



#### **IDENTIFICATION**

Department	Position Title	
Infrastructure	Operating Engineer	
Position Number	Community	Division/Region
33-5390	Yellowknife	North Slave Region

#### **PURPOSE OF THE POSITION**

The Operating Engineer is responsible for the safe, effective, and efficient operation, repair and maintenance of plumbing, heating, ventilation, air conditioning, refrigeration and all other mechanical equipment in all Government of Northwest Territories (GNWT) occupied and or leased buildings and facilities in the Yellowknife and North Slave Area in accordance with GNWT acts and regulations, National and Municipal Codes, and departmental policies and procedures.

#### **SCOPE**

As part of the Facilities Management Division of the North Slave Region of the Department of Infrastructure, the position is one in a team of Operating Engineers who report to the Chief Operating Engineer, and receive monthly Maintenance Management System reports from the Operating Engineer Lead Hand for operational activities. This position is located in Yellowknife and provides the primary operational, repair and maintenance support on approximately 485M worth of assets in Yellowknife, Ndilo, Dettah, Behchokò, Whatì, Gamètì, Wekweètì, and Łutselk'e.

The regional staff is responsible for the maintenance and operations of 7 highly complex buildings and 16 moderately complex buildings in a total portfolio of approximately 150 buildings. In addition the incumbent travels for between 2 and 4 days to other communities on a monthly basis to provide Operating Engineering and Settlement Maintainer services to approximately 6 buildings in each community, i.e. School, Health Centres, Tank Farms, and Air Terminal Buildings.

The position works in high security environments such as Correctional Facilities, the Legislative Assembly building, and airports. Within the scope of service these positions carry direct responsibility for the safety, security and comfort of building occupants.

The scope of activities undertaken includes:

- Operations of building heating and mechanical equipment.
- Monitoring and maintaining indoor air quality and comfort.
- Monitoring, inspecting, testing, repairing, maintaining, equipment which supplies electricity, steam, heat, refrigeration, air conditioning, compressed air, gas, and ventilation within a building.
- Schedules and performs all minor and major repairs on all heating and mechanical equipment.
- Adjusting and using Computerized Direct Digital Control (DDC) systems to control air, heat, and lighting and ventilation equipment in buildings.
- Initiation and management of Contracts and Contract Performance up to assigned spending authority starting at \$5000.
- Coordinate and Monitor contracted services in assigned buildings.

The job holder will also be required to provide 24 hour standby one full week, including weekends, every nine weeks. This position is deemed continuous and must always be available for work during the GNWT shutdown period around Christmas, and must coordinate vacations and accept restrictions in scheduling around Christmas and New Year's. The incumbent must be available to work outside of normal business hours in case of emergency.

The job holder will be required to ensure that knowledge is maintained and increased in this position through continual training and exposure to new or specific technology, systems, equipment, standards and processes.

## **RESPONSIBILITIES**

### **1. Operates, monitors and reports on mechanical operations and the performance of building systems, and takes corrective action to ensure safe, efficient and effective operations.**

- Inspects buildings mechanical, heating, and ventilation systems, and equipment housed within assigned buildings to ensure safe, reliable and efficient operations as directed by the Maintenance Management System (MMS) Manual and as per code.
- Applies prescribed building and equipment legislated inspection, calibration and maintenance procedures as per the MMS.
- Manages and operates building power plants in accordance with *GNWT Boilers and Pressure Vessels Act* and Regulations which includes combustion analysis, boiler testing and addition of chemicals to prevent corrosion on boilers and equipment.
- Adjusts boilers to ensure energy efficient operations.
- Completes computerized assessments of buildings heating problems with Direct Digital Control (DDC) systems.

- Identifies and diagnoses problems and potential problems with buildings, equipment, systems and DDC systems.
  - Reports the outcome of inspection and initiates required maintenance on a work order.
  - Completes work orders and records information on computerized tracking system.
- 2. Coordinates, services, and repairs regular and legislated preventative maintenance tasks on assigned equipment and systems to ensure safe and efficient operation and longevity of GNWT assets.**
- Tests, maintains, and reports on alarm systems and fire protection equipment, including sprinkler systems, smoke alarms, and fire extinguishers, as per the *National Fire Prevention Act* to ensure proper operations.
  - Tests and maintains life safety equipment, such as harnesses and ladders.
  - Coordinates, services and repairs equipment, systems and building structures to ensure an effective and quick return of operations for all required repairs on GNWT assets.
  - Services and repairs wood pellet boiler systems and wood pellet silo feed systems.
  - Participates in identifying asbestos and mould testing, and performs small-section remediation as authorized.
  - Performs carpentry checks of items such as functions of doors and windows.
  - Responds to urgent and/or emergency situations including stabilization of failures, determination of cause and coordination of corrective actions.
  - Replaces or refurbishes defective components on all mechanical equipment.
  - Initiates and manages contracts and contract performance through the repair process.
  - Reviews work schedules with contract workers.
  - Completes work orders and records information on computerized tracking system.
- 3. Maintains, adjusts, and repairs pneumatic and electronic Heating Ventilation and Air Conditioning (HVAC) control systems and equipment to ensure proper operation.**
- Provides onsite support to Direct Digital Control (DDC) & Environmental Management Control Systems (EMCS) suppliers for remote computerized diagnostics and troubleshooting.
  - Inspects, services, and repairs.
  - Adjusts settings and schedules on the DDC and EMCS systems.
  - Assists the DDC & EMCS supplier technicians with the scheduled preventative maintenance and program updates.
  - Identifies and reports needed maintenance and repairs and recommends solutions.
  - Monitors contract workers.
  - Completes work orders and reports.
- 4. Carries the primary decision role in the absence of authority during evening, nights and weekends for emergency responses. All of these responses will present situations where there is a threat of injury, property damage, security breach or a decrease in client comfort.**
- Provides 24 hours standby for one full week including weekends every 9 weeks.

