



**Code: 7743**

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 A**

### **CHARACTERISTICS OF THE CLASS**

Under supervision, supervises the operation and maintenance of steam and electric turbines, pumps, high pressure boilers, fans, and air compressors in City buildings, water purification plants, heating and refrigeration plants, and pumping stations, and performs related duties as required

### **ESSENTIAL DUTIES**

- Maintains and operates high and low pressure boilers, motors, pumps, and heating, ventilation and air conditioning systems
- Cleans, oils, and makes repairs and replacements on pumps and other mechanical equipment to ensure proper functioning and safety
- Supervises and performs diagnostic and repair work on electrical fixtures and equipment
- Supervises labor and trades personnel engaged in performing building maintenance activities
- Reads meters and gauges at specified intervals to verify operating conditions and record readings
- Requisitions equipment and materials needed to complete necessary repairs
- Inspects fire prevention equipment for proper operation in case of an emergency
- Assists with or supervises the repair and adjustment or replacement of boiler and pumping equipment
- Completes time sheets and daily operating reports
- Coordinates maintenance and trade personnel engaged in building maintenance activities
- Maintains and wears Self Contained Breathable Air (SCBA) units used during possible HAZMAT incidents, as required
- Receives, stores, and/or handles industrial chemicals (e.g., liquid chlorine, fluorosilicic acid, aluminum sulfate liquid), as required
- Oversees work performed by private vendors and contractors on boilers, motors, pumps and heating, ventilation and air conditioning systems, as required

**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**

- Two years of work experience in the operation and maintenance of high pressure boilers, pumping units, and related mechanical equipment

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

- A valid Stationary Engineer's license as 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)
- Computers and peripheral equipment (e.g., personal computer, computer terminals, hand-held computer, scanner)
- Two-way radio
- Tools used in the repair and maintenance of heating and cooling equipment
- Personal protective equipment (e.g., hard hat, shoes, glasses, gloves, vest, pads)
- 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**

Considerable knowledge of:

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

Moderate knowledge of:

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

Some knowledge of:

- supervisory methods, practices, and procedures
- maintenance control center operations and functions

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

Other knowledge as required for successful performance in the Operating Engineer - Group C class

### **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
- \*COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- INSTRUCTING - Teach others how to do something
- \*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 Operating Engineer - Group C 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
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense

Other abilities as required for successful performance in the Operating Engineer - Group C class

### **Other Work Requirements**

- INITIATIVE - Demonstrate willingness to take on job challenges
- LEADERSHIP - Demonstrate willingness to lead, take charge, and offer opinions and direction
- 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 Operating Engineer - Group C 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