



Code: 2081
Family: Technical Engineering
Service: Health and Welfare
Group: Inspectional
Series: Energy and Environmental Protection

CLASS TITLE: ENVIRONMENTAL ENGINEER II

CHARACTERISTICS OF THE CLASS

Under supervision, performs fully functional professional environmental engineering work, enforcing federal, state, and municipal environmental protection laws, and performs related duties as required

ESSENTIAL DUTIES

- Conducts extensive surveys and detailed inspections of a broad variety of sites (e.g., property development, industrial, waste disposal) for compliance with environmental protection laws
- Collects samples of suspect materials and submits them for laboratory analysis
- Characterizes toxicity levels of samples according to established guidelines
- Identifies compliance violations and issues citations
- Discusses violations found and provides technical assistance and advice to businesses in correcting non-compliance issues, including the development of cost estimates for environmental remediation
- Conducts follow-up inspections to ensure violations are corrected
- Reviews permit applications (e.g., construction, demolition debris) and plans for the installation of industrial processing equipment and control devices for compliance with environmental protection laws and regulations
- Performs engineering calculations to determine the emission rates of various pollutants and adjustments needed to ensure emission rates are at acceptable levels under the law
- Works with intergovernmental representatives at field emergencies and environmental incidents
- Participates in meetings with plant managers to draft pollution prevention and corrective measures
- Prepares site evaluation reports summarizing findings of environmental inspections and assessments
- Provides technical assistance to City departments and the private sector regarding environmental protection standards and guidelines
- Manages recycling and solid waste reduction projects
- Testifies in court as an expert witness on environmental issues
- Maintains and calibrates equipment and instrumentation

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 Environmental Engineering or a directly related field, plus one year of work experience in environmental engineering, or an equivalent combination of education, training, and experience provided that the minimum degree requirement is met

Licensure, Certification, or Other Qualifications

- A valid State of Illinois driver's license is required.

WORKING CONDITIONS

- General office environment
- Exposure to outdoor weather conditions
- Some exposure to industrial fumes and hazardous chemicals

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)
- Personal protective equipment (e.g., hard hat, shoes, glasses, gloves)
- Scientific calculators
- Testing and monitoring equipment (e.g., Geiger meters)

PHYSICAL REQUIREMENTS

- Ability to walk and stand for extended or continuous periods of time

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *environmental hazards and related abatement methods
- *environmental inspection, research, and analysis methods and techniques
- *applicable safety principles, methods, practices, and procedures
- *applicable environmental engineering methods, theories, principles, and procedures
- applicable federal, state, and local laws, regulations, and guidelines

Some knowledge of:

- applicable computer software packages and applications

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

Other knowledge as required for successful performance in the Environmental Engineer class series

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
- **CRITICAL THINKING** - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems

- PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions

Other skills as required for successful performance in the Environmental Engineer class series

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 MATHEMATICALLY - Choose the right mathematical methods or formulas to solve a problem
- 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 Environmental Engineer class series

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
April, 2017
DL added March, 2021