

WATER QUALITY SPECIALIST

NATURE OF WORK

This is professional environmental analysis, water quality analysis and evaluation work.

Work in Water involves collecting and analyzing environmental and drinking water samples; providing analytical test results so that environmentally threatening situations are detected, monitored and corrected in compliance with State and Federal regulations. Work also involves, but is not limited to, distribution water sampling, field analysis and analytical data evaluation to ensure compliance with EPA Safe Drinking Water Act (SDWA) regulations including the Total Coliform Rule (TCR). Work in Wastewater involves maintenance of an ongoing laboratory Quality Assurance/Control (QA/QC) program, responsibility for analytical method development and assisting with administration of a Laboratory Information Management System. Work is performed under the general supervision of an administrative superior.

EXAMPLES OF WORK PERFORMED

Evaluates current analytical methods and procedures at all stages to assure adherence to EPA approved standard methods.

Oversees the collection and analysis of distribution system drinking water samples following procedures in compliance with Safe Drinking Water Act, Total Coliform Rule.

Performs annual evaluations of distribution system sampling locations and recommends additions and relocations in compliance with the Safe Drinking Water Act.

Prepares evaluations of water quality data using various electronic tools such as Laboratory Information Management Systems, water distribution modeling software, and spreadsheets to provide conclusions and recommendations for modifying process control, and corrective actions and improvements to distribution system water quality.

Monitors and interprets water quality data to identify changes and trends in water quality.

Manages, responds, tracks, and resolves water quality complaints utilizing proper customer care tracking software.

Assists in preparing water quality information for consumer use to include the Consumer Confidence Report, various brochures and pamphlets and web site information.

Completes and maintains test records in the Laboratory Information Management System and Total Coliform Rule Monthly compliance reports in accordance with federal and state regulatory requirements through submittals to laboratory manager.

Works with public health monitoring agencies and the medical community, as required, during investigations of possible waterborne disease outbreaks or contamination sources.

Works with consulting engineers, federal or state agencies or universities on pilot studies or special projects regarding various water quality studies.

Creates standard operating procedures for EPA approved analytical methods performed in the laboratory, maintains printed files for standard operating procedures retained in laboratory workstations, and prepare QA/QC samples for method validation in addition to facilitating the determination of method and instrument detection limits for all laboratory instrumentation.

Participates in compiling of accurate daily records of all analysis performed and maintains an ongoing QA/QC program to ensure data quality meets all regulatory guidelines, including regular review and validation of data entered into the Laboratory Information Management System.

Assists in safety and analytical method training of laboratory personnel, maintains safety and analytical method training records and provides technical support to laboratory personnel in solving analytical problems.

Assists in administration and maintenance of the Laboratory Information Management System; trains laboratory personnel in proper data entry practices and strategies to maximize use of personal computers in the laboratory.

Performs routine laboratory analysis using EPA approved methodology when laboratory analysts are on leave and analyze special environmental samples as assigned to meet request using methodology specified by the laboratory manager or other administrative superior.

Performs related work as required.

DESIRABLE KNOWLEDGE, ABILITIES AND SKILLS

Considerable knowledge of analytical techniques, scientific applications and instrumentation used in the measurement of chemical and biological constituents, and of any required mathematical calculations and interpretations of data and facts.

Considerable knowledge of the care, operation, and limits of equipment and supplies required to operate and maintain the laboratory.

Considerable knowledge of the EPA approved standard methods for chemical and physical analysis of environmental samples including but not limited to water, groundwater, stormwater, wastewater and biosolids.

Considerable knowledge of federal, state and local environmental laws, rules and regulations and their application to environmental programs or to public water systems.

Considerable knowledge of current laboratory safety practices and personal protective equipment.

Considerable knowledge of electronic data processing as applied to a Laboratory Information Management System.

Considerable knowledge of literature and approved analytical methods, and the application of these concepts to human health, environmental exposure and analysis.

Considerable knowledge of current and emerging computer programming languages, operating systems, hardware and system management processes necessary to perform work functions.

Ability to perform mathematical calculations, statistical analysis and interpretation of data and trends.

Ability to organize and conduct technical and scientific investigations independently.

Ability to independently perform standardized and specialized laboratory analysis.

Ability to exercise good judgement in safety awareness and safety habits.

Ability to develop or revise methods and procedures to carry out work objectives in an efficient, cost effective and safe manner.

Ability to communicate effectively at a highly technical level both verbally and in writing.

Ability to establish and maintain effective working relationships with co-workers, supervisors and the general public.

Skill in the use and maintenance of a variety of modern, complex laboratory instruments and equipment.

MINIMUM QUALIFICATIONS

Graduation from an accredited four-year college or university with major course work in organic, inorganic and physical chemistry, biology, microbiology, environmental science or chemical engineering and two years of experience at a professional level in an environmental laboratory performing comprehensive work related to the analysis and data evaluation of water or wastewater; or any equivalent combination of training and experience that provides the desirable knowledge, abilities and skills.

NECESSARY SPECIAL REQUIREMENT

For employees in Water, possession of a Nebraska Grade III Water Operators License.

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