



## **IDENTIFICATION**

<b>Department</b>	<b>Position Title</b>	
Infrastructure	Apprentice Electrician	
<b>Position Number</b>	<b>Community</b>	<b>Division/Region</b>
33-12825	Hay River	Facilities/South Slave

## **PURPOSE OF THE POSITION**

The purpose of this position is to obtain the combination and work experience required to obtain Journeyman certification. The required work experience will be obtained by assisting in the service and repair of the electrical systems in all Government of the Northwest Territories (GNWT) owned and occupied buildings and works in the South Slave Region, to ensure safe and efficient operation in accordance with the Canadian Electrical Code, NWT Safety Regulations and departmental policies and procedures.

## **SCOPE**

Reporting to the Facilities and Maintenance Coordinator, this position is located in Hay River and is responsible for performing electrical work on GNWT assets in the South Slave Region. The incumbent is assigned preventative maintenance work through system generated work orders and is also responsible for identifying and correcting any electrical problems encountered during the preventative maintenance checks.

This is an Apprenticeship position, working under the direction of a qualified Journeyman electrician.

## **RESPONSIBILITIES**

- Over the course of the apprenticeship, the incumbent will learn to inspect all electrical systems, components and appliances in GNWT buildings and works to identify any potential electrical hazards.**
  - Conducting regular preventative maintenance checks on all electrical systems and components, including controls in accordance with the Maintenance Management System to ensure systems are safe and functioning according to design parameters;

- Diagnose faults in electrical systems, components and appliances and identifies repairs required to correct deficiencies;
  - Completes inspection reports on all deficiencies to initiate work orders for the repairs;
  - Tests emergency generators and switch gear at regular intervals to ensure they are operating properly;
  - Reviews electrical blueprints for new construction and re-modeling and confirms that what is designed is appropriate for the application.
- 2. Over the course of the Apprenticeship, the incumbent will learn to maintain electrical systems, components and appliances in government buildings and works to ensure a safe and efficient operation.**
- Installs, repairs and replaces electrical wiring and lighting systems to ensure safety of users and that systems function properly;
  - Installs and repairs electrical motors and controls, fire alarms systems, clock systems and electrical heating systems and associated HVAC (Heating, Venting and Air Conditioning) controls to achieve maximum efficiency;
  - Installs, repairs and replaces generator components and switch gear to ensure efficient operation;
  - Repairs or replaces unserviceable motors and equipment.
- 3. Over the course of the Apprenticeship, the incumbent will learn to complete records for all maintenance and repairs to electrical systems and components to identify historical costs and work performed on each asset.**
- Identify supplies required to complete jobs and compiles material lists in order to ensure sufficient materials are on hand;
  - Completes work orders for all work assignments indicating materials used, work accomplished, and time required to complete jobs in order to document associated costs;
  - Completes application for electrical permits in order to obtain approval to commence with electrical work.
- 4. Over the course of the Apprenticeship, the incumbent will learn to check electrical work performed by contractors to ensure compliance with plans, specifications and governing code.**
- Conducts inspections of all electrical installations to ensure work requested was completed according to the department's requirements;
  - Identifies any deficiencies in workmanship for the contractor to correct.
- 5. Over the course of the Apprenticeship, the incumbent will learn to service and maintain special electrical and electronic components to ensure they operate safely and continuously in accordance with original design specifications of the equipment.**
- Isolates faulty electronic circuits and replaces circuit boards or components on controls, alarms and sound systems within all GNWT assets to ensure component is functioning within its parameters;

- Service uninterrupted power supply (UPS) systems to ensure continuous monthly inspections.

## **WORKING CONDITIONS**

### **Physical Demands**

Works in awkward positions and carries heavy equipment and tools; substantial intensity for 4 - 6 hours per day.

### **Environmental Conditions**

Exposure to toxic/unpleasant fumes and electrical systems and components. Risk of injury both in the nature of the work and in performing repair work on site. Work may be outside in extreme temperatures. Substantial intensity for 4-6 hours per day.

### **Sensory Demands**

Moderate intensity for 2-4 hours per day. Uses hand/eye coordination when working with color coded electrical wires. Must be focused when working with small electrical components.

### **Mental Demands**

Occasional travel is required to surrounding communities for a few hours at a time. The incumbent will be required to attend school in Fort Smith or Alberta for at least one eight week period.

## **KNOWLEDGE, SKILLS AND ABILITIES**

- Ability to communicate effectively with clients in order to coordinate appropriate times for accessing buildings and performing the required work.
- Ability to keep records in order to document work performed on assets and ensure an adequate supply of materials are on hand to complete work.
- Diagnose faulty equipment and repair it.
- Ability to use a computer.
- Ability to attend Trades Instruction course in Fort Smith or Alberta for at least one 8 week period each year.

### **Typically, the above qualifications would be attained by:**

- Completion of English 20 or 23, Math 20 or 23, Pure Math 20 and at least 10 credits in a Science or the equivalent.
- Successful completion of a Trades Entrance exam.
- Continued employment as an apprentice is conditional upon the completion of the required hours of experience, coursework and exam for each level in the apprenticeship program.
- Class 5 Driver's License
- Related experience is an asset.

## **ADDITIONAL REQUIREMENTS**

### **Position Security**

- 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

### **Aboriginal language:** Choose a language

- Required
- Preferred