



IDENTIFICATION

Department	Position Title	
Infrastructure	Operating Engineer	
Position Number	Community	Division/Region
33-0570	Fort Smith	Facilities/South Slave

PURPOSE OF THE POSITION

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

SCOPE

Located in Fort Smith, the Operating Engineer reports to the Facilities and Maintenance Coordinator.

As part of the Facilities Management Division of the Fort Smith Regional office, the Operating Engineer has responsibility for 2 moderately complex buildings in a total portfolio of approximately 20 buildings, and occasionally travels throughout the Fort Smith Region to provide Operating Engineering services as required.

Scope of activities undertaken includes:

- Operations of building heating and mechanical equipment.
- Monitoring, inspecting, testing, repairing, maintaining, operating and utilizing DDC 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 DDC systems to control air, heat, lighting, and ventilation equipment in buildings.
- Reviews work orders with the various contractors in incumbent's designated buildings and monitors work.

- Monitoring and maintaining indoor air quality and comfort.
- Initiation of Contracts and Contract Performance up to assigned spending authority starting at \$5000.
- Works in various secure environments such as young offender's facilities, adult correctional facilities, and airports.
- The nature of the performance of duties in this position gives the incumbent access to information, equipment and supplies that would not normally be available to staff (e.g. setting up and maintaining security surveillance systems, electronic locking systems, pharmacy systems, etc.)

RESPONSIBILITIES

1. 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 systems, heating systems, ventilation systems, and equipment housed within assigned buildings as directed by the Maintenance Management System (MMS) Manual and as per code.
- Applies prescribed building and equipment legislated inspection and maintenance procedures as per the MMS.
- Conducts boiler water testing and adds chemicals to prevent corrosion.
- Conducts combustion analysis on boilers.
- 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 inspection and maintenance initiatives on work order.
- Initiates response to urgent and/or emergency situations - evaluates, stabilizes, and reports to supervisor.
- Completes work orders and records information on computerized tracking system.

2. Services and repairs buildings, equipment, and systems as part of regular and legislated preventative maintenance to ensure their safe and efficient operation as well as their most efficient and economic life.

- Services and repairs boilers, humidifiers, air handling units, dampers, and related control systems and components.
- Services and repairs Wood Pellet Boiler systems and wood pellet silo feed systems.
- Lubricates equipment.
- Replaces (worn-out components) belts, pulleys, and filters.
- Checks and replaces mechanical insulation if required.
- Adjusts air/oil ratio on oil burner to ensure efficiency.
- Replaces or refurbishes defective components on all mechanical equipment.
- Initiates contract repair process.

- Reviews work schedules with contract workers.
 - Performs minor HVAC, (Heating, Venting and Air Conditioning) plumbing and mechanical equipment repairs.
 - 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 DDC & EMCS (Energy Management and Control System) suppliers for remote 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 system updates.
 - Identifies and reports needed maintenance and repairs.
 - Monitors contract workers.
 - Completes work orders and reports.
- 4. Tests alarm systems and fire sprinkler systems as per the *Northwest Territories Act* to ensure proper operation.**
- Conducts legislated monthly inspections, and testing of equipment and systems.
 - Identifies and reports needed maintenance and repairs.
 - Identifies and reviews work with contract workers.
 - Enters reports into logbook.
- 5. Performs Duty Officer functions to ensure a quick response after hours and to comply with regulations for units requiring after hours maintenance.**
- Assumes standby role for a one-week period on a regular rotation.
 - Performs scheduled mechanical checks as per the *Pressure Vessels Act*.
 - Responds to all emergency calls and alarms while on standby.
 - Evaluates, corrects, or stabilizes the situation when called out.
 - Repairs problem if required before next regular shift.
 - Calls supervisor if beyond scope of practice.
- 6. Provides other duties**
- Repairing commercial kitchen appliances;
 - Repairing commercial refrigeration and freezer plant
 - Maintain a bench stock of critical components for systems under control, such as pump motors, burners, burner nozzles, control relays, panel breakers, pump couplings etc.

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 substantially exposed to fumes, temperature, chemicals, loud noise, and scalding hot water, while maintaining and servicing buildings and systems.

The incumbent may be exposed to infectious substances and toxic substances when working with sewage systems.

The position involves outside work where temperatures are extreme for several months a year.

Sensory Demands

Over 25% of this position requires a moderate amount of feeling, hearing, and seeing (in terms of acuity far and near, depth perception, accommodation, colour vision and field of vision).

Mental Demands

The position requires disruption of lifestyle while the incumbent is on 24 hour standby one full week, including weekends, every three weeks. As well the incumbent is required to travel overnight occasionally to communities and to work alone.

While working at institutional type occupied buildings, the incumbent is required to be on continuous alert as they are exposed to risk of possible physical confrontations. Further mental demands are placed on the incumbents when dealing with irate clients.

The incumbent is deemed 'Essential Services' and must always be available for work during mandatory days off, and must coordinate vacations and accept restrictions in scheduling around Christmas and New Year's.

KNOWLEDGE, SKILLS AND ABILITIES

- Extensive knowledge of 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 several *Acts* and regulations as they relate to the status of buildings and equipment.

- Knowledge of other Building Trades and the ability to read and interpret blueprints and schematic drawings, perform minor repairs, and understand and apply mathematical concepts.
- Skilled in problem solving, troubleshooting, form and spatial perception, manual dexterity, special testing equipment use, and monitoring contractor performance;
- Proficient in various software applications, report writing and both verbal and written communication(s).
- Ability to work in a cross-cultural environment.
- Ability to work in demanding situations with multiple priorities.

Typically, the above qualifications would be attained by:

- Completion of Grade 10 and a minimum certification as a 4th Class Operating Engineer, with 4 years of experience in the building maintenance field. The skills are normally acquired through experience working in a variety of building settings and completion of training or experience in each skill area;
- Must possess a Class 5 driver's license.
- As this is a position of trust involving work in health centres, schools, RCMP and correctional facilities, a clear enhanced criminal records check must be presented to the employer.

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