

## SENIOR ENVIRONMENTAL BACTERIOLOGIST

DISTINGUISHING FEATURES OF THE CLASS: Under the general supervision of the Chief-Environmental Laboratory Services, the incumbent of this position organizes and directs the activities of the Environmental Bacteriology Laboratory. Incumbents perform environmental bacteriological examinations, and may initiate, coordinate and conduct independent research of new, improved or approved methods, procedures or standards. This position is directly responsible for maintaining Bacteriological quality control. Supervision exercised over professional and technical environmental laboratory personnel. The incumbent must maintain a satisfactory rating of performance by the New York State Department of Health for those procedures for which approval has been granted to the laboratory. Does related work as required.

### EXAMPLES OF WORK: (Illustrative Only)

Supervises, directs and instructs the subordinate professional and technical staff in the environmental bacteriological examination of natural and treated waters, waste-waters, estuarine waters, swimming pools, and bathing places, performs advanced bacteriological examinations for Total Coliforms, Fecal Coliforms, E. coli, Enterococcus, and other bacterial contaminants;

Oversees the analysis of basic microbiological laboratory procedures on environmental samples by means of culture, staining and microscopic examination, biochemical, serological and molecular diagnostic testing for purposes of ensuring public health;

Plans, coordinates and conducts research of environmental bacteriology methods and procedures that may include Fermentation Broth, Membrane Filtration, and Chromogenic/Fluorogenic methods,

Participates in a seasonal recreational water monitoring program for hazardous algal blooms and Microcystins;

Evaluation and interpretation of results, and evaluation of the appropriateness of procedures and examinations utilized in specific instances;

Assists in preparing environmental laboratory budget requests by identifying needs, gathering and compiling appropriate justifications, evaluating new instrumentation and equipment as to its applicability for environmental laboratory operations;

Oversees installation of new equipment and instrumentation as well as its implementation for laboratory use;

Keeps abreast of current trends as well as changes in the field of environmental bacteriology that may impact operations;

Ensures that adequate inventories of laboratory supplies are maintained;

Supervises and instructs subordinate staff and students in the performance and interpretation of environmental bacteriology examinations;

Responsible for the daily, monthly, and other reports as requested from the Bacteriology Laboratory;

EXAMPLES OF WORK: (Illustrative Only) (Continued)

Maintains assigned areas, instrumentation and equipment in a clean and safe manner and at operational readiness;

May be required to give expert testimony in court or before other administrative hearings regarding results and interpretations of examinations;

Participates in the New York State Department of Health proficiency testing programs in the assigned areas of discipline;

Uses computer applications or other automated systems such as spreadsheets, word processing, calendar, e-mail and database software in performing work assignments;

May perform other incidental tasks, as needed.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Thorough knowledge of the theory, principles, techniques, procedures and applications of environmental bacteriology; knowledge of environmental bacteriology laboratory operations including methods, equipment and procedures for Total Coliform, Fecal Coliform, E.coli, Enterococcus, and other bacterial contaminants; thorough knowledge of microscopic techniques. Knowledge of federal, state and local laws, rules, regulations and policies as they apply to the operation of the environmental laboratory; ability to plan and conduct independent professional scientific research to improve laboratory methods and procedures and prepare comprehensive reports of findings and recommendations; ability to perform prolonged microscopic examinations; plan, organize and supervise the utilization and work of assigned professional and technical laboratory personnel. Understand, follow and explain technical instruction; ability to communicate effectively both orally and in writing; ability to follow detailed oral and written instructions. Ability to effectively use computer applications such as spreadsheets, word processing, e-mail and LIMS database software. Ability to read, write, speak understand and communicate in English sufficiently to perform the essential tasks of the position. Display accuracy; thoroughness; dependability; initiative; judgment; integrity; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: A Bachelor's degree\* in the chemical, environmental, or biological sciences with a minimum of sixteen (16) credits\* in the biological sciences which includes one course in microbiology, and four (4) years of experience in a laboratory conducting environmental analysis, two (2) years which must have been in a supervisory capacity.

SUBSTITUTION: A PhD\* or Master's degree\* in the chemical, environmental, or biological sciences, or closely related field, may substitute for the two (2) years of the required laboratory experience. There is no substitution for supervisory experience.

\*SPECIAL NOTE: Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Education Department as a post-secondary, degree-granting institution.