



EEI - COMPANY DETAILS

SWMS No: 02

Name: Eureka Electrical & Instrumentation

Revision No: 01

Address: 45 Ventnor Ave, West Perth, Western Australia 6005

Revision Date: 8/4/2025

ABN: 51 147 752 985

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Approved by:

Date:

Works Manager: Nick O'Connor

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PROJECT DETAILS

Name: Alkimos Desalination Plant

Address: 11 Brindabella Parkway, Alkimos WA, 6039

CLIENT / PRINCIPAL CONTRACTOR DETAILS

Name: Alkimos Seawater Joint Venture

Date provided to PC: 16/4/2025

Contact: Eric Cure

Phone: Available on request

WORK ACTIVITY

Installation, inspection and testing of new electrical installations in buildings and structures.

SCOPE OF WORK COVERED BY THIS SAFE WORK METHOD STATEMENT

The Electrical Work - New Installations Safe Work Method Statement (SWMS) outlines the main hazards and risks associated with work involving new low voltage electrical installations in buildings under construction, including risk of falls, hazardous manual tasks, and environmental hazards due to construction activities and waste generated on site. The SWMS provides details of the safety and environmental controls required when installing new low voltage electrical installations in buildings. (Note: Due to significant variations in Respirable Crystalline Silica (RCS) requirements between states and territories, reference to regulations, codes of practice and guidance material in each jurisdiction is recommended.) (See SWMS0437 – Silica – Respirable Crystalline (RCS)).

GENERAL INSTRUCTIONS FOR SAFE WORK METHOD STATEMENTS

SITE SPECIFIC CONSIDERATIONS

A safe work method statement (SWMS) must be prepared for any and all high risk construction work to be undertaken prior to the work commencing. All high risk construction work must be carried out in accordance with this SWMS.

This SWMS must be kept and be available for inspection until the high risk construction work to which this SWMS relates is completed. If the SWMS is revised, all versions should be kept.

If a notifiable incident occurs in relation to the high risk construction work in this SWMS, the SWMS must be kept for at least 2 years from the date of the notifiable incident.

The PCBU or employer must ensure, so far as is reasonably practicable, that the information, training and instruction is provided in a way that is readily understandable by any person to whom it is provided.

SAFE WORK METHOD STATEMENT

Electrical Work - New Installations

WHAT MEASURES ARE IN PLACE TO ENSURE COMPLIANCE WITH THIS SWMS?

Supervision		Inspections		Site audit	
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PERSON RESPONSIBLE FOR MONITORING COMPLIANCE WITH THIS SWMS

Name		Date Received	
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HOW WILL SWMS CONTROL MEASURES BE REVIEWED?

Compliance with regulations & CoPs?		Fit for purpose & adequate for task?	
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PERSON RESPONSIBLE FOR REVIEW OF SWMS CONTROL MEASURES

Name		Date Received	
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HOW WILL CHANGES TO THIS SWMS BE MADE?

JSA (on site – approval required)		Revision (revised SWMS re-issued)	
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HOW WILL CHANGES TO THIS SWMS BE COMMUNICATED TO WORKERS?

SWMS induction		Pre-start meeting		Toolbox talk	
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HIGH RISK CONSTRUCTION WORK ACTIVITIES (CHECK ANY THAT ARE APPLICABLE TO WORK COVERED BY THIS SWMS)

	A risk of a person falling more than 2 metres (or 3 metres in SA)		Demolition of a load-bearing structure		Work on a telecommunications tower
	Work in or near a shaft or trench with an excavated depth over 1.5m; or in a tunnel		Temporary load-bearing support structures		Work on or near pressurised gas distribution mains or piping and/or Work on or near chemical, fuel or refrigerant lines
	Work in an area at a workplace in which there is any movement of powered mobile plant		Work involving the use of explosives		Work in an area in which there are artificial extremes of temperature
	The disturbance of or likely disturbance of asbestos		Tilt-up or precast concrete		Work on, under or near water or other liquid that involves a risk of drowning
X	Work on or near energised electrical installations or services		Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor used by traffic other than pedestrians		Diving work
	Work carried out in or near a confined space	X	Work in an area that may have a contaminated or flammable atmosphere	X	Work that involves the cutting of crystalline silica material using power tools or another mechanical process (ACT Only)

RISK CONTROL

Actions to be taken to control risks

Hierarchy of risk controls (in order of preference)

How will risk controls be implemented?

What measures are in place to ensure compliance with this SWMS?

