

Scope of Work Activity Covered by this Work Method Statement

Site:

This Work Method Statement outlines the main hazards and risks associated with

Electrical Installation

Instructions for Safe Work Method Statements

A Safe Work Method Statement (SWMS) is a document that sets out the work activities to be carried out at a workplace, the hazards arising from these activities and the measures to be put in place to control the risks. All work must be carried out in accordance with this SWMS. This SWMS must be kept and be available for inspection.

Applicable High Risk Construction Work Activities (highlighted). A SWMS is required for all high risk work activities.

A risk of a person falling more than 2 M	Demolition of a load-bearing structure.	Work on a tele-communications tower
Work in or near a shaft or thrench with an excavated depth over 1.5m or in a tunnel	Temporary load-bearing support structures for structural installations or repairs	Work on or near a pressurised gas distribution mains or piping
Work on or near chemical, fuel or refrigerant lines	Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians	Work on or near energised electrical installations or services
Likely to involve disturbing asbestos	Work in or near a confined space	Work in an area with movement of powered mobile plant
Work in areas with artificial extremes of temperature	Work in or near water or other liquid that involves a risk of drowning	Work in an area that may have a contaminated or flammable atmosphere
Use of explosives	Tilt-up or precast concrete elements	Diving work

Personal Protective Clothing & Equipment (PPE) Required



**LONG SLEEVE
SHIRT AND
TROUSERS
MUST BE WORN**

Safety Boots		Protective Gloves	
Safety Glasses		High Visibility Clothing / Vests	
Hearing Protection		Hard Hat	

Required Qualifications/Verifications

Qualification	Requirement	Qualification	Requirement
WHSQE Induction	All Personnel	Licensed Electrician	As Required
Construction Industry White Card	All Personnel		

Required Qualifications/Verifications

Plant and equipment used on site includes, but is not limited to:

Plant and/or Equipment	Inspection and maintenance checks required	Plant and/or Equipment	Inspection and maintenance checks required
Mobile Equipment	Safety check prior to use. Maintenance & Safety Checks in accordance with Manufacturers Specifications	Electrical Equipment	Tag & Test. Safety check prior to use. Maintenance & Safety Checks in accordance with Manufacturers Specifications
Ladders	Safety check prior to use	Extension Leads	Tag & Test Safety check prior to use
Lifting Equipment	Safety check prior to use	Hand Tools	Safety check prior to use. Maintenance & Safety Checks in accordance with Manufacturers Specifications

Inspections of plant to be carried out before commencement of work, as per listed hazard controls for pre-start checks.

SWMS Develop By: Mark Veenendaal

SWMS Approved By: Carlos Sanchez-Kirby

SWMS Consulted With: Site Staff

**Person Responsible for ensuring
compliance with this SWMS**

Formal communication of Site Safety Rules will occur primarily in three ways:

1. As part of the implementation of this Work Method Statement, all parties in the workgroup to be present for a brief meeting.
2. As new person(s) (employees, subcontractors, etc.) enter the site for the first time they will be briefed on the Site Safety Rules that they must comply with and sign induction form stating that they are aware of the site specific hazards.
3. At regular 'toolbox' meetings – employees will be reminded of the safety site rules, new and existing potential hazards and also constantly reminded of the importance of striving for a hazard free work place.

RISK RATING MATRIX

Consequence →	Low (C1) No Injury most probable outcome; Losses in <\$500; Environmental impact small localised and contained;	Minor (C2) FAI most probable outcome; Losses in excess >\$500 <\$15,000; Environmental impact, contained impact requiring minor remedial action.	Moderate (C3) MTI or LTI most probable outcome; Losses in excess >\$15,000 <\$50,000; Environmental impact, medium term contained impact requiring considerable remedial action.	Major (C4) LTI most probable outcome; Losses in excess >\$50,000 <\$100,000; Environmental contamination off-site, considerable remediation required	Critical (C5) A fatality(s) most probable outcome; Losses in excess >\$100,000; Irreversible/irreparable environmental contamination.
Likelihood ↓					
Rare (L1) A similar incident is unlikely to occur again	L2	L3	L4	M5	M6
Unlikely (L2) A similar incident could occur in the next 5 years	L3	L4	M5	M6	H7
Possible (L3) A similar incident could occur in the next 1 year	L4	M5	M6	H7	H8
Likely (L4) A similar incident could occur in the next 6 months	M5	M6	H7	H8	E9
Almost certain (L5) A similar incident could occur in the next 1 month	M6	H7	H8	E9	E10
Risk Score	Risk Rating	Required Action		Hierarchy of Controls	
2-4	Low risk	Manage and Monitor by routine internal procedures.		1. Elimination	Complete elimination of risk
5-6	Moderate risk	Specific monitoring or procedures to be implemented. Management responsibility to be specified and strategies implemented as part of day-to-day activities.		2. Substitution	Replacement of material, process, substance, etc.
7-8	High risk	Immediate action to be implemented by Operations Manager and HSEQ Manager. GM to be notified		3. Engineering	Designing risks out or isolation of risks
9-10	Extreme risk	Immediate action to be implemented; this level of risk needs detailed research and planning by Operations Manager and HSE Q manager. GM must be notified.		4. Administrative	Adjusting the time or conditions of risk exposure, including training options
				5. Personal protective equipment	Provision of PPE where other options are not practicable

Definition of Energised Work

Definition of Energised Work:

Energised, 'live' and work on or near are all terms that mean the same thing

Energised work is any situation that involves electrical tasks performed near live conductors or components, posing risks of electric shock and arc flash hazards. This includes situations where workers or their tools or materials connected to the body are within 500mm of exposed energised, or unverified electrical parts. However, it does not apply if these parts are adequately shielded or protected to prevent accidental contact.

