



Australian Government

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

INSTRUMENT ELECTRICIAN

Overview of the Role

As an Instrument Electrician you will be responsible for the installation, testing, programming, commissioning and maintenance of equipment associated with the Building Monitoring and Control System (BMCS) and power generation control systems. You will also carry out tasks as per the description for the Electrician.

What will you actually do on the job?

- Install, test, commission and maintain equipment associated with the Building Monitoring and Control System (BMCS), and power generation control systems.
- Investigate problems with instruments and sensors including flow meters, variable speed drives, temperature sensors, pressure and level transmitters, air quality sensors, communications devices and interfaces.
- Carry out limited programming and configuration changes. In particular the development of alarm settings, sensor limits, time schedules, temperature set points and control strategies.
- Conduct annual maintenance tasks associated with the BMCS including the calibration of sensors and field devices.
- Investigate and recommend system improvements with particular emphasis on energy-efficiency.
- Assist station-based employees in the use and operation of the BMCS.
- 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.

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

You will demonstrate capability in the following areas:

- Power generation with a sound technical knowledge of power system protection and control strategies.
- Programming and interfacing field devices to PLC and SCADA systems. Sound technical knowledge of plant and equipment control strategies.
- Building services automation and HVAC control.
- Computer operating systems, industrial communication protocols, interfaces and devices.
- Energy management with specific reference to increasing energy efficiency. Knowledge of energy efficient products / systems.
- Technically resourceful, solve problems and operate with a minimum of supervision.
- Communicate with and provide technical advice to people from a diverse range of backgrounds.
- Other skills of use in an isolated Antarctic community.

Qualifications & Licences

- You will possess an A Grade Electrical licence and demonstrate extensive, relevant experience in the industrial instrumentation area. A certificate in Electrical Instrumentation will be highly regarded.
- 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.