



Code: 6053

Family: Technical Engineering
Service: Operation and Construction
Group: Engineering, Designing, and Structural
Series: Mechanical Engineering

CLASS TITLE: MECHANICAL ENGINEER III

CHARACTERISTICS OF THE CLASS

Under general supervision, the class performs fully functional professional mechanical engineering related to the design, installation, maintenance and inspection of mechanical equipment and systems, and performs related duties as required

ESSENTIAL DUTIES

- Inspects mechanical systems and equipment using appropriate instrumentation and making engineering calculations to check efficiency and proper operation and documents findings
- Calibrates and monitors mechanical equipment instrumentation to ensure accurate readings and safe operation of equipment
- Prepares statistical calculations of calibration results and prepares data for use in resource allocation and operational reports
- Writes specification for the procurement of mechanical equipment and instrumentation
- Performs acceptance tests and maintenance examinations of mechanical equipment in city facilities to ensure performance standards are met and makes recommendations for improvement
- Prepares material and cost estimates and project status reports for the installation or repair of mechanical equipment
- Manages medium design and construction projects and reviews technical drawings, proposed changes and contract amendments prepared by architects, engineers and contractors for accuracy and compliance with municipal codes, design standards and project specifications, and submits recommendations for changes to supervisor for review
- Confers with engineering consultants on matters relating to code requirements for mechanical equipment
- Coordinates and monitors work of contractors ensuring minimal disruption to operations and compliance with city building codes
- Reviews engineering changes, contract amendments and submits recommendations to supervisor for review
- Reviews payment vouchers, invoices and pay applications submitted by engineering and construction firms ensuring payment requests reflect completed work according to contract specifications
- May assist in training and providing guidance and technical support to lower level engineers
- May assist with the preparation of grant applications for various energy efficient features and programs

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

Graduation from an accredited college or university with a Bachelor's degree in Mechanical Engineering or a directly related field of engineering, plus one year of mechanical engineering work experience, or an equivalent combination education, training and experience, provided that the minimum degree requirement is met.

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- General office environment and water pumping stations
- May be exposed to inclement weather and extreme temperatures

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)
- Mechanical calibration and testing equipment, AutoCAD system

PHYSICAL REQUIREMENTS

- Ability to access mechanical systems and equipment during various stages of installation or repair

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *applicable mechanical engineering theories, principles, methods, and procedures
- *mechanical system installation and maintenance methods
- * use of mechanical and hydraulic equipment
- *procedures and methods for monitoring and maintaining related equipment and instruments
- *applicable computer software packages and applications
- *project management principles, methods, practices and procedures

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

Other knowledge as required for successful performance in the Mechanical Engineer II class

Skills

- ACTIVE LEARNING – Understand the implications of new information for both current and future problem-solving and decision-making
- *ACTIVE LISTENING - Give full attention to what other people are saying, taking time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times

- *SYSTEMS ANALYSIS - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes
- *QUALITY CONTROL ANALYSIS - Conduct tests and inspections of products, services, or processes to evaluate quality or performance
- *TROUBLESHOOTING - Determine causes of operating errors and decide what to do about it

Other skills as required for successful performance in the Mechanical Engineer II 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
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns
- REACH CONCLUSIONS - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

Other abilities as required for successful performance in the Mechanical Engineer II class

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.

City of Chicago
Department of Human Resources
July, 2015