

## ASSISTANT ENVIRONMENTAL CHEMIST (AIR-POLLUTION)

DISTINGUISHING FEATURES OF THE CLASS: Under the general supervision of a higher level professional, this is a professional position responsible for conducting various air pollution chemistry laboratory examinations to insure that all tests adhere to established standards of proficiency. Responsibilities include performing inorganic environmental chemical and physical analyses of air pollution samples and environmental materials and performing bacteriological examinations of environmental materials. Some supervision is exercised over subordinate technical personnel. 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. Does related work as required.

### EXAMPLES OF WORK: (Illustrative Only)

Performs and interprets environmental inorganic chemistry analyses of air pollution samples and environmental materials using designated references or equivalent methods where available, as follows: Analysis of 24 hour gaseous sampling trains for sulphur dioxide, nitrogen dioxide and oxides of nitrogen; Settleable, suspended and inhalable particulates; Particulate Metals;

Performs statistical analyses (e.g., linear regression, standard deviation) utilizing spiked samples, duplicate samples, internal and external standards and method of additions to evaluate instruments and test data;

Performs analyses on quality assurance reference samples as required by current guidelines;

Performs environmental bacteriology examinations as required;

Compiles, evaluates and interprets the results of examinations insuring the adherence to quality assurance standards;

Prepares samples for analysis utilizing 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;

Assists in gathering statistical data for monthly and other reports;

Prepares reports of examination of findings for various federal, state and local governmental authorities as well as private concerns;

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

Performs environmental bacteriology examinations as required;

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

EXAMPLES OF WORK: (Cont'd.)

Participates in the New York State Department of Health and/or United States Environmental Protection Agency proficiency testing programs in the assigned area of discipline.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Good knowledge of air pollution chemistry laboratory procedures, techniques and safety precautions; good knowledge of instrumental methods of analyses by such means as UV-Vis spectroscopy, atomic absorption