

WATER PLANT LABORATORY AND OPERATIONS ANALYST

General Statement of Duties

Performs responsible technical work in the water treatment plant laboratory necessary for the monitoring of potable water safety.

Distinguishing Features of the Class

An employee in this class performs a variety of work designed to ensure the safety of potable water. Work includes taking samples, resolving customer complaints, monitoring laboratory results for sample testing, instructing Operators when to increase or lower chemical feed doses due to testing and temperatures for the distribution system, preparing monitoring reports for regulatory agencies, and other related activities. Work requires advanced technical knowledge of water quality requirements, applicable chemical and biological principles, customer service skills, technology skills, accuracy, and the ability to work productively and independently. Work subjects the employee to hazards including extreme temperatures, chemicals, oils, and other hazards. Work is performed under general supervision and is reviewed for conformance to testing and reporting procedures, customer service excellence, and accuracy.

Duties and Responsibilities

Essential Duties and Tasks

- Serves as a lead worker and trainer in the water treatment plant laboratory; trains operators in laboratory use and standard methods; calibrates laboratory equipment.
- Performs distribution sampling as required for the Consumer Confidence report and state and federal requirements; identifies locations and works with the public and businesses to take required samples; follows proper sampling procedures and transports samples to the laboratory; reviews results and follows up with any problems.
- Reviews the daily lab data and identifies results in need of chemical adjustments; ensures compliance samples meet state and federal requirements; follows up on results outside of required parameters.
- Works with customers who have complaints regarding taste, odor, color, and pressure; takes samples and tests water; follows up with customers and solves problems.
- Completes a wide variety of reports; enters data, and compiles it into appropriate forms and reports including the lead and copper reports.
- Flushes dead-end lines when needed.
- Fills in for absent operators.
- Ensures samples that are unable to be tested in the laboratory (THMs, metals, etc.), are appropriately packaged and shipped to the offsite testing laboratory.

Additional Job Duties

Performs additional related tasks as assigned.

Recruitment and Selection Guidelines

Knowledge, Skills, and Abilities

- Considerable knowledge of modern laboratory techniques, materials, and equipment, including those used in chemical and biochemical analysis of water and wastewater.
- Considerable knowledge of the principles of organic and inorganic chemistry.
- Considerable knowledge of the application of information technology to the work including spreadsheets, laboratory equipment, databases, and office technology.

- Considerable knowledge of state and federal requirements for water and wastewater treatment, storage, transportation, and disposal.
- Considerable knowledge of the operating principles and processes of a water and wastewater treatment plant.
- Skill in collaborative conflict resolution and customer contact.
- Skill in problem-solving.
- Ability to read and interpret technical federal guidelines on water and wastewater treatment procedures and tests.
- Ability to operate laboratory equipment.
- Ability to interpret state regulations related to water and wastewater treatment and industrial pretreatment.
- Ability to prepare laboratory reagents and assemble laboratory apparatus for chemical and biological analysis.
- Ability to take water and sewage 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 and record data accurately.
- Ability to establish and maintain effective working relationships with peers, superiors, customers, regulatory agencies, and contractors.

Physical Requirements

- Must be able to perform the basic life functions of climbing, balancing, stooping, kneeling, crouching, reaching, standing, walking, lifting, fingering, grasping, talking, feeling, and repetitive motions.
- Must be able to perform medium work exerting up to 50 pounds of force occasionally; and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects.
- Must possess visual acuity to prepare and analyze laboratory results, data, and figures, operate a microcomputer, and perform visual inspection of measurement devices.

Desirable Education and Experience

Graduation from a community college or university with a degree in chemistry, biology, environmental science, or related field, and considerable operations and laboratory experience; or an equivalent combination of education and experience.

Special Requirements

- Possession of a grade A surface water treatment plant operator certification.
- Possession of a grade A distribution certification *preferred*.
- Possession of a grade 1 physical/chemical certification.
- Possession of a valid North Carolina driver's license.