Check

Check all measures used to ensure compliance with this SWMS

SAFE WORK METHOD STATEMENT

Electrical Work - New Installations

1 Elimination (most effective)	Eliminate the hazard and the associated risk
2 Substitution	Substitute the hazard with something safer
3 Isolation	Isolate the hazard from people (e.g., barrier, wall)
4 Engineering means	Physical controls including guards, mechanical devices
5 Administrative controls	Work methods or procedures to minimise exposure
6 PPE (least effective)	Provide protective clothing and equipment to workers

Responsible person appointed to monitor compliance with SWMS by workers	
Site-specific inductions; pre-start meetings and toolbox talks with workers	
SWMS provided to and discussed with workers and signed off	
Ongoing workplace supervision by competent personnel	
Monitoring of work methods and review of SWMS where necessary	
SWMS control measures revised if work methods or risks change	

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CHEMICALS TO BE USED ON SITE

Name of chemical	Hazard class (GHS)	Category	SDS date

PERMITS, ISOLATIONS AND AUTHORISATIONS REQUIRED

HIGH RISK WORK LICENSES AND COMPETENCIES REQUIRED

Plant or occupation	Class	Type/description	Worker's name	Number	Expiry

SAFE WORK METHOD STATEMENT

Electrical Work - New Installations

SAFETY EQUIPMENT REQUIRED

Barricading, traffic control devices	Signage	Fall prevention (safety harness, lanyard)	Traffic control	Other (specify below):

PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT (PPE)

Required PPE is highlighted in red with green check. Task Specific PPE is highlighted in blue. Ensure all workers have required PPE before any work requiring the PPE has commenced.



WORKER INSTRUCTION & SIGN OFF

All workers must sign below before commencing work covered by this SWMS: I have been consulted, instructed in and fully understand the content of this SWMS

Worker's name	Signature	Date	Worker's name	Signature	Date

REVIEWS

Review No.	01	02	03	04	05	06
Name						
Signature						
Date						

Job activity	Hazards and associated risks	How will the hazards and the risks be controlled?
Inductions and training	Untrained workers	All persons working on a construction site must hold a General Construction Induction (GCI) card. Carry out site-specific inductions for all workers. Conduct pre-start briefings to inform workers of specific hazards and risks that may be encountered on site, and the controls to be implemented. Inductions and pre-starts should include details of clothing and PPE requirements and be documented. All workers must be competent in the tasks carried out. Electrical work must only be carried out by a licensed electrical worker except where the work is carried out under the direct supervision of an electrical worker and the work does not involve physical contact with any energised electrical equipment. Note: Ancillary work and work on non-electrical components of electrical equipment (e.g., installation of ducting, conduits, cable trays, cabinets, plug-in fixtures, etc.) where the worker is not exposed to an electrical hazard is not classified as electrical work. Workers must be trained in the correct selection, use and care of PPE including fit-checking of respiratory protection.
Site establishment and security	Unauthorised entry to site	Inspect site before starting work to identify security and unauthorised access risks and problems with access to potentially hazardous work areas. Barricade and prevent unauthorised access into work areas where presence of other persons may present a hazard or risk to workers in the area.
Traffic	Collisions	Provide safe parking for vehicles on site where practicable. Provide barricaded safe unloading area when vehicles must be parked on roadway for delivery of materials, tools and equipment. Ensure that all work is carried out within the barricaded area. Use traffic control when working on trafficked roadways, or during delivery of materials or delivery or removal of plant which cannot be carried out within the barricaded work area. Wear high-visibility clothing when working in or near roadways and traffic.

Job activity	Hazards and associated risks	How will the hazards and the risks be controlled?
Hazardous manual tasks	Strains, personal injury	Provide sufficient personnel or mechanical aids to handle and move large, heavy or awkward loads. Provide safe means of transporting and moving loads on site to minimise manual movement of heavy items. Ensure that all workers are provided with manual handling training relevant to their work.
Hazardous chemicals	Hazardous exposure	A current Safety Data Sheet must be available for all hazardous chemicals used on site. Instruct all workers in the safe use of any chemical that they may be exposed to or come into contact with. Ensure good ventilation in areas where volatile chemicals are used. Avoid contact with skin and eyes. Wear PPE as recommended in the SDS for the specific chemical being used. Store chemicals in original containers where practicable, and keep containers closed when not in immediate use. Store chemicals in a clean, dry, secure area away from heat and flames. Provide suitable spill kit where spill or leak of chemical may create an environmental risk.
Hazardous materials	Asbestos	Inspect areas where work is to be carried out to determine if asbestos or ACM is or may be present. A licence is not required for work involving the disturbance of asbestos or ACM with regards to minor work. Prevent unauthorised access into area where work involving disturbance of ACM will be carried out. Erect barricades and post signs to indicate and delineate the asbestos-work area. Inspect switch boards and electrical panels before carrying out work on installations where the presence of asbestos is reasonably suspected. (Items containing asbestos should be identified with asbestos warning labels. Work involving the disturbance of non-friable ACM must be carried out in compliance with the relevant Code of Practice for the state or territory where the work is carried out.

