

## 1. IDENTIFICATION

<b>Position No.</b> 15-01468	<b>Job Title</b> Electrical Technologist	<b>Supervisor's Position</b> Facilities Manager	
<b>Department</b> Economic Development & Transportation	<b>Division/Region</b> Nunavut Airports Division	<b>Community</b> Rankin Inlet	<b>Location</b> Rankin Inlet

## 2. PURPOSE

<b>Main reason why the position exists, within what context and what the overall end result is.</b>
<p>The Position</p> <p>As a member of the Facilities Support Team, the Electrical Technologist is responsible to provide airport and airfield electrical and navigation systems equipment procurement and maintenance services for Nunavut airports. The position is located in Rankin Inlet and reports to the Facilities Manager.</p>

## 3. SCOPE

<b>Describe the impact the position has on the area in which it works, or if it impacts other departments, the government as a whole, or the public directly or indirectly. How does the position impact those groups/individuals, the organization and/or budgets? What is the magnitude of that impact?</b>
<p>The Department</p> <p>The role of the Department of Economic Development and Transportation (ED&amp;T) is to respond to economic development opportunities in Nunavut, so that Nunavummiut participate fully in the benefits of economic growth by:</p> <ul style="list-style-type: none"> <li>• Supporting the growth of specific economic sectors, including mining, tourism and cultural industries;</li> <li>• Helping to build capacity in our communities including business development; and</li> <li>• Maintaining and expanding a safe, secure and efficient transportation system, including airports, harbours and roads.</li> </ul> <p>The Branch</p> <p>The Transportation Branch has the overall responsibility for the strategic direction for transportation policy, planning and operations in Nunavut.</p> <p>The Division</p> <p>Nunavut Airports Division is responsible for the safe, efficient and effective management and operation of Nunavut's airports (excepting Iqaluit International Airport) to ensure conformity with national and territorial legislation and standards.</p> <p>This position has a general impact on the Department, its Branches and Divisions in the fulfilment of these responsibilities.</p> <p>More direct impacts are on:</p> <ul style="list-style-type: none"> <li>• Planning, design and acquisition of airport systems, aids and equipment;</li> <li>• Technical capability of equipment;</li> </ul>

- Budgets for systems, aids and equipment;
- Divisional airport systems, aids and equipment strategic planning;
- Airport operational readiness;
- Technical and operational advice and emergency repair services;
- Nunavut airports expansion and service delivery ;
- Domestic and international transportation;
- Regional and community transportation capital and social infrastructure;
- The success and perception of the Department of ED&T and the Division across Nunavut in achieving their goals and objectives;
- Interactions with Divisions in each region as programs are planned and delivered as it implements strategies and policies;
- Nunavummiut across the territory who intend to become more economically self supporting through business development, public transportation infrastructure, training and job opportunities;
- Success of businesses across Nunavut and involvement of businesses outside of Nunavut;
- The successful expansion and diversification of Nunavut's economy;
- Programs and budgets of Government of Nunavut departments and crown corporations, Nunavut Land Claims Agreement agencies, federal departments and crown corporations and partnering agencies when entering into joint economic ventures; and
- ED&T's Nunavut Land Claims Agreement economic obligations.

#### 4. RESPONSIBILITIES

**Describe major responsibilities and target accomplishments expected of the position. List the responsibilities that have the greatest impact on the organization first and describe them in a way that answers why the duties of the position are being performed. For a supervisory or management position, indicate the subordinate position(s) through which objectives are accomplished.**

Major responsibilities and accountabilities are as follows.

Provides airport and airfield electrical and navigation systems equipment procurement and maintenance services for Nunavut airports by:

- Facilitating market, product and service research and feasibility studies for strategy, policy and program planning and delivery;
- Participating in development of innovative policies and strategies for community economic development and transportation infrastructure and services;
- Participating in establishing and implementing meaningful goals, objectives and priorities for the Division;
- Delivering programs consistent with legislation, public services processes and standards;
- Building and maintaining effective working, partnering and communications relationships with government, crown corporations, communities and industry to support effective and efficient community economic growth and transportation infrastructure and services;
- Liaising with communities, airport managers, contractors and regional and headquarters staff to determine needs to develop maintenance, repair and life cycle replacement schedules and criteria;
- Developing annual O & M and capital plans and five year capital plans and justification documents for rehabilitation and replacement of systems and aids;
- Compiling and prioritizing maintenance, repair and replacement needs and linking them to ED&T's O & M and capital plans;

- Developing and maintaining standards for operation & maintenance of electrical systems and navigational aids;
- Developing technical specifications for systems and aids;
- Performing site inspections to assess performance, effectiveness and quality of the operation and maintenance of airport electrical systems and navigational aids;
- Submitting and evaluating inspection reports;
- Conducting site inspections of rehabilitation and replacement projects to verify completed work consistent with contracts;
- Monitoring and participating in commissioning of new systems and aids and equipment to confirm satisfactory operation and meeting of technical standards;
- Developing and maintaining individual airport inventories of electrical and navigation systems and equipment assets, technical specifications and their maintenance records, drawings, blueprints and service contracts; and
- Evaluating existing systems and aids assets and operations to determine acceptable retrofits or modifications to procedures.

