued unsafe use Insufficient control of plant brought to site by subcontractors 	4A	[REDACTED]	2M
7. Contractor Management &	<ul style="list-style-type: none"> Engagement of contractors without appropriate tower climbing, rigging or RF competencies 	4A	[REDACTED]	2M

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Competency for Tower Work	<ul style="list-style-type: none"> Inadequate prequalification processes that focus on price rather than WHS capability Lack of verification of licences, high-risk work tickets and height safety training currency Poor supervision arrangements for new or inexperienced climbers and riggers Contractual arrangements that incentivise unsafe work speeds or discourage reporting of issues Inconsistent WHS expectations across different contractors working on the same tower 		[REDACTED]	
8. Training, Competency & Fitness for Work	<ul style="list-style-type: none"> Workers performing tower climbing or dish installation without formal training in height safety and rescue Insufficient competency in handling long extension poles, lifting systems and complex antenna configurations Lack of refresher training resulting in skill fade, particularly for infrequent tower climbers Inadequate medical and fitness assessments for physically demanding climbing tasks Poor understanding of RF exposure risks, weather impacts and remote work survival No structured process to verify competency of new starters, labour hire or subcontracted personnel 	4A	[REDACTED]	2M
9. Emergency Preparedness, Rescue & Remote Area Response	<ul style="list-style-type: none"> Absence of site-specific rescue plans for persons suspended on towers or poles Inadequate provision of rescue equipment or lack of trained rescuers on site Delayed emergency response due to remote locations, access limitations or poor communications 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> Insufficient planning for medical emergencies such as heat stress, cardiac events or RF exposure incidents at height Lack of coordination with local emergency services regarding tower access and rescue constraints Failure to consider night-time or low-visibility conditions in rescue planning 		[REDACTED]	
10. Journey Management, Site Access & Remote Communications	<ul style="list-style-type: none"> Long travel distances to remote tower sites leading to driver fatigue and increased crash risk Poorly managed access tracks with steep gradients, unstable surfaces or flood/erosion damage Inadequate communication systems remote areas where mobile coverage limited or absent No formal process for check-in/check-out, resulting in delayed response to incidents Unauthorised access to tower compounds by the public or non-inducted personnel Lack of planning for severe weather, bushfire, lightning or sudden environmental changes affecting access and egress 	3H	[REDACTED]	2M
11. Work Planning, Scheduling & Fatigue Management	<ul style="list-style-type: none"> Compressed work programs and unrealistic timeframes that encourage shortcuts on tower work Extended shifts, night work and irregular hours leading to fatigue for climbers and drivers Inadequate planning for rest breaks, hydration and heat stress management during physically demanding climbing tasks 	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> Insufficient consideration of cumulative fatigue from travel, manual handling and mental load associated with complex technical tasks Pressure to complete antenna or satellite dish installations during adverse weather windows to meet client deadlines 		[REDACTED]	
12. Manual Handling, Materials Logistics & Handling of Long Extension Poles	<ul style="list-style-type: none"> Poor planning of materials delivery leading to excessive manual handling of heavy antennas, dishes and mounting hardware Inadequate systems for lifting and positioning components at height, relying on manual force rather than mechanical advantage Unsafe handling of long extension poles in high winds, near powerlines or in congested tower compounds No standardised packaging, lifting points or rigging methods for large dishes and antenna arrays Inappropriate storage of materials on platforms or ladders increasing trip and fall risks 	3H	[REDACTED]	2M
13. Environmental, Weather & Site Condition Management	<ul style="list-style-type: none"> Exposure to extreme heat, cold, wind, rain or lightning during tower climbing or antenna installation tasks Unstable ground conditions around towers, including erosion, subsidence or concealed voids Wildlife hazards such as snakes, insects or birds nesting on towers and platforms Inadequate assessment of lightning protection and earthing systems before working on or near masts and dishes Failure to consider environmental protection obligations (e.g. spill control, vegetation disturbance) during access and construction 	3H	[REDACTED]	2M

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			[REDACTED]	
14. Documentation, Information Management & Site Records	<ul style="list-style-type: none"> • Outdated or missing tower drawings, load charts and RF plans leading to incorrect assumptions during work planning • Poor control of SWMS, permits and risk assessments resulting in use of superseded documents on site • Incomplete recording of inspections, structural assessments, RF surveys and maintenance actions • Lack of centralised system for storing and accessing site information for remote towers • Inadequate handover of information between project phases or between different PCBUs sharing the tower 	3H	[REDACTED]	2M
15. Consultation, Communication & Worker Engagement	<ul style="list-style-type: none"> • Limited involvement of tower workers and contractors in WHS decision making and risk control decisions • Ineffective communication of changes to work methods, RF conditions or structural status of towers • Language, literacy or cultural barriers affecting understanding of safety information and instructions • Lack of feedback loops to capture and act on workers' suggestions or concerns about tower safety • Fragmented communication between office-based planners and field crews resulting in misaligned expectations 	3H	[REDACTED]	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 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.