

CHEMIST

General Statement of Duties

Performs difficult professional work planning, conducting and analyzing samples at a water treatment plant laboratory necessary for the monitoring of municipal water operation.

Distinguishing Features of the Class

An employee in this class coordinates and performs a variety of chemical, biological, and microbiological tests designed to produce safe operation of domestic water treatment. Work includes establishing testing schedules and timetables, performing laboratory procedures, and preparing necessary reports and maintenance of computerized and manual records and files. The employee is subject to hazards associated with and chemical work including exposure to electrical current, and chemicals, fumes, odors, dusts, mists, gases, and poor ventilation. Work is also subject to the final standards of OSHA on blood borne pathogens. Work is performed under general supervision and is reviewed for conformance to testing and reporting procedures and accuracy.

Duties and Responsibilities

Essential Duties and Tasks

Plans, organizes and performs a variety of complex laboratory tests in a state certified laboratory designed to ensure safe and potable water; collects samples, establishes protocols, identifies analyses for contract laboratory.

Enters test results into spreadsheet.

Supervises and performs a variety of standardized laboratory tests and analysis of raw and treated water samples to determine efficiency of treatment; teaches standard analyses to operations staff for weekend and back up work.

Prepares solutions and reagents.

Supervises and performs collection of samples and tests to determine ph, alkalinity, bacterial content, metals, and other tests.

Develops and monitors written plans and operating procedures for the laboratory.
ensures quality control testing and records required by state and federal agencies.

Interprets laboratory tests and prepares required reports.

Orders supplies and maintains an inventory of chemicals, solutions, culture media, required forms, and other laboratory supplies.

Performs quality control; calibrates equipment; ensures necessary quality for supplies to assure reliable test results; maintains laboratory equipment in proper operating order; maintains state laboratory certification.

Additional Job Duties

Performs other duties as assigned.

Recruitment and Selection Guidelines

Knowledges, Skills and Abilities

Thorough knowledge of modern laboratory techniques, materials, and equipment, including those used in complex chemical and biochemical analysis of water.

Thorough knowledge of the principles of organic and inorganic chemistry.

Considerable knowledge of applicable federal, state, and local laws, ordinances.

Knowledge of the application of information technology to the work.

Skill in the use of specialized laboratory equipment.

Ability to read and interpret technical federal guidelines on water treatment procedures and tests.

Ability to interpret state and federal regulations related to water treatment testing.

Ability to prepare laboratory reagents and assemble laboratory apparatus for chemical and biological analysis.

Ability to take water samples and perform the necessary laboratory tests.

Ability to prepare and keep accurate records and prepare reports.

Ability to understand and carry out oral and written instructions.

Ability to perform mathematical calculations.

Ability to establish and maintain effective working relationships with regulatory officials, peers, superiors and employees.

Physical Requirements

Must be able to perform the basic life functions of climbing, stooping, kneeling, walking, pushing, pulling, crouching, reaching, standing, lifting, fingering, grasping, talking, and repetitive motions.

Must be able to perform light work exerting up to 20 pounds of force occasionally; up to 10 pounds of force frequently, and a negligible amount of force constantly to move objects.

Must possess visual acuity to perform extensive reading, prepare and analyze laboratory results, data, and figures, to operate a microcomputer, and to perform visual inspection of measurement devices.

Desirable Education and Experience

Graduation from an accredited college or university with a bachelor's degree in biology, chemistry, or related field, and experience in water treatment laboratory operations; or an equivalent combination of education and experience,

Special Requirements

Certification in laboratory analysis by the State.

Possession of a valid North Carolina driver's license.