Provides information and support by:

- Promoting integration and implementation of Government of Nunavut priorities, including the Nunavut Land Claims Agreement and incorporation of Inuit Qaujimajatuqangit (IQ);
- Participating as the Electrical Technologist at intergovernmental and inter-jurisdictional meetings and forums;
- Advising on airport innovative policy and strategic development for the department;
- Interpreting and advising government staff, non government agencies, communities, the public and industry on departmental legislation, policies, strategies, programs, guidelines, services and procedures;
- Preparing and delivering presentations to Nunavummiut, community groups, industry and other organizations;
- Providing technical expertise and functional direction to ED&T staff and airport managers and staff;
- Coordinating provision of general repair services and providing direct emergency electrical repair services;
- Participating in identification, development and provision of training for systems and aids maintenance staff;
- Maintaining sources of information for new systems, aids and equipment technology;
- Analyzing systems and aids capabilities and utilization and developing new system and aids designs in consultation with technical staff, stakeholders and ED&T staff;
- Reviewing and evaluating systems and aids drawings, technical specifications and cost estimates against technical and operational needs and ED&T objectives;
- Recommending acceptance of capital equipment and services performed;
- Chairing technical and operational working committees and groups;
- Promoting increased community management and operation of community airports;
- Preparing backgrounders relating to electrical systems and aids; and

Performs other duties as assigned.

## 5. KNOWLEDGE, SKILLS AND ABILITIES

Describe the level of knowledge, experience and abilities that are required for satisfactory job performance.

Knowledge identifies the acquired information or concepts that relate to a specific discipline. Skills describe acquired measurable behaviours and may cover manual aspects required to do a job. Abilities describe natural talents or developed proficiencies required to do the job.

These requirements are in reference to the job, not the incumbent performing the job.

Working knowledge of:

- Airfield and airport electrical systems and aids operations;
- Technical standards of systems and aids;
- System and aids failure diagnosis and repair techniques;
- Systems and aids operational inspection and evaluation techniques;
- Airport planning, analysis and design methods,
- Engineering concepts and terminology;
- Structure and systems design;
- Strategic and business planning;
- Acts, Regulations, policies and procedures governing airport operations;
- Civilian and military aviation operations;
- Adult Education theories and techniques;
- Program development, implementation, monitoring and evaluation;
- Basic Contract law and principles;
- Canadian and international air transportation industry and policies;
- Air Transportation industry, policies, programs and challenges in Nunavut;
- Emergency planning and response;
- Project management;
- Human and financial resource management;
- Business development strategies and practices;
- Government sectors in Nunavut;
- The Nunavut Land Claims Agreement;
- Inuit Qaujimajatuqangit and the Nunavummi Nangminiaqqtunik Ikajuuti Policy; and
- The goals, aspirations and priorities of Nunavummiut.

This knowledge is normally acquired through diploma in Electrical Engineering Technology or an Electrician's Journeyman Certificate with an Inter-Provincial Red Seal and recent experience, however, it may be acquired through a varied combination of education, training and recent experience.

Conditions of Employment:

- Criminal record check;
- Level II Secret security clearance;
- Airside Vehicle Operator's Permit;
- Airport Restricted Area Access Clearance; and
- Aeronautical Restricted Radio Telephone Operators License.

Professional Accreditation

- A member of or eligible to be a member of a professional association such as the Association of Science and Engineering Technologists of Alberta (ASET).

**Skills:**

- Read and interpret blueprints and maps;
- Data storage and management system operation;
- Complete emergency electrical repairs to airport systems and aids and equipment;
- To interpret and apply complex legislation, regulations, policies and operational and design standards;
- Above average computer skills utilizing Microsoft Outlook, Access and Word;
- Strong Power Point and Excel software skills;
- Use of the Internet as a research tool
- Above average English oral and written communications skills to convey information so that it can be understood by the recipients;
- Proficiency in speaking Inuktitut or Inuinnaqtun is an asset; and
- Comfort in working and living in a cross cultural environment.

**Abilities:**

- Adaptable - open to change in order to quickly respond to changing priorities;
- Analytical thinker - identifies elements of a problem or situation and develops acceptable solutions;
- Co-operative team member - works as a member of a team to attain organizational goals;
- Demonstrates initiative - works independently and completes assigned tasks seeking additional work without prompting;
- Effective listener - hears what is being said, understands the content and responds in a constructive manner;
- Honest;
- Integrous;
- Innovative - develops and implements new forward thinking concepts;
- Persuasive - influences or persuades others to take a specific course of action or adopt a new method;
- Practices good judgment - provides an effective measured response to a situation;
- Practices self control - responds in a constructive manner in stressful situations.
- Results oriented - strong work ethic; and
- Shows leadership - effectively leads individuals and teams to reach common goals.