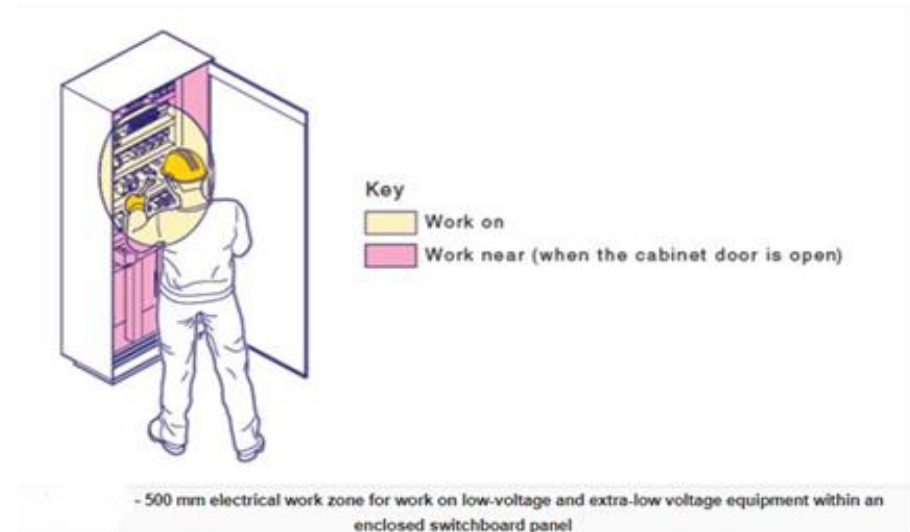
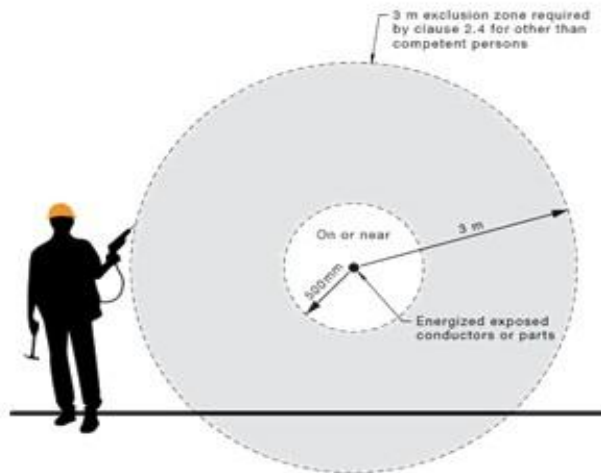
Electrical Work on Energised Equipment

The regulations surrounding electrical work on energised equipment vary across jurisdictions—including NSW, ACT, QLD, NT, SA, TAS, CTH, VIC, and WA.

General Requirement

Electrical work on energised equipment should only be conducted when absolutely necessary for health and safety or when no viable alternatives exist. The following criteria must be satisfied:

- The work is essential for maintaining the operation of life-saving or critical equipment while it remains energised.
- Energisation of the electrical equipment is necessary to ensure the work is performed correctly and to verify that the equipment is functioning as intended.
- The work is needed to test that the equipment is de-energised.
- There are no reasonable alternative methods available to carry out the work.



Relevant Legislation, Standards & Codes of Practice relating to the work:

NSW Work Health & Safety Act November 2011

NSW Work Health & Safety Regulations November 2025

NSW Code of Practice - First Aid in the Workplace January 2020

NSW Code of Practice - Hazardous Manual Tasks August 2019

NSW Code of Practice - How to Manage Work Health and Safety Risks August 2019

NSW Code of Practice - Managing Electrical Risks August 2019

NSW Code of Practice - Managing Noise & Preventing Hearing Loss at Work December 2022

NSW Code of Practice - Managing the Risk of Falls at Workplaces August 2019

NSW Code of Practice - Managing the Risks of Hazardous Chemicals in the Workplace December 2022

NSW Code of Practice - Managing the Risks of Plant in the Workplace August 2019

NSW Code of Practice - Managing the Work Environment and Facilities August 2019

NSW Code of Practice - Work Health and Safety Consultation, Cooperation and Coordination August 2019

AS/NZS 3000:2018 Electrical Installations (Wiring Rules)

National Electricity Law and Rules

Relevant State Government Electricity Regulations

Relevant State Government Electricity Regulations

Safety Fundamentals

Start Right	Stop Right
This is an informal process in which individual or a group to pause and take time to consider potential WHS aspects of the work activities prior to them being performed. This hazard management practice is not recorded and must be undertaken prior to commencing any task. In a team environment a START Right meeting would be undertaken at the start of a new job, daily or after a significant change. Stop – step back and observe Think – through the tasks Assess – the Hazards, Pathways & Impacts Review - and document findings if required Talk - it through and complete the task The START Right can be performed on its own (without other formal pre-start HRA) when: •The task is identified as low risk high frequency (LRHF), low risk low frequency (LRLF) and medium risk high frequency (MRHF) •The task is performed regularly or frequently •Experienced, qualified personnel perform the task •No significant or unusual hazards are involved •The work is straightforward with little complexity for the worker •Occurs in a predictable environment •Has a history of few and/or minor injuries, incidents or near misses	Everyone working under this SWMS is authorised and has a responsibility to stop and challenge unsafe acts or conditions any time they see or feel themselves or others exposed to unacceptable risk. Stop – step back and observe Think – through the tasks Obey and respect instructions Prevent reoccurrence - and document findings if required Situations that may initiate the use of STOP Right include: •Anytime anyone does not know or understand their tasks or responsibilities. •When a new hazard is identified that was not expected or anticipated, or the hazards are not understood. •The level of risk associated with the hazards is not known or understood or is much higher than originally thought. •A hazard is not appropriately controlled. •A change in conditions is noticed. •They do not feel safe with site conditions. •An incident occurs. •The attitude and behaviours of other people in the work area compromise the health and safety of themselves and others. •This SWMS is incorrect or not being followed •If there is a breach of a Life Saving Rule.

