

ENVIRONMENTAL LABORATORY SPECIALIST I

NATURE OF WORK

This is professional laboratory work performing environmental chemical analysis in a laboratory setting.

Work involves performing complex chemical analysis, making observations, taking measurements and interpreting results to ensure and protect the quality of the environment; this includes but is not limited to wastewater treatment plant operations and compliance, industrial and special waste compliance monitoring and water quality monitoring. Work is performed independently in accordance with standard laboratory methods. Supervision is received from a professional or an administrative superior and reviewed through reports submitted and conferences.

EXAMPLES OF WORK PERFORMED

Analyzes environmental samples for parameters which produce generally predictable results from sample to sample using established methodology.

Analyzes special environmental samples, as assigned to meet requests, using methodology specified by a technical or administrative superior.

Follows quality control procedures and unit protocol to ensure accuracy of tests using documented procedures of the laboratory; records and trends test analysis information.

Recommends changes in existing techniques and procedures to ensure or improve the quality and reliability of data generated and reported, using observations based on laboratory experience.

Maintains daily records of tests and analysis; completes a variety of reports including state and federal reports; operates a microcomputer in order to enter and retrieve data.

Studies new developments in appropriate areas of environmental analyses to be aware of new procedures, instruments and techniques, and to improve accuracy and efficiency of current procedures and instrumentation.

Cleans and repairs instrumentation to maintain equipment in operating order; calibrates and aligns to maintain proper working condition so that sample flow is not disrupted using procedures provided by manufacturer's manual.

Stocks supplies and reagents to maintain adequate inventory so that sample flow through the laboratory is not disrupted.

May testify on procedures, results and instrumentation used in analysis of samples, and may provide expert testimony in area of specialization as required during pre-litigation meetings or in actual court proceedings.

Performs related work as required.

DESIRABLE KNOWLEDGES, ABILITIES, AND SKILLS

Knowledge of analytical techniques, scientific theory and instrumentation used in the measurement of environmental contaminants.

Knowledge of federal, state and local environmental control laws, rules and regulations and their application to environmental programs.

Knowledge of electronic data processing as applied to laboratory data reduction and output.

Knowledge of literature and approved analytical methods related to environmental exposure and analysis.

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

Ability to perform complex mathematical calculations.

Ability to gather and interpret scientific data and facts.

Ability to develop or revise methods and procedures to carry out work objectives in a more 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.

DESIRABLE TRAINING AND EXPERIENCE

Graduation from a vocational/technical school with major course work in organic, inorganic, or physical chemistry (including qualitative and quantitative analyses), biology, microbiology, environmental science or related field and experience in an environmental laboratory.

MINIMUM QUALIFICATIONS

Graduation from a senior high school or equivalent with college-level course work in chemistry, biology, microbiology or related field and some experience in an environmental laboratory; or any equivalent combination of training and experience which provides the desirable knowledges, abilities and skills.

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