

ASSISTANT ENVIRONMENTAL CHEMIST (ORGANIC)

DISTINGUISHING FEATURES OF THE CLASS: Under supervision of a higher level professional, an incumbent in this position is responsible for conducting and interpreting various environmental organic chemical and physical analysis of water, wastewater, estuarine water, soil and other environmental materials for the detection of organic compounds by following established New York State and Environmental Protection Agency procedures to insure that all tests adhere to established standards of proficiency. The incumbent must maintain a satisfactory rating of performance for those procedures for which approval has been granted to the laboratory by the New York State Department of Health. This position may supervise subordinate laboratory personnel and provides instruction to subordinates in laboratory procedures or specific chemistry analysis. Does related work as required.

EXAMPLES OF WORK: (Illustrative Only)

Performs and interprets environmental organic chemistry analyses of natural and treated waters, wastewater and estuarine waters for Pesticides, PCBs and herbicides, Volatile halogenated compounds, Volatile aromatic compounds, Petroleum products, and other toxic and priority pollutants using approved methods incorporating high performance liquid chromatography, and packed and capillary gas chromatography utilizing electron capture, photoionization, flame ionization and electroconductivity detectors using extraction, separation and cleanup procedures to achieve necessary sensitivity and detection limits;

Performs statistical analyses (i.e.: linear regression, standard deviation) utilizing spiked samples, duplicate samples, etc. in order to evaluate instruments and analyses data;

Evaluates and prepares samples for analysis utilizing the most effective or appropriate chemical techniques;

Maintains quality control through the preparation and standardization of reagents and standards, and the generation of standard curves using reference and primary standards;

Prepares standard solutions for calibration of instruments as well as, quality control of the analysis;

Collects, interprets and evaluates data to determine final results and prepares reports of findings;

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

Performs analysis on quality assurance reference samples as required by current guidelines to assure quality control of instruments and methods for each matrix type;

Maintains inventories of supplies as well as assisting in the purchasing of supplies;

Maintains assigned areas, instrumentation and equipment (i.e.; chromatograph, extractor apparatus, etc.) in a clean and safe manner and at operational readiness; troubleshoots and does repairs when necessary;

Assists in gathering statistical data for monthly and other reports;

EXAMPLES OF WORK: (Cont'd.)

Performs environmental bacteriology examinations as required;

May be required to testify in court or before other administrative hearings regarding results of examinations;

May supervise and instruct trainees or subordinates in specific chemistry analyses or general laboratory procedures;

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: Good knowledge of environmental organic chemistry laboratory procedures, techniques and safety precautions; good understanding of the theory involved in the operation of gas chromatography, high performance liquid chromatography, and packed and capillary column gas chromatography; skill in the use, operation and care of laboratory equipment; ability to compile and present data in a clear and concise manner; ability to communicate effectively both orally and in writing; ability to follow detailed oral and written instructions; ability to supervise the work of subordinate laboratory personnel; ability to read, write, speak, understand, and communicate in English sufficiently to perform the essential duties of the position; ability to use computer applications such as spreadsheets, word processing, e-mail and database software; 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 Chemistry, Chemical Engineering, or a biological science which must have included twelve credits in Chemistry and one year of environmental chemistry laboratory experience in instrumentation or methodology used in an environmental chemistry laboratory.

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