Safety Fundamentals

Start Right	Stop Right
Pre-Start Hazard Risk Assessment (HRA) The HRA is a formal process intended to ensure that employees and workers pause before starting work to complete a final review and assessment of the task or activity they are about to perform. It is intended to identify any health, safety and environmental hazards present at the time and location where the work will be performed that were not identified and controlled by the planning process for that activity. Where any such additional hazards are identified then suitable controls (including methods, procedures, precautions, equipment, or other means as appropriate) must be identified, recorded, and implemented by the work group prior to work commencing to eliminate as far as practicable, the risk of these hazards that may cause harm to people or the environment. The requirement for a HRA in addition to this SWMS will typically arise when: •an activity is not recorded in a hazard register, SWP or SWMS; or •an activity is rated as posing a medium risk low frequency (MRLF) or high-risk low frequency (HRLF); or. •It is a client requirement	Life Saving Rules Life Saving Rules are a set of non-negotiable rules. Life Saving Rules have been designed to focus on high-risk activities, routinely performed in normal operations. Life Saving Rules is message of what acceptable behaviour is and what is not. 1.I will always thoroughly test completed electrical work before completion 2.I will always use fall prevention techniques where there is a risk of falling more than 2 metres 3.I will always use plant and equipment for the job it was intended and within its set safety limits 4.I will never disable or override a safety device without written authorisation 5.I will never work with asbestos, engineered stone, or lead without authorisation 6.I will never begin a skilled task, or operate equipment and machinery unless qualified 7.I will never enter a roof space or subfloor without turning all the power off and having a rescue plan 8.I will never work within 500mm of exposed or unverified conductors unless I am a licenced electrician and follow electrical SWMS.

Preparation for Work

Task	Hazard	Risk	Control
Required Qualifications	Inappropriate qualifications or unlicensed for work	Electric shock, Electrocution, Flash burns	Licensed electrician only; apprentices restricted/prohibited depending on year; supervision as per guidelines
Work Permit System	Failure to follow work permit	Electric shock, Electrocution, Flash burns, Injury	Comply with site permit system; ensure isolation, observers, and restoration conditions are followed
Awareness	Lack of situational awareness; impairment (drugs, fatigue, stress)	Electric shock, Electrocution, Flash burns	Ensure all workers fully understand hazards and scope; exclude impaired persons
Illumination	Poor visibility	Contact with electricity, Arc blast, Electric shock, Electrocution, Flash burns	Adequate task and emergency lighting; lamps protected against breakage
Protective Clothing	Contact with electricity, Arc blast	Electric shock, Electrocution, Flash burns	Task-appropriate arc-rated clothing covering arms & legs, maintained in good condition
Insulated Gloves	Contact with electricity, Arc blast	Electric shock, Electrocution, Flash burns	Wear insulated gloves within 500mm of energised parts; test gloves; use over gloves for cuts/punctures
Eye/Face Protection	Flying debris from electrical explosions	Eye damage, Flash burns	Use face shields and safety glasses per PPE guidance
Conductive Items	Wearing conductive items (rings, watches, etc.)	Electric shock, Electrocution, Flash burns	Remove conductive jewellery/items; use non-conductive ear protection
Safe Work Area	Exposure to electrical source nearby	Electric shock, Electrocution, Flash burns	Establish barriers/signage; inform workers of limits and adjacent live parts
Trafficable Areas	Uncontrolled vehicular/pedestrian traffic	Electric shock, Electrocution, Flash burns	Traffic management procedures; barriers/signage; restrain doors near energised sources
Reduced Mobility Areas	Restricted movement in switchboards, ceilings, trenches	Electric shock, Electrocution, Flash burns	Safety Observer present; rescue plan; caution in confined spaces
Maintain Separation from Earth	Contact with conductive surfaces	Electric shock, Electrocution, Flash burns	Use insulated mats, boots, fiberglass ladders; secure loose panels; Safety Observer if not possible

Preparation for Work

Task	Hazard	Risk	Control
Tools/Equipment with Exposed Conductive Parts	Using non-insulated tools near live parts	Electric shock, Electrocution, Flash burns	Use insulated tools in good condition; avoid questionable insulation
Safety Observer	Inadequate rescue plan; no observer	Delayed rescue, CPR not provided	Appoint trained observer competent in rescue & CPR; cannot multitask; wear PPE

