



Code: 5689

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

CLASS TITLE: WATER CONSERVATION ENGINEER

CHARACTERISTICS OF THE CLASS

Under direction, researches and recommends water conservation system improvements and programs, and performs related duties as required

ESSENTIAL DUTIES

- Monitors and evaluates the effects of ongoing water conservation programs including field services, metering, inspections, and repairs
- Reviews and analyzes reports (e.g., consumption patterns, leakages, illegal hydrant use, illegal waste deposits into clean water sources) to determine patterns and changes in water usage and waste
- Reviews and analyzes reports of field testing results, water meter readings, meter replacement programs, and system repairs to determine their impact on water conservation efforts
- Recommends system improvements and water conservation programs and procedures to reduce water and energy usage and related costs
- Oversees the preparation of water supply contracts and amendments with suburban communities receiving their water supply from the City of Chicago
- Oversees the preparation of reports of water withdrawal from Lake Michigan in accordance with State of Illinois regulations
- Acts as a liaison between the Department of Water and suburban communities on water usage and conservation issues
- Represents the department at meetings with federal and state regulatory agencies
- Prepares reports on conservation activities
- Provides operational reports and other documentation to various regulatory agencies
- Completes grant applications to secure project funding

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 Civil Engineering or a directly related field, plus five years of water conservation experience within a large municipal water system; or an equivalent combination of education, training and experience provided that the minimum degree requirement is met

Licensure, Certification, or Other Qualifications

- Registration as a Professional Engineer (R.P.E.) in the State of Illinois is required

WORKING CONDITIONS

- General office 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, modems)
- Scientific calculators

PHYSICAL REQUIREMENTS

- No specific requirements

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

Considerable knowledge of:

- *water treatment and purification operations
- *water pumping stations and pumping system maintenance methods, practices, and procedures
- *civil engineering methods, theories, principles, and procedures
- *federal, state, local laws, regulations, and guidelines related to water purification

Some knowledge of:

- use of drafting instruments
- applicable computer software packages and applications

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

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, 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
- *MATHEMATICS - Use mathematics to solve problems
- *SCIENCE - Use scientific rules and methods to solve problems
- *COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- *MANAGEMENT OF MATERIAL RESOURCES - Obtain and see to the appropriate use of equipment, facilities, and materials needed to do certain work
- *COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- *SYSTEMS ANALYSIS - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes
- *SYSTEMS EVALUATION - Identify measures or indicators of system performance and the actions needed to improve or correct performance relative to the goals of the system

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 MATHEMATICALLY - Choose the right mathematical methods or formulas to solve a problem

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- COOPERATION - Be pleasant with others on the job and display a good-natured, cooperative attitude
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
- INDEPENDENCE - Develop own ways of doing things, guide oneself with little or no supervision, and depend mainly on oneself to get things done
- ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems

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
(Valtera Corporation)

Date: June, 2010