

LABORATORY ANALYST

DEFINITION

To perform professional and technical duties related to water and wastewater, chemical, and bacteriological analyses and examinations; and to provide professional level support to an assigned supervisor.

DISTINGUISHING CHARACTERISTICS

This is the journey level in the professional Laboratory Analyst series. Incumbents initially perform the more routine duties assigned to positions in this series and work under close supervision. However, as experience is gained, incumbents are expected to perform the full range of duties as assigned with increasing independence.

This class is distinguished from the Senior Laboratory Analyst in that the latter provides technical direction for the laboratory services program and may provide technical and functional supervision over assigned staff.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the assigned supervisor; and may receive technical and functional supervision from more experienced staff.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Perform a variety of routine chemical, physical and microbiological tests and analyses on water and wastewater samples to meet governmental and process control requirements.

Perform field sampling duties for water quality related programs; follow quality assurance/quality control program criteria; prepare standards and reagents; perform inspections, sampling, testing, and reporting associated with the industrial waste pretreatment program.

Maintain sample chain of custody and ensure samples meet applicable preservation and hold time requirements.

Perform routine laboratory analyses, including atomic absorption (FAA, GFAA, cold vapor, gaseous hydride generation), sulfate, chlorine demand, oil and grease, nitrate, nitrite, ammonia, phosphate, fluoride, TKN, total phosphorus, process control topics (MLSS/SVI, MCRT, F/M, chlorination/dechlorination, volatile acids/ alkalinity ratio); microbiological testing (completed test, membrane filter technique), acute bioassay, total organic carbon.

Analyze samples in accordance with applicable regulations and permit conditions using acceptable methods; perform quality control testing; check that analyses meet applicable quality control conditions; calculate and record laboratory test results; assemble and enter and review data in database; analyze gathered data, interpret test results to operations personnel.

Maintain accurate records of calibrations and analytical procedures, maintenance activities, reagent preparation and quality control activities.

Calibrate, clean, operates and maintains wastewater laboratory equipment related to subject matter including field wastewater monitoring equipment.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Foster an environment that embraces diversity, integrity, trust, and respect.

Be an integral team player, which involves flexibility, cooperation, and communication.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Relevant local, State, and Federal laws, rules and regulations related to area of assignment.

Chemical and microbiological laboratory techniques, materials and equipment, emphasizing those used in standard analysis of water.

Methods and procedures of water and wastewater treatment and distribution.

Methods and procedures for standard lab practices, techniques, equipment instrumentation and procedures.

Methods and procedures for sample collection and preservation; analytical procedures for water and wastewater.

Basic principles of organic and inorganic chemistry, microbiology and the physical sciences.

Water and wastewater regulations and requirements and quality control and quality assurance procedures.

Methods and procedures of laboratory safety.

Methods and procedures of mathematical computation.

Ability to:

Independently test and analyze water and wastewater samples.

On a continuous basis, know and understand all aspects of the job; intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures.

On a continuous basis sit at desk for long periods of time; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone and write or use a keyboard to communicate through written means; and lift or carry weight of 10 pounds or less.

Prepare, calibrate, standardize and operate a variety of laboratory and operations equipment and instruments in accordance with applicable requirements.

Safely prepare reagents, assemble and operate testing apparatus and equipment, collect drinking water, wastewater, and biosolids samples, perform tests accurately and precisely and interpret results.

Wear personal protective equipment (PPE) appropriate for job assignments; must comply with respiratory program and Cal OSHA standards.

Use sound judgment in recognizing scope of authority.

Operate and use modern office equipment including computers and applicable software.

Maintain regular attendance and adhere to prescribed work schedule to conduct job responsibilities.

Relevant local, State, and Federal laws, rules and regulations related to area of assignment.

Utilize appropriate safety procedures and practices for assigned duties.

Establish and maintain effective working relationships with those contacted in the course of work.

Work with various cultural and ethnic groups in a tactful and effective manner.

Communicate clearly and concisely, both orally and in writing.

Experience and Training

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Experience:

Two years of responsible water and wastewater laboratory experience.

Training:

Equivalent to a Bachelor's degree from an accredited college or university with major coursework in chemistry, biology, microbiology or a related field.

License and Certificate

Possession of a valid California Class C Driver License may be required at the time of appointment. Failure to obtain or maintain such required license(s) may be cause for disciplinary action. Individuals who do not meet this requirement due to a physical disability will be considered for accommodation on a case-by-case basis.

Possession of a Laboratory Analyst Grade II certificate from the California Water Environment Association or a Water Quality Analyst Grade II certificate from the American Water Works Association.