Electrical Isolation

Task	Hazard	Risk	Control
Isolation Principles	Failure to isolate before work	Arc blast, Electrocution, Flash burns	Identify, isolate, secure, discharge stored energy, prove de-energisation with approved testers
Identification of Isolation Points	Inadvertent operation, poor labelling	Arc blast, Electrocution, Flash burns	Check drawings, schedules, labels; confirm by switching; do not rely on control circuits
Risk Assessment and Area Security	Unidentified hazards	Electric shock, Death	Appoint competent personnel; inspect area; review SWMS; coordinate activities
Coordination with Others	Unscheduled disruptions	Electric shock, Death	Consult management, workers, other trades; notify affected persons
Tools, Test Equipment & PPE Selection	Inappropriate or faulty tools	Electric shock, Flash burns	Use tested, calibrated, suitable equipment; maintain clear work area
Confirm and Record Phase Rotation	Contact with electricity	Arc blast, Electrocution, Flash burns	Confirm rotation before de-energising; safe work practices
Secure Isolation / LOTO	Inadvertent re-energisation	Arc blast, Electrocution, Flash burns	Apply lock/tag; uniquely keyed personal locks; danger tags as needed
Prove De-Energisation	Failure to confirm power off	Arc blast, Electrocution, Flash burns	Test sequence with approved meters; retest; only competent persons
Work on De-Energised Equipment	Residual live conductors	Arc blast, Electrocution, Flash burns	De-energise or separate with barriers; reassess hazards; stop if unsafe
Leaving Unfinished Work	Inadvertent energisation	Arc blast, Electrocution, Flash burns	Terminate/bond exposed conductors; apply out-of-service tags; test before re-energising
Restoring Power	Incorrect re-energisation	Arc blast, Electrocution, Flash burns	Notify personnel; inspect site; remove tools; conduct AS/NZS 3000/3017 tests; remove locks/tags

Electrical Testing

Task	Hazard	Risk	Control
Testing - General	Contact with electricity during testing	Electric shock, electrocution, flash burns	Treat all conductors as live; test before touch; visual inspection; isolate when possible; proper PPE; safe position; inspect test equipment
Voltage Testing	Incorrect or unsafe voltage testing	Electric shock, burns	Test meters before and after use; use approved equipment; avoid field-only detectors
Fault-Finding	Bridging circuits or interlocks	Inadvertent energisation, high voltage	Avoid forcing interlocks; discharge capacitors; extreme caution with CTs; prove de-energised
Testing Plug-In Equipment	Live testing of plug-in equipment	Electric shock, electrocution	Use RCD or isolation transformer for all plug-in tests
Setup of Worksite	Non-compliance with safety rules	Electric shock, electrocution, burns	Follow SWMS; coordinate with general trade SWMS; adhere to safety requirements
Asbestos Presence	Exposure to asbestos dust	Mesothelioma, asbestosis, lung cancer	Refer to Asbestos SWMS; install barriers; use PPE; dispose at licensed facility
Conduct Risk Assessment	Unidentified hazards	Electric shock, burns, electrocution	Qualified staff; inspect site; review SWMS; record controls
Identify Energy Sources	Unisolated circuits	Electric shock, electrocution, burns	Follow isolation SWMS and LOTO; avoid live work
High Current Equipment	Proximity to transformers, UPS, solar, etc.	Arc flash, burns	Conduct site survey; contact supervisor for analysis; use PPE per kA rating
Assume fault level	Unknown fault current	Arc flash, electrocution	Use kA rating or amps rating to determine PPE ATPV; refer to PPE table
Select test equipment	Incorrect or faulty instruments	Electric shock, burns	Use Cat 3+ rated instruments; test before and after; ensure proper lighting
Identify earth potential	Improper earthing	Electric shock	Touch earth conductor only with insulated probes
Identify conductors	Accidental contact within 500mm	Electric shock, burns	Do not touch except with probes; isolate or shield exposed conductors
Verify de-energisation	Failure to confirm isolation	Electric shock, burns	Test area with device; confirm dead before touching
Post-test check	Faulty test device	Electric shock, burns	Reconfirm test device works post-test
Touch conductors	Inadvertent energised contact	Electric shock, burns	Re-test before touch; use insulated tools
Verification testing	Unverified testing process	Electric shock, burns	Follow Verification Testing SWMS
Quantify arc hazard	Arc flash incident energy	Severe burns, blindness	Use ENA NENS-09/IEEE 1584 methods; estimate based on kA or A rating; align PPE to ATPV

Verification Testing

Task	Hazard	Risk	Control
Setup of worksite & using tools and equipment	Non-compliance with site safety rules	Electric shock, electrocution, flash burns	Use SWMS in conjunction with General Trade Work SWMS and other relevant SWMS.
Working on or near asbestos materials	Exposure to asbestos dust	Mesothelioma, asbestosis, lung cancer	Refer to Asbestos SWMS; install barriers; wear PPE; dispose waste at licensed depot.
Conduct workplace risk assessment & secure area	Contact with electricity, arc blast	Electric shock, electrocution, flash burns	Test before touch; identify tasks; appoint licensed electrician; inspect area; review SWMS; record controls.
Plan and coordinate activities	Unscheduled disruptions; lack of coordination	Electric shock, electrocution, flash burns	Consult management; coordinate with other trades; notify affected persons.
Identify and isolate all energy sources	Exposure to live circuits	Electric shock, electrocution, flash burns	Follow Electrical Isolation SWMS; apply LOTO; avoid working live.
Visual inspection before energising	Contact with electricity during prep work	Electric shock, electrocution, flash burns	Check installation per AS/NZS 3000; use PPE and insulated gloves; ensure circuits identified; ensure lighting adequate.
Check test device for integrity	Faulty or unverified test device	Incorrect readings, electric shock	Prove test equipment before use; ensure in good condition.
Test new installation/repairs prior to energising	Contact with live parts	Electric shock, electrocution, flash burns	Follow Electrical Testing SWMS; comply with AS/NZS 3000 & AS 3017; terminate exposed conductors.
Replace removable switches (off) and rack-in	Equipment malfunction	Electric shock, electrocution, flash burns	Confirm test equipment operational before use.
Energise and test wiring/equipment	Incorrect sequencing; contact with electricity	Electric shock, electrocution, flash burns	Sequence energising; verify polarity & phase rotation; confirm safe operation before handover.
Tidy up installation and remove equipment	Residual electrical hazards	Electric shock, electrocution, flash burns	Use PPE per risk assessment; follow PPE table.
Remove signage and barriers	Residual energy or unsafe removal	Electric shock, electrocution, flash burns	Ensure area safe before removing barriers; use PPE as per assessment.
Handover installation to client	Incorrect documentation; incomplete compliance	Electric shock, electrocution, flash burns	Complete certificate of compliance; submit to authorities; provide documentation to client.
Quantify arc hazard	Arc flash incident energy	Severe burns, blindness, hearing loss	Estimate incident energy per ENA NENS-09/IEEE 1584; align PPE ATPV with kA or A rating.
Safety Observer	Inadequate rescue or supervision	Inability to provide CPR/rescue in emergency	Appoint competent Safety Observer; trained in CPR & electrical rescue; maintain PPE; monitor high-risk work.