**6. WORKING CONDITIONS**

List the unavoidable, externally imposed conditions under which the work must be performed and which create hardship for the incumbent. Express frequency, duration and intensity of each occurrence in measurable time (e.g. every day, two or three times a week, 5 hours a day).

**Physical Demands**

Indicate the nature of physical demands and the frequency and duration of occurrences leading to physical fatigue or physical stress.

Work normally performed in an office and airport facility setting may result in:

- Daily short response times to workload varying from simple to complex;
- Longer than normal work days two or three times a week;
- Daily work load from co-workers, clients and the public;
- Daily sitting at a desk or in meetings for extended periods;
- Daily extended periods of keyboarding; and

- Daily report reading or looking at a computer monitor for many hours.

Work performed away from the office may result in exposure to:

- Walking over uneven terrain and riding in vehicles during site inspections;
- Twice monthly travel in small aircraft in confined spaces for 2-4 hours with no or little chance for relief;
- Larger aircraft monthly flights that exceed 4 hours with limited opportunity for relief; and
- Weekly participation at and sitting at meetings after normal working hours and/or during weekends when listening to and responding to issues over many hours.

### Environmental Conditions

**Indicate the nature of adverse environmental conditions to which the jobholder is exposed, and the frequency and duration of exposures. Include conditions that increase the risk of accident, ill health, or physical discomfort.**

Conditions include:

- Quarterly one day duration electrical systems or aids repairs, sometimes in severe cold or wet and windy weather conditions;
- Annual site inspections for each Nunavut airport, one day in duration, sometimes in severe cold, or wet and windy weather conditions;
- Exposure to operating aircraft, maintenance and airline servicing vehicles during site inspections;
- Frequent exposure to winter temperature extremes in a harsh environment when temperatures drop to in excess of -50C during facility inspections;
- Winter blizzards lasting for days disrupting work and travel schedules;
- Frequent exposure to mosquitoes in summer months when travelling or conducting site inspections out of the office; and
- Exposure to constant loud noises and vibrations when flying in aircraft and when near operating vehicles and aircraft during inspections.

### Sensory Demands

**Indicate the nature of demands on the jobholder's senses. These demands can be in the form of making judgments to discern something through touch, smell, sight, and/or hearing. It may include concentrated levels of attention to details through one or more of the incumbents' senses.**

Demands are:

- Frequent concentrated sight and hearing use to determine systems and aids operations during repairs or systems audits;
- Frequent sight and hearing use to determine aircraft and vehicle threats while on inspections;
- Understanding radio communications during times of loud conflicting background noise while on airport inspections;
- Extended periods of reading reports or looking at a computer screen;
- Frequent extended daily periods of keyboarding; and
- Extended periods of observation during presentations to sense body language and other non-verbal indicators.

**Mental Demands**

**Indicate conditions within the job that may lead to mental or emotional fatigue that would increase the risk of such things as tension or anxiety.**

Demands are:

- Day to day operations;
- Conducting critical emergency repairs and intensive audits of operational procedures and systems and aids to ensure safety at the airport;
- Investigations of breaches of legislation or operating procedures and enforcing compliance to legislation;
- Extended travel from home which may impact on family or household;
- Frequent hectic extended work hours to respond to emergencies, honour deadlines and attend meetings;
- Extended periods of concentrating on and responding to many complex and ever evolving issues with individuals, communities and committees; and
- Working for months during seasonal continuous darkness or light encountered in northern latitudes.

**7. CERTIFICATION**

<p>_____</p> <p>Employee Signature</p> <p>_____</p> <p>Printed Name</p> <p>_____</p> <p>Date</p> <p>I certify that I have read and understand the responsibilities assigned to this position.</p>	<p>_____</p> <p>Supervisor Title</p> <p>_____</p> <p>Supervisor Signature</p> <p>_____</p> <p>Date</p> <p>I certify that this job description is an accurate description of the responsibilities assigned to the position.</p>
<p>_____</p> <p>Deputy Head Signature</p> <p>_____</p> <p>Date</p> <p>I approve the delegation of the responsibilities outlined herein within the context of the attached organizational structure.</p>	

## 8. ORGANIZATION CHART

Please Attach Organizational Chart indicating incumbent's position, peer positions, subordinate positions (if any) and supervisor position.

**“The above statements are intended to describe the general nature and level of work being performed by the incumbent of this job. They are not intended to be an exhaustive list of all responsibilities and activities required of this position”.**