

CITY OF ST. LOUIS CLASSIFICATION SPECIFICATION

CLASSIFICATION

TITLE: Chemist II

CLASS CODE: 3552

GENERAL DESCRIPTION OF DUTIES:

Incumbents in this classification determine drinking water quality and safety, and monitor water treatment operation parameters.

DISTINGUISHING CHARACTERISTICS:

This is a journey-level professional classification in the Water System Maintenance Series – Adjunct Group job family within the City of St. Louis. Incumbents in this classification perform complex duties with a variety of related tasks. The distinguishing characteristics of this classification within the series include responsibility for training Chemist I employees and acting as lead person in laboratory in absence of the supervisor.

Incumbents work under general direction. They are generally in charge of an organizational unit, plan and carry out assignments with considerable independence, and have some latitude in developing procedures and methods. Supervision is given by occasional conferences.

This is an individual contributor class, meaning the incumbent is responsible for his/her own work including output, quality and timeliness. Incumbents may, however, explain work processes and train others, such as new employees, in the same or similar job title. The individual contributor may serve as a resource or guide by advising others on how to use processes within a system or as a member of a collaborative problem-solving team.

EXAMPLES OF WORK (Illustrative Only):

(The list of duties is intended to be representative of the duties performed in positions within this classification. It does not include all the duties that may be assigned to a position and is not necessarily descriptive of any one position in this class.)

Conducts water analysis using GC and GC/MS techniques.

Conducts disinfection byproducts analysis using GC.

Monitors and interprets water treatment operation test results.

Instructs operators to adjust chemical dosages for optimum treatment.

Analyzes audit samples and Information Collection Rule Study samples.

Trains chemists to acquire specific skills.

Resolves customer complaints in absence of supervisor.

Processes test data and prepares reports.

Processes and interprets quality control data.

Maintains and troubleshoots instrumentation and associated software.

Prepares chemical standards and solutions for use in laboratory tests.

Records outside samples received in log.

Checks the gas supply needed to run chemical analyses; requests replacement of used gas cylinders.

Prepares list of laboratory materials to be ordered.

Performs other duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES:

Data Utilization:

Requires the ability to perform mid-level data analysis including the ability to audit, deduce, assess, conclude and appraise. Requires discretion in determining and referencing such to established criteria to define consequences and develop alternatives.

Human Interaction:

Requires the ability to persuade, convince, influence, train and monitor chemists, in favor of a desired outcome. Requires the ability to act as a lead person in supervisor's absence.

Equipment, Machinery, Tools and Materials Use:

Requires the ability to operate, maneuver and/or provide simple but continuous adjustment on equipment, machinery and tools such as a computer, and/or materials used in performing essential functions.

Verbal Aptitude:

Requires the ability to utilize reference, descriptive, consulting, design and advisory data and information such as lab reports, control charts, lab fortified matrix, and chemical texts and methods manuals.

Mathematical Aptitude:

Requires the ability to perform addition, subtraction, multiplication and division; calculate decimals, fractions and decimals; perform mathematical operations involving advanced algebra, integral calculus, statistical inference, and descriptive statistics.

Functional Reasoning:

Requires the ability to apply principles of logical or synthesis functions involving planning and directing of interrelated activities or multiple departments. Ability to deal with several concrete and abstract variables in working out approaches to major problems.

Situational Reasoning:

Requires the ability to exercise the judgment, decisiveness and creativity required in situations involving the evaluation of information against sensory, judgmental and/or subjective criteria, as opposed to criteria that are clearly measurable or verifiable.

Environmental Factors:

Tasks may risk exposure to adverse environmental conditions, such as electric currents, life, toxic/poisonous agents, disease, or pathogenic substances.

Physical Requirements:

Tasks involve the ability to exert light physical effort in sedentary to light work, but which may involve some lifting and carrying of light objects and materials, up to twenty (20) pounds.

Sensory Requirements:

Requires the ability to recognize and identify degrees of similarities or differences between characteristics of colors, shapes, sounds, and odors associated with job-related objects, materials and tasks. Requires the ability to distinguish objects clearly at near and far-range such as assessing treatment conditions.

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