Working in Proximity to Low or High Voltage Assets

Task	Hazard	Probability	Consequence	Ranking	Control	Person Responsible	Probability	Consequence	Ranking
		Inherent Risk					Residual Risk		
Obtain Site Permits & Approvals. Power Authority compliance, Local Council, Other Regulatory approvals including Land Access Compliance	Trespassing, Unauthorised entry/access to public/private property, Legal, Environmental or Cultural practices breach	4	3	H7	1 - Land Access Manager shall ensure that all relevant searches are and have been conducted and Power Authority as well as Regulatory Approvals have been obtained for all properties/areas within the SC scope of works for the project being worked on. 2 - Land Access Manager & Supervisor shall be aware of all the requirements. 3 - Site Supervisor/Staff shall NOT conduct any field operations without having an approved copy of a LAC notice & other site specific approvals displaying effective start and end dates. 4 - Supervisor (Contractor) shall ensure that all works cease until an approved, current LAC notice is sought and available onsite. 5 - Site Staff NOT having a current LAC notice must advise their Site Supervisor/Manager immediately. All works MUST cease until a current LAC notice has been sought & provided	Supervisor / Work Team	2	3	M5
Conduct Site Specific Risk Assessment	Failure to complete a site specific risk assessment of the worksite, therefore potentially exposing staff & others to worksite hazards	3	3	M6	1 - Site Supervisor shall ensure that a Daily Site Inspection is conducted prior to commencing any works. 2 - Site Supervisor shall identify and document all found hazards by completing the appropriate Hazard Identification & form and identifying the controls for the hazards. 3 - Site Supervisor MUST advise all staff of the risks identified and controls to be applied at the worksite prior to commencing work. 4 - Site Supervisor shall ensure that all PPE and pre-start checks are completed. 5 - Site Staff MUST read, understand and sign-off on all risks & their controls identified at the worksite.	Supervisor / Work Team	2	3	M5
Identify Hazards	Contact with live electrical wires	3	4	H7	1 - Identify hazards - Live electrical services, EPR zones and other potential electrical hazards must be identified prior to commencing work, through visual inspections, the use of service locators and consultation with utilities, facility owners or end users. 2 - When work within an earth potential rise (EPR) zone cannot be avoided, appropriate controls must be in place to manage the electrical EPR zone risks	Supervisor / Work Team	2	3	M5

Working in Proximity to Low or High Voltage Assets

Task	Hazard	Probability	Consequence	Ranking	Control	Person Responsible	Probability	Consequence	Ranking
		Inherent Risk					Residual Risk		
Conduct Site Induction	Failure to provide induction to staff/visitors to the worksite, therefore potentially exposing staff & others to worksite hazards	3	4	H7	1 - Site Supervisor/Team Leader shall ensure that all staff on worksite complete site specific induction prior to commencing work. 2 - Site Supervisor/Team Leader shall ensure that all visitors to the worksite are inducted and have signed the Induction Record Form prior to entering the worksite. 3 - Site Supervisor/Team Leader shall ensure that the worksite perimeter is defined, and that entry to the worksite is limited to ensure unauthorised entry is kept to a minimum. 4 - Site Supervisor/Team Leader shall set up an entry point to the site with all relevant Induction notifications being displayed at this point.	Supervisor / Work Team	2	4	M6
Working Near Electricity	Contact with live electrical wires	3	4	H7	1 - Job planning must eliminate, or otherwise minimise so far as reasonably practicable the risk of people interacting with electricity 2 - A licenced electrician is to be engaged to isolate and test any electrical circuit that may need to be isolated 3 - Identification of overhead & underground services by "Dial Before You Dig" 4 - Minimum clearances must be maintained 5 - Regular Test & tagging of all electrical equipment 6 - Portable equipment must be inspected prior to use to ensure it is in good working order.	Supervisor / Work Team	2	4	M6
Mobile Plant & Equipment	Contact with live electrical wires	3	5	H8	1 - Approach distances calculated for each piece of equipment prior to the commencement of work. 2 - Calculations conducted in accordance with NSW Code of Practice Work Near Overhead Power Lines 2006. Recommended distances as per Section 3, Table 1	Supervisor / Work Team	1	5	M6

