



Australian Government

Department of Sustainability, Environment, Water, Population and Communities
Australian Antarctic Division

ELECTRICIAN

Overview of the Role

As an electrician you will install, operate and maintain Antarctica or sub-Antarctica station's primary power source and the associated electrical reticulation systems, including all refrigeration plant, the Building Management and Control System (BMCS) and the automatic fire detection/alarm systems. You will also assist other trades as required.

What will you actually do on the job?

- Conduct the efficient and effective operation and maintenance of the diesel power generation facilities at a station.
- Operate and maintain the electrical distribution facilities and equipment.
- Operate and maintain all refrigeration equipment.
- Maintain the automatic fire alarm systems including all fire detection and protection equipment.
- Operate and maintain the BMCS.
- Properly maintain the electrical, refrigeration and fire group stores, record stock movements and re-order stores.
- Prepare and submit monthly and annual reports.
- Assist in science programs when necessary.

You are required to maintain a personal and practical commitment to AAD Work Health and Safety (WHS) and Environmental Policies. The safety and environmental roles and responsibilities relevant to your position will be communicated to you by your supervisor.

As well as these specific job roles you will also be required, in common with all other expeditioners, to perform duties rostered by the station leader to support the community life of the expedition, such as general kitchen duties, garbage clearance, general cleaning duties, and assisting other expedition members with official programs.

You can also expect to work in areas outside of your primary trade, for example providing assistance to other trade areas, or participating in general labouring tasks such as clearing snow or handling cargo.

During a winter position you will be required to carry a pager and participate in an on-call roster to respond to out-of-hours pager alarms generated by critical plant and equipment.

Required Skills, Knowledge and Attributes

Our expectation is that you will have wide general experience in the electrical trade including knowledge and experience in the following:

- Installation, commissioning and/or maintenance of single and three phase alternators up to 500 KVA.
- Complex automatic control equipment, including relay logic and programmable logic controllers (PLC's).
- Installation of low, medium and high voltage reticulation and wiring using EPR insulated/CSP sheathed and mineral insulated metal sheathed cable systems.
- Installation, maintenance and operation of high voltage distribution systems (6.6KV) and associated switch gear and protection equipment.
- Installation, maintenance and operation of automatic fire detection/alarm systems.
- Installation, maintenance and operation of commercial and domestic refrigeration plant.
- Maintenance of stock inventories including stocktaking and initiating re-orders of parts, materials and tools.
- Maintenance and operation of potable water production plant (reverse osmosis).
- Installation, maintenance and operation of BMCS, SCADA or PLC-based process control systems.
- Ability to prepare reports on a monthly and annual basis.
- Ability to operate a personal computer.
- Possess other skills of use in an isolated Antarctic community.

Qualifications & Licences

- You will have a Minimum "A" Grade electrical workers / technicians' licence. Additional courses and/or training in the industry are also an advantage.
- You will have successfully completed a Nationally recognised construction industry safety induction unit and hold a current White Card (or nationally recognised equivalent)
- You will hold a current "C" class (manual) Australian driver's license.
- You will have a current statement of attainment in the following units of first aid - Apply First Aid (HLTFA301B) and Perform CPR (HLTCPR201A).

Personal Qualities Requirements

As a member of a small community there are also personal attribute requirements which the Australian Antarctic Division assesses very closely. You will need to meet the personal qualities criteria listed below.

To be successful you will:

- demonstrate a strong work ethic.
- demonstrate that you can make a positive contribution to the community and team.
- demonstrate that you respond to authority and are compliant with the law, legislative requirements and AAD policies and procedures.
- demonstrate a commitment to Australian Antarctic program specific requirements.

Medical, Psychological and Security Screening

If you are assessed as meeting the above job related and personal quality requirements, you will be required to undergo medical, psychological and security screening. Meeting and maintaining suitability in relation to these requirements is mandatory.

- The AAD's Polar Medicine Unit will determine your medical fitness for duty in Antarctica following tests conducted on our behalf by a nominated medical practitioner. If required, this may include comprehensive drug screening for compliance to undertake Safety Sensitive Aviation Activities (SSAA).
- Psychological assessments are conducted on our behalf by a nominated professional provider.
- Security checks vary depending on the role required. This may be limited to a police records check.