- When on standby duty, performs functions to ensure a quick response after hours to emergency calls and to comply with regulation for units requiring after hours maintenance. Performs diagnostics and coordinates repairs over the phone for emergency responses in communities.
- Performs scheduled mechanical checks as per the *Pressure Vessels Act*.
- Responds to urgent and emergency calls and alarms (Mechanical, Fire, Intrusion) including stabilization of failures, determination of cause and coordination of corrective actions before the next regular shift as necessary.

**5. Travels approximately 2 to 4 days per occurrence to one of the North Slave communities on a regular monthly basis to perform maintenance on community buildings to ensure safe, efficient and effective operations of buildings in those communities. Travels to communities on an emergency basis as required.**

- Makes travel and accommodation arrangements.
- Monitors operations and performance of building systems.
- Performs preventative maintenance checks, repairs and services on assigned equipment and building systems.
- Represents the Department in the community and liaises with tact and diplomacy.
- Develops courteous rapport with community representatives.
- Reports trip findings to Community Coordinator and supervisor.

## **WORKING CONDITIONS**

### **Physical Demands**

Over 50% of time is spent at substantial work such as climbing and/or balancing, stooping, kneeling, crouching and/or crawling, reaching, or handling. The position involves lifting from 10 to 25 kg on a regular basis and heavier weights from time to time.

### **Environmental Conditions**

Over 50% of the time this position is exposed to substantial fumes, temperature, toxic chemicals, loud noise, infectious substances and scalding steam while maintaining and servicing buildings and systems. The position involves outside work where temperatures are extreme for several months a year.

### **Sensory Demands**

Over 50% of this position requires a moderate amount of use of multiple senses such as feeling, hearing, and seeing (in terms of acuity far and near, depth perception, accommodation, colour vision and field of vision) when monitoring, inspecting, and/or repairing equipment.

### **Mental Demands**

The position requires the incumbent to be on 24 hour standby one full week including weekends approximately every nine weeks. As well the incumbent will be on duty travel 2-4 days per month to service different communities in the region, and will often work alone.

The incumbent may occasionally encounter dissatisfied clients. While working at the correctional facility, there is uncertainty in knowing what situations may be encountered when working in proximity of inmates.

### **KNOWLEDGE, SKILLS AND ABILITIES**

- Knowledge of pellet, steam and hydronic boiler systems, HVAC controls, Direct Digital Control Systems, Electrical Systems, Energy Management & Control systems, Plumbing, Ventilation Systems, Oil Burner Maintenance and Repair, Sprinkler and Alarm Systems.
- Knowledge of safety procedures, confined spaces, asbestos and mould identification, and abatement is required.
- Knowledge of various codes and acts such as the *Boiler and Pressure Vessels Act*, *National Fire Prevention Act*, National fire code, National Building code, *Public Health Act* and other applicable regulations as they relate to the status of buildings and equipment.
- Basic knowledge of other building trades, such as plumbing, carpentry, and electrical
- Analytical thinking and information seeking skills are required to understand complex technical issues, determine cause of problems and system failures to ensure proper corrective actions occur with an understanding of the impacts on the equipment, systems and clients.
- Ability to read and interpret blueprints and operation manuals.
- Ability to communicate and effectively interact with clients and contractors.
- Ability to listen attentively, understand and respond appropriately and effectively with individuals and groups both verbally and in writing.
- Skills to effectively use computers, controls-software, diagnostic equipment and hand/power tools that are required to carry out building operations and repairs and services on electrical, electronic and mechanical systems and equipment, along with building structure finishes.
- Ability to maintain and acquire knowledge of new specific technology, systems, equipment, standards and processes
- Ability to work in a cross-cultural environment.

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

Completion of a 4th Class Power Engineering certification, or a Journeyperson Certificate in a Mechanical Trade and two years of experience in the building maintenance/plant management field.

### **ADDITIONAL REQUIREMENTS**

The incumbent requires a Class 5 driver's license.

The incumbent must complete basic security training as required and provided by the North Slave Correctional Facility.

### **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