Cable Installation

Task	Hazard	Risk	Control
Setup of worksite & using tools	Non-compliance with site safety rules	Injury, death	Use SWMS with 'General Trade Work SWMS' and relevant SWMS.
Conduit installation before concrete pour	Sun exposure, walking on unstable reinforcing steel	Cuts, falls, burns, electric shock, sunburn, muscular injury	Follow SWP-019; wear PPE, apply sunscreen, hydration, rest breaks, gloves, use kneel boards/walkways.
Conduit installation in ground	Electric shock, explosion, sun exposure, mobile plant, manual handling	Electrocution, burns, sunburn, muscular damage	Follow SWP-006; dial before dig; isolate services; use PPE; excavate manually near services; ensure clear area; follow Excavation SWMS.
Conduit installation in walls/ceilings	Falls, electric shock, debris, falling objects	Cuts, falls, burns, electric shock	Follow SWP-005; clear trip hazards; PPE; use sharp bits; restrict pedestrian access; scaffolds/ladders/EWP per SWMS; fall protection as required.
Cable & ladder tray installation	Falls, noise, debris, cutting/welding hazards	Burns, falls, cuts, electric shock	Follow SWP-020; clear walkways; PPE; clamp workpiece; fire extinguisher ready; fall protection; follow manual handling procedures.
Installation of cable supports	Falling objects, manual handling, height work	Cuts, shock, muscular injury	Follow SWP-025; keep lift area clear; use aids; fall protection; test and tag tools; use scaffolds/ladders/EWP per SWMS.
Winch setup	Manual handling, crushing hazards	Cuts, muscular strain, crushing injuries	Inspect winch/rope; operator training; lifting aids; pre-start checks; PPE.
Winch anchoring	Manual handling, crushing hazards	Cuts, muscular strain, crushing injuries	Trained personnel to install winch; PPE.
Winch operation - rope break	Rope break, falling/flying objects	Cuts, crushing injuries	Operator behind barrier; rope guards; follow AS1418; PPE; follow manual.
Winch operation - public risk	Uncontrolled area access	Injury to public	Cordon off area; follow operator manual; PPE.
Winch operation - operator distraction	Loss of control	Struck by rope, crushing	Use deadman foot switch; PPE; follow manual.
Winch operation - service brake failure	Loss of braking	Flying rope, crushing injuries	Fail-safe emergency brake; PPE; follow manual.
Winch operation - load snag	Rope tension, snagged load	Crushing, struck by rope	Release pressure, support load, reposition safely; PPE; follow manual.
Winch operation - load cell malfunction	Exceeding SWL	Flying rope, crushing injuries	Set hydraulic relief; train operator; PPE; follow manual.
Winch operation - hydraulic hose burst	High-pressure oil spray	Burns, crushing injuries	Guarding; pre-start checks; PPE.
Mains/submains installation	Falling objects, manual handling, electric shock	Electrocution, muscular injury	Follow SWP-026/029; confirm not live; isolate; insulate cable ends; restrain cables; barricade; manual handling aids; PPE.
Power/light cabling installation	Falls, manual handling, live connections	Electrocution, muscular injury	Follow SWP-030; confirm not live; short and tape de-energised cables; manual handling aids; fall protection; ladders/scaffold/EWP; gloves.
Special cabling (Pyrotenax, fibre optic, SELV, comms)	Falls, manual handling, trip hazards	Cuts, muscular injury, falls	Follow SWP-023/041/042; clear walkways; PPE; keep fibre ends bonded; use aids; fall protection; ladders/scaffold/EWP.

Cable Installation

Task	Hazard	Risk	Control
Heat shrink joints/lugs	Cuts, burns, fire/explosion	Burns, electric shock	Follow SWP-018; remove burrs; wear cut-resistant gloves; use crimping tools; heat gun preferred; hot work permit; extinguisher ready; check for gas; allow cooling.
Restricted spaces (roof/subfloor)	Cuts, vermin, asbestos, dust, heat stress, electric shock	Burns, disease, respiratory issues, falls	Follow Restricted Spaces SWMS; manual handling aids; fall protection; ladders/scaffolds/EWP; PPE; ventilation.
Working in false ceilings	Dust, vermin, asbestos, electric shock, falls	Burns, electrocution, respiratory issues	Follow Working at Heights; isolate circuits; confirm grid dead; manual handling aids; fall protection; replace ceiling tiles/lights securely.
Communication pits <1.5m	Trip hazards, vermin, sharps, asbestos	Cuts, disease, shock, falls	Check asbestos register; barricade; remove pests/sharps safely; use mechanical aids; standby person; PPE.
Fibre optic termination	Laser, sharp fibres	Eye injury, cuts	Follow SWP-043; good lighting; follow manufacturer guidance; PPE (gloves/glasses); never look into live fibre; dispose fibres safely.

Radio Frequency Transmitter

Task	Hazard	Risk	Control
Setup of worksite & using tools and equipment	Non-compliance with site safety rules	Injury, death	Use this SWMS in conjunction with 'General Trade Work SWMS' and other relevant SWMS.
Working alone and remote work	Environmental exposure, wildlife, vehicle incidents, fatigue	Heat stress, dehydration, injury, illness, psychological strain	Provide suitable vehicles, tools, food, and communication; consult emergency services; schedule work in cooler periods; monitor weather; provide repellents; train staff on dangerous fauna and first aid; ensure allergy management plans; confirm fitness for duty.
Identify all potential RF emission sources	Over exposure to RF	Radiation sickness	Consult RF signage and RF Site Management Book (RCSMB); meet site representative; access only via designated walkways and safe areas; restrict access to high exposure zones; review RF hazard drawings.
Read RF hazard drawings and signage	Exposure to RF fields	Radiation sickness	Identify and comply with RF hazard zone color codes: Red & Yellow = No public access; Yellow = Trained RF workers only; White = General access; maintain barriers and signage.
Additional precautions for sites with multiple transmitters	Overlapping RF emissions	Radiation sickness	Identify all co-located transmitters (mobile, radio, TV, emergency); coordinate with other operators; ensure safe access.
Work in RF hazard zone	High RF emission exposure	Radiation sickness	Contact Mobile Carrier Network Operations Centre for switch-off or power-down coordination; follow isolation procedures; call each carrier to ensure coordinated shutdown; use RF personal monitoring device (e.g., RADMAN); ensure monitoring equipment is serviceable and correctly used.