Job activity	Hazards and associated risks	How will the hazards and the risks be controlled?
	Silica	Respirable crystalline silica (RCS) will be released when concrete or stone is drilled, cut or ground. All work involving the cutting, drilling or grinding of concrete or stone must be carried out in a manner that will prevent the release of hazardous dust into the atmosphere (e.g., wet cutting, local exhaust ventilation). Keep all other persons clear of work area, use warning signs and barricade area to prevent unauthorised entry. Drills used for drilling holes into concrete should be fitted with a Class H dust collection device fitted with a HEPA filter that prevents escape of dust into the atmosphere. Wear RPE as prescribed by the relevant State or Territory regulator when drilling concrete. (Note: Respiratory protection is not to be relied on as a control measure for RCS). Use a vacuum rated to either M or H-Class when cleaning dust.
	Synthetic mineral fibres (SMFs)	Avoid skin contact with SMF. Wear protective clothing (coveralls) and gloves when handling SMF. Wear a P1 particulate dust mask in enclosed areas. Wash hands and face before eating, drinking or smoking.
Hazardous work areas	Confined spaces	A risk assessment must be carried out to determine if the space (or sections that persons may be required to enter) is a confined space. All work in confined spaces must be carried out in accordance with the Code of Practice Confined spaces.
	Enclosed work areas	A risk assessment of enclosed work areas must be carried out to identify particular hazards and risks associated with the area (e.g., poor lighting, ventilation, access, cramped working conditions, noise, etc.)
	Roof and ceiling voids	Identify all hazards and risks associated with entry into and work in roof and ceiling spaces prior to commencing work. Provide safe means of access to areas and during work to minimise risk of falls.
Construction work – rough in	Risk of falls	Liaise with site foreman prior to entering hazardous work areas (e.g., formwork, excavations, etc.) to place conduits, etc., prior to concrete placement. Exercise care when walking on or over reinforcement. Keep watch for exposed holes, penetrations, etc., when working on formwork.

Job activity	Hazards and associated risks	How will the hazards and the risks be controlled?
	Hazardous manual tasks	Obtain assistance when carrying bundles of conduit. Wear gloves to protect hands when placing conduits in locations where sharp ends of bar or mesh or steel ties may cause injury to hands. Wear safety footwear and other mandatory PPE when working in site conditions.
	Exposure to hazardous chemicals	Avoid contact with PVC primer and solvent when joining conduits. Wear eye and hand protection.
	Exposure to hazardous dust	All work involving the drilling of concrete must be carried out in a manner that does not expose workers to risk of inhalation of dust containing respirable crystalline silica (RCS). Keep all other persons clear of work area, use warning signs and barricade area to prevent unauthorised entry. Drills used for drilling holes into concrete should be fitted with a Class H dust collection device fitted with a HEPA filter that prevents escape of dust into the atmosphere. Wear RPE as prescribed by the relevant State or Territory regulator when drilling concrete. (Note: Respiratory protection is not to be relied on as a control measure for RCS). Use a vacuum rated to either M or H-Class when cleaning holes.
Installation of cable trays, etc.	Foreign objects; noise	Wear safety glasses when drilling metal trays. Wear safety glasses and hearing protection when using hammer drill or when using grinders. Metal cable trays must be effectively earthed.
	Exposure to chemical hazards	Avoid eye and skin contact with chemical anchor. Wear safety glasses and chemical-resistant gloves. Avoid breathing vapours – provide good ventilation in areas where chemicals are used.
	Hazardous manual tasks	Use mechanical aids when handling bundles of trays, etc. Obtain assistance when lifting and mounting trays. Ensure that trays are properly supported until secured in place on hangers or cradles. Avoid prolonged or repetitive postures and movements. Wear gloves when handling metal trays, etc., where rough or sharp edges may be present.

