



IDENTIFICATION

Department	Position Title	
Infrastructure	Airport and Marine Electrician	
Position Number	Community	Division/Region
33-7760	Inuvik	Beaufort Delta

PURPOSE OF THE POSITION

The Airport and Marine Electrician maintains and repairs all airport and airfield electrical systems, equipment and components located in Inuvik, Fort McPherson, Aklavik, Tuktoyaktuk, Ulukhaktok, Sachs Harbour, and Paulatuk, as well as the Abraham Francis and Louis Cardinal ferries on the Dempster Highway, to ensure operational integrity and reliability.

SCOPE

The Government of the Northwest Territories (GNWT) owns and operates all airports and highway ferries in the NWT. The Beaufort Delta Region has the responsibility to ensure that airports and marine facilities are in place to meet the demands of the air industry, and that the airports and ferries are operated according to federal regulations and standards.

Located at the Inuvik Airport, this position reports to the Airport Manager. The Airport/Marine Electrician organizes and implements a planned program of maintenance and repair for all electrical systems, equipment and components at the seven Inuvik region airports and the two Dempster Highway ferries.

The airports equipment referred to includes:

- High and low intensity approach lights
- Visual flight approach systems
- High-voltage edge lights and airside lighting
- Airport groundside lighting and electric gate components
- Airport emergency power generation systems
- High-voltage switch gear



RESPONSIBILITIES

1. Plan, organize and implement the maintenance program for the airport/ferries electrical systems.

- Formulates and implements work programs and develops work methods, procedures and acceptance criteria.
- Establishes operation and maintenance costs, and capital costs of new systems, equipment and installations.
- Carries out emergency repairs and makes alternative arrangements in response to electrical and power failures to minimize the impact on airport operations.
- Ensures proper completion of Work Orders and Work Requests.
- Prepares requisitions for materials and supplies.
- Prepares and administers maintenance contracts, inspects completed work, and recommends payment of invoices.

2. Maintain and promote reliable and efficient operation of all airport/ferries electrical systems, equipment and installations, both on and off the Inuvik site and at six remote airport sites and at two ferries, in accordance with requirements.

- Conducts regular inspections, tests, checks and verifications on equipment condition and performance.
- Provides emergency repairs and alternatives in response to electrical equipment and power failures to minimize interruption of service.
- Adjusts, calibrates, re-aligns and repairs equipment and installations to the required performance standards.
- Reports equipment failures and abnormalities in equipment performance and recommends corrective action.
- Maintains electrical drawings, data and inventory to "as built" status.
- Maintains adequate supply of materials, spare parts, tools and test instruments to perform emergency repairs and deliver the preventative maintenance program.
- Maintains records of materials spent in preventative maintenance.

3. Perform diagnosis and restoration of all airport/ferries electrical systems, equipment and installations, to the required operational reliability and performance standards.

- Consults manuals, drawings, data and diagrams.
- Locates faults with diagnostic equipment and test instruments.
- Repairs, adjusts, calibrates, aligns and overhauls electrical equipment.
- Requisitions parts and materials required to carry out repairs and overhauls.
- Verifies that operational reliability and performance levels have been restored after repairs and overhauls by conducting tests and trial runs.



4. Provide technical advice and service to management and other government departments, agencies, contractors, consultants and airport tenants in support of capital projects.

- Demonstrates and explains various electrical systems, equipment and installations, and performs shutdowns when required.
- Checks plans and specifications for new projects to ensure compatibility with other existing systems, equipment and installations on the airport.
- Provides safety and security escort and orientation when work is performed on airport systems, equipment and installations.
- Inspects and reports on contractors' work performance and quality in accordance with contract requirements.
- Ensures that the integrity of electrical systems is maintained during work in progress.
- Verifies performance and recommends acceptance and commissioning.
- Stakes utility and airfield systems for contractors and airport tenants.

WORKING CONDITIONS

Physical Demands

Daily, the incumbent is subject to the risk of electrical burns and potential for serious injury during inspection, testing and repair of installations.

Environmental Conditions

Daily work outdoors is required for durations of 2-4 hours. In the winter season, this includes extremely low temperatures.

Sensory Demands

No unusual demands.

Mental Demands

The position requires travel to other regional airports and ferry sites each month, each trip lasting 1-5 days.



KNOWLEDGE, SKILLS AND ABILITIES

- Knowledge of the Canadian Electrical Code, and of electrical installation and maintenance practices and principles.
- Knowledge of high voltage (5 KV) and low voltage electrical power distribution systems, safety practices and procedures in the isolation of electrical systems, switching controls, lighting systems, power generation, security alarms and detection systems, visual navigational aid systems, electronics, programmable logic controllers, and a general knowledge of electrical theory as applied to the control and operation of airport electrical systems.
- Knowledge of electrical systems and regulations relevant to airports, such as Airfield Lighting regulations, Industrial Electronics, Programmable Logic Controller Systems, Electrical Power Generator, Logic Controls, High Voltage testing and fault locating, electrical safety.
- Knowledge of Workplace Hazardous Materials Information System (WHMIS).
- Ability to work with chemicals such as solvents, coolants, degreasers, etc.
- Ability to read and interpret electrical drawings and schematics, and when required, modify electrical drawings.
- Skills and ability to use various electrical instruments and equipment for inspections and fault finding such as high voltage cable insulation tester, cable locators, volt-ohm-amp meters, voltage testers and other electrical and electronic test equipment.
- Oral and written communication skills to provide reports relating to observed occurrences or circumstances upon which operational decisions will be based.
- Ability to work without technical assistance.
- Ability to commit to actively upholding and consistently practicing personal diversity, inclusion and cultural awareness, as well as safety and sensitivity approaches in the workplace.

Typically, the above qualifications would be attained by:

A Journeyperson Electrical Certificate and Inter-provincial Red Seal Certificate with 2 years of experience as a Maintenance Electrician.

Equivalent combinations of education and experience will be considered.

ADDITIONAL REQUIREMENTS

A Class 5 driver's license

An Airside Vehicle Operators Permit within three months of hire.



Position Security (check one)

- ☐ No criminal records check required
- ☐ Position of Trust – criminal records check required
- ☒ Highly sensitive position – requires verification of identity and a criminal records check

French language (check one if applicable)

- ☐ French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

READING COMPREHENSION:

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

WRITING SKILLS:

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

- ☐ French preferred

Indigenous language: Select language

- ☐ Required
- ☐ Preferred