



**Code: 7741**

Family: Operational Engineering  
Service: Operation and Construction  
Group: Steam and Operation Engineering  
Series: Stationary Plant Operation

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## **CLASS TITLE: OPERATING ENGINEER - GROUP C**

### **CHARACTERISTICS OF THE CLASS**

Under immediate supervision, operates and maintains steam turbine and electric motor-driven pumps, high pressure boilers, fans, and heating and air conditioning units in City buildings, water purification plants, heating and refrigeration plants, and pumping stations, and performs related duties as required

### **ESSENTIAL DUTIES**

- Operates and maintains high pressure boilers, steam and electric turbines, fans, air compressors, and pumps by reading gauges and adjusting valves to maintain a constant flow of water supply to the heating element
- Performs regular, scheduled maintenance on boilers and heaters to ensure that equipment is maintained in operating condition
- Inspects, maintains and repairs heating, ventilation, and air conditioning units
- Cleans, oils, and lubricates pumps, motors, and related mechanical equipment
- Adjusts equipment, machinery, and valves to prevent malfunctions and regulates the operation of steam and water units
- Reads gauges and charts to ensure that proper speeds, pressures, and temperatures are maintained
- Regulates the appropriate level of building heat, ventilation, and air conditioning temperatures
- Visually inspects joints and pipe connections in order to identify leaks
- Replaces filters on ventilation equipment
- Reports equipment malfunctions, leaks, abnormal readings, or other equipment and facilities problems to supervisor
- Maintains general cleanliness of assigned work area
- Maintains a monthly productivity report

**NOTE:** *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

### **MINIMUM QUALIFICATIONS**

#### **Education, Training, and Experience**

- A combination of education, training, and experience suitable to obtain a Stationary Engineer's license

#### **Licensure, Certification, or Other Qualifications**

- A valid Stationary Engineer's license issued by the City of Chicago is required
- Certification as a Universal technician as required by 40CFR part 82 subpart F of the EPA
- Some positions may require a valid State of Illinois Driver's License depending on department assignment

### **WORKING CONDITIONS**

- General industrial and plant environment
- Exposure to loud noise
- Exposure to extreme temperatures
- Exposure to hazardous materials, chemicals, fumes or dust
- Exposure to oily or wet environment

### **EQUIPMENT**

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator)
- Tools used in the repair and maintenance of heating and cooling equipment
- Personal protective equipment (e.g., hard hat, shoes, glasses, gloves, vest, pads)
- Safety devices or equipment (e.g., cones, barricades, scaffolding, ropes)
- Testing and monitoring equipment

### **PHYSICAL REQUIREMENTS**

- Substantial lifting (up to 80 pounds) is required
- Ability to stand and walk for extended or continuous periods of time
- Ability to quickly bend, stretch, twist, or reach out with one's body, arms, and/or legs
- Ability to move one's hands and arms to grasp or manipulate objects
- Ability to climb staircases, ladders, and/or step stools
- Ability to operate applicable hand tools, power tools, and equipment

### **KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS**

#### **Knowledge**

Moderate knowledge of:

- \*safety principles, methods, practices, and procedures
- routine testing and inspection activities related to boiler operations
- \*use of steam, electric heating, and cooling equipment
- \*tools and instruments used in repairing heating and cooling equipment
- operation of switches, circuit breakers, motors, and pumps

Some knowledge of

- building and facility maintenance and repair methods, practices, and procedures

Knowledge of applicable City and department policies, procedures, rules, and regulations

Other knowledge as required for successful performance in the Stationary Fireman classes

#### **Skills**

- \*ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- \*CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems

- \*EQUIPMENT MAINTENANCE - Perform routine maintenance on equipment and determine when and what kind of maintenance is needed
  - EQUIPMENT SELECTION - Determine the kind of tools and equipment needed to do a job
  - \*OPERATION MONITORING - Watch gauges, dials, or other indicators to make sure a machine is working properly
  - \*TROUBLESHOOTING - Determine causes of operating errors and decide what to do about it
- Other skills as required for successful performance in the Stationary Fireman class

**Abilities**

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
  - SPEAK - Communicate information and ideas in speaking so others will understand
  - COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
  - WRITE - Communicate information and ideas in writing so others will understand
  - RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- Other abilities as required for successful performance in the Stationary Fireman class

**Other Work Requirements**

- INITIATIVE - Demonstrate willingness to take on job challenges
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks

Other characteristics as required for successful performance in the Stationary Fireman class

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All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

\* May be required at entry.

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City of Chicago  
Department of Human Resources  
April, 2013

Working Conditions updated: August, 2016