Test & Tag

Task	Hazard	Risk	Control
Consultation	Trips, slips & falls; sharp edges	Cuts, abrasions, sprains, strains	Consult all affected persons; include HSR; coordinate with site management; document consultation; ensure site induction and WHS Construction Induction Card compliance.
Undertake/confirm worksite risk assessment	Faulty equipment, slips, poor lighting or ventilation	Electric shock, strain, injury	Assess site hazards (lighting, humidity, proximity hazards, chemical presence); confirm accessibility; check for equipment faults; review Test & Tag register; comply with AS/NZS 3760:2022 Table 2.4; install barricades/signage if required.
Check operation of test equipment	Faulty test device, damaged cords	Electric shock, electrocution, flash burns	Inspect condition and calibration; ensure batteries charged, cords intact, displays functional; confirm operator competency; isolate test equipment per SWP-013.
Ensure isolation of equipment to be tested	Live electrical exposure	Electric shock, electrocution, flash burns	Switch off at socket; disconnect plug; follow no live work policy; inspect for damage to plugs, connectors, guards, ventilation.
Visual and physical inspection	Damaged cords, overheating, poor anchoring	Electric shock, burns, fire	Inspect cords, plugs, guards, ventilation; tag 'out of service' if faults found; repair or remove item permanently.
Test earth continuity resistance	Faulty earthing	Electric shock, electrocution, flash burns	Ensure resistance ≤ 1 ohm; leakage current limits: Class I 5mA, Class II 1mA; use RCD or isolation transformer; prepare separate SWMS for live testing if needed.
Test insulation resistance	Inadequate insulation	Electric shock, electrocution, flash burns	Ensure resistance ≥ 1 mega ohm; leakage current limits: Class I 5mA, Class II 1mA; use RCD or isolation transformer; prepare SWMS for live testing if required.
Tagging	No tag or incomplete label	Non-compliance, shock risk	Prepare and fit durable tag showing tester name, date, outcome, and next due date.
Record keeping	Missing test record	Unverified safety compliance	Log all tested equipment; maintain Test & Tag register; provide copy to client.
Faulty equipment/items	Defective appliances or cables	Electric shock, electrocution	Remove from service; notify client; tag as 'out of service'; arrange repair or disposal.

Thermography

Task	Hazard	Risk	Control
Setup of worksite & using tools and equipment	Non-compliance with site safety rules	Injury, death	Use this SWMS in conjunction with General Trade Work SWMS and any other relevant SWMS.
Working on or near asbestos-containing materials	Danger to public and other workers; asbestos dust	Exposure to asbestos, mesothelioma, asbestosis, lung cancer	Refer to Asbestos SWMS; install barriers; wear PPE; minimise disturbance; dispose at authorised depot.
Access to site	Unauthorised/untrained personnel; trip hazards	Slips, trips, falls, electric shock, electrocution, flash burns	Restrict site to authorised personnel; maintain situational awareness; complete induction; wear required PPE.
Acquire permits/approval to work	Unauthorised access; electrical exposure	Electric shock, arc blast, electrocution, flash burns	Obtain supervisor approval; sign onto permits; comply with site documentation before starting work.
Identify all switchboards/cabinets/panels to be tested/imaged	Contact with electricity, arc blast, dust	Electric shock, electrocution, flash burns, respiratory issues	Ensure obstacle-free access; use proximity meter; inspect for damage, missing parts, dust; remove hazards; photograph damage; report to supervisor.
Select suitable equipment	Equipment failure, incorrect readings	Electric shock, arc blast, electrocution, flash burns	Use approved thermography equipment; prevent simultaneous contact with conductors; ensure stable working position.
Check test equipment integrity	Faulty or unverified equipment	Electric shock, electrocution, flash burns	Verify test device before use; confirm correct operation and calibration.
Working around the public and other trades	Uncontrolled access to work area	Electric shock, electrocution, flash burns	Erect barriers/lockouts; assign safety observer if no restricted area available.
Open switchboard/cabinet/panel door/covers	Contact with live components	Electric shock, electrocution, flash burns	Check for authorisation; use proximity meter; wear insulated gloves; isolate if unsafe; photograph hazards.
Take thermal images	Contact with live parts, arc blast	Electric shock, electrocution, flash burns	Restrict area access; prevent contact; collect required images and data safely.
Close switchboard/cabinet/panel door/covers	Contact with live components	Electric shock, electrocution, flash burns	Ensure safety and restricted access; close panels safely; confirm no contact with live parts.
Clean up and pack away	Residual electrical hazards, poor housekeeping	Electric shock, electrocution, flash burns	Return area to original condition; remove barriers; clear equipment; supervisor to inspect and document area.
Quantify arc hazard (low voltage)	Arc flash incident energy	Severe burns, blindness, hearing damage	Estimate incident energy using ENA NENS-09 or IEEE 1584; if unknown, use kA or fuse amps method; align PPE ATPV with estimated cal/cm ² rating.