Job activity	Hazards and associated risks	How will the hazards and the risks be controlled?
Installing cables	Hazardous manual tasks	Use trolley if transporting rolls of cables over distances. Place spool or reel on axle or roller system to allow it to turn freely when pulling cable or feeding into conduits. Ensure that a clear direct path is provided for unspooling cables. Avoid jerking movements when pulling cables – obtain assistance if necessary to minimise risk of cable jamming. Instruct workers in correct manual handling practices.
	Risk of falls	Use mobile scaffold or access platform when working above surface level. Only use ladders for access or light work that can be safely carried out with one hand. Maintain 3 points of contact when climbing or descending or working from ladders.
Identification and safeguarding of installed cables	Unidentified or wrongly identified cable	All cables must be clearly identified when installing to ensure that they are connected to the correct circuit. Identifying marks, tags, labels, etc., must be affixed in a manner that will prevent accidental removal.
	Exposure to live cables	Cable ends must be safeguarded to prevent electric shock if the cable is energised in error. Cable ends should be stripped and twisted together, insulated, folded over and taped so that inadvertent energising will trip the circuit breaker protecting the installation. Always treat all installed cables as potentially 'live'.
Installation of electrical cabinets	Hazardous manual tasks	Utilise mechanical means of handling and moving heavy or awkward loads, or for transporting over longer distances. Avoid carrying loads up or down stairs where practicable. Obtain assistance if required, Wear gloves to provide good grip on smooth surfaces and to protect hands from rough or sharp edges.
	Falling objects	Use trolleys in preference to dollies that may move unexpectedly or allow cabinet to fall while being moved or positioned. Do not allow any person to stand in a location where a load may fall on to them. Ensure that cabinets are securely mounted or are secured to wall before vacating work area.
Installation of hardware	Electrical safety	Work must be carried out de-energised where practicable. Ensure that circuit being worked on is effectively physically isolated and secured and tagged where possible. Isolations and tags should only be removed by the person who placed them.

Job activity	Hazards and associated risks	How will the hazards and the risks be controlled?
Installation of switchboards	Construction and installation	Switchboards must conform to approved standards and be installed in accordance with AS/NZS 3000. Clear access of at least 0.6 m must be provided past opened doors of a switchboard at all times. Do not place or allow items to be placed where they will hinder or prevent access to or past a switchboard.
	Wiring and connections	Conductive electrical switchboards must be effectively earthed in accordance with AS/ NZS 3000. All wiring connections to switchboards must be carried out by an appropriately licensed or otherwise authorised person. Energised electrical work must not be carried out unless exempted by Regulations.
Installation of fixtures and fittings	Risk of falls	Provide safe access when working above surface level and where a person may fall from one level to another. Use step platforms where practicable when working above shoulder height. Ladders are to be an industrial type with a 120kg rating. Domestic ladders must not be use in a workplace. Ladders should be used for access only except for light work which can be carried out with one hand. Maintain 3 points of contact when climbing or descending or working from ladders. Folding portable work platformsmust be opened fully and braces locked in position before use. All feet must be in contact with a firm, stable surface. All treads and platform surfaces must be clean and dry.
	Hazardous manual tasks	Ensure good access to work location to avoid prolonged or sustained awkward postures, repetitive movements and repetitive or application of sustained forces when carrying out manual tasks. Implement job rotation or vary tasks being carried out to minimise risk of over-exertion of overuse. Provide mechanical aids (trolleys, etc.) to transport materials, tools and equipment on site.

Job activity	Hazards and associated risks	How will the hazards and the risks be controlled?
Unfinished work	Inadvertent energising; electric shock	The workplace must be left in a safe state if work is left unfinished by: - terminating any exposed conductors - physically securing any exposed conductors and the workplace area - tagging and/or taping off the electrical equipment and the workplace area - informing affected persons at the workplace that the work is not complete - taking necessary precautions to ensure that electrical equipment cannot become inadvertently re-energised - ensuring that the status of switchboards and electrical equipment is clearly and correctly labelled - handing over adequate information to allow workers taking up the unfinished work to continue the work safely.
Inspections and testing	Visual inspections	Visual inspections to verify that the installation has been completed must be carried out to verify that the work conforms to requirements of AS/NZS 3000. Visual inspections must be carried out before or in association with testing and should, where practicable, be carried out before the relevant part of the installation is placed into service. Visual inspections should include all items listed in AS/NZS 3000 Clause 8.2.2 Checklist. Parts of the installation that may not be accessible at the completion of the work due to enclosure within the building structure should be inspected during the course of construction.
	Testing	Testing of installations should be carried out after completion of or in association with the visual inspection to verify that it complies with the requirements of AS/NZS 3000. Testing must be carried out in accordance with AS/NZS 3000 Clause 8.2.3 Mandatory tests.
Completion of work and vacating of site	Safety of installations	Conduct final inspection if installations to ensure that all tags, etc., have been removed and that all cabinets, switchboards, control panels, etc., are secured.
	Safety of persons	Ensure that all tools, equipment, barricading, waste materials, etc., have been removed and that all areas are safe for occupancy.

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