PPE

Task	Hazard	Risk	Control
Qualifications	Unlicensed or inappropriate qualification	Electric shock, electrocution, flash burns	Use licensed electrician; supervision of apprentices per National Guidelines; apprentices restricted by year
Work permit system	Lack of permit control	Injury, equipment damage	Follow site work permit system; isolation; safety observers; conditions for restoring power
Awareness	Lack of situational awareness, impairment (drugs, fatigue, distraction)	Electric shock, electrocution, flash burns	Workers must be fit for work, aware of hazards; exclude impaired personnel
Illumination	Poor visibility	Contact with electricity, arc blast, shock	Provide adequate lighting; protect lamps against breakage
Protective clothing	Exposure to electricity/arc	Electric shock, burns	Wear arc-rated clothing covering body; task-specific PPE
Insulated gloves	Contact with electricity/arc	Shock, burns	Use tested insulated gloves within 500mm; inspect for leaks; use overgloves
Eye/Face protection	Flying debris, arcs	Eye injury, burns	Use face shields, safety glasses
Conductive items	Wearing metal items near live conductors	Shock, burns	Remove jewellery, conductive clothing features
Identify safe work area	Exposure to live sources	Shock, burns	Erect barriers, warning signs; notify personnel
Trafficable areas	Working near vehicle/pedestrian traffic	Shock, collision, burns	Traffic management, barriers, screens, lighting
Areas of reduced mobility	Restricted movement/escape	Inability to disconnect; shock, burns	Safety Observer present; special caution in confined/awkward spaces
Maintain separation from earth	Contact with conductive surfaces	Shock, burns	Use insulated mats, boots, fiberglass ladders, insulated tools
Use of tools/equipment	Conductive tools near live parts	Shock, burns	Use insulated tools, good condition, tested
Safety Observer	Inadequate rescue plan	No CPR/rescue in emergency	Competent trained observer, CPR, electrical rescue, no distractions
Isolation principles	Contact with electricity	Shock, burns, electrocution	Identify, isolate, secure, discharge energy, prove de-energisation
Identify isolation points	Inadvertent operation	Shock, burns	Test before touch; identify correct isolation points; avoid relying on control circuits
Risk assessment & secure area	Unidentified hazards	Shock, burns, electrocution	Qualified staff; inspect area; review SWMS; plan activities
Coordination	Unscheduled disruption	Shock, burns, electrocution	Consult management, workers, notify affected trades
Tools & PPE selection	Inappropriate equipment	Shock, burns	Use rated, maintained, calibrated equipment
Housekeeping	Obstructions, distractions	Shock, burns	Clear work area; barricades; signage
Prove de-energisation	Failure to confirm isolation	Shock, burns	Test all conductors with approved meters; test meter before/after
Work on de-energised equipment	Unexpected re-energisation	Shock, burns	Ensure isolation, barriers, vigilance
Leaving unfinished work	Unsecured site	Re-energisation risk	Terminate/bond exposed conductors; out-of-service tags; inform workers
Re-energisation	Unsafe restoration	Shock, burns	Notify persons; inspect site; remove locks/tags; functional tests; reinstate guards

PPE

Task	Hazard	Risk	Control
Arc flash <10kA / <63A	Arc blast minor	Minor burns, hearing discomfort	HRC 0 PPE: cotton long sleeves/pants, safety glasses, insulated gloves
Arc flash 10–20kA / >63A	Moderate arc blast	Moderate burns, hearing/vision damage	HRC 1 PPE: arc-rated clothing 4 cal/cm ² , face shield, gloves, mat, first aid kit
Arc flash 20–40kA / >160A	Significant arc blast	Severe burns, hearing/vision loss	HRC 2 PPE: arc-rated 8 cal/cm ² , shield, insulated gloves+outers, safety observer, LV kit
Arc flash 40–80kA / >800A	Substantial arc blast	Life-threatening burns, blindness	HRC 3 PPE: layered clothing + arc suit 25 cal/cm ² , hood, gloves, observer, rescue kit
Arc flash >80kA / >2000A	Catastrophic blast	Fatal injuries	HRC 4 PPE: layered arc-rated suit 40 cal/cm ² , hood, gloves, observer, rescue kit

Monitor & Review

Task	Hazard	Risk	Control
Implementation			1 - Company policies and procedures. 2 - Construction and Rail Industry Inductions. 3 - SWMS Briefings and Sign Off by Operators. Any changes during consultation are incorporated into the SWMS and Workers briefed on changes. 4 - All relevant permits and approvals obtained prior to commencement of work.
Monitor			1 - SWMS to be reviewed by all staff through daily pre-start and weekly toolbox talks for effectiveness & application to site. 2 - Compliance to the SWMS is monitored using a system of routine or random workplace inspections. 3 - In the event that the work is not being carried out in accordance with the SWMS, all work will cease immediately. SWMS are reviewed to identify non-compliance and ensure the method in the SWMS is the most practical and safest way of doing the task. The SWMS is revised if another method is identified as being a safer option, before work resumes. 4 - Feedback to be given by all staff and improvements to be included in revision of SWMS. 5 - In the event of changes to SWMS, workers are briefed on changes and sign off on revised SWMS.
Review			SWMS are reviewed under the following circumstances: 1 - Following an incident. 2 - If the SWMS is deemed impractical through consultation with Workers. 3 - If new hazards have been identified. 4 - If the work method has changed including changes to the workplace, environment, a system of work, a process or a procedure. 5 - On restarting the activity after a significant break. 6 - At the request of a HSR. 7 - Annually if none of the above.

Sign Off

The representatives of Inner West Electrical listed below have been involved in the creation and implementation of this Safe Work Method Statement (SWMS) and will make sure all work is carried out in accordance with this document. All workers listed below have the appropriate licence/qualifications and/or experience required to perform each job task:

Workers Name	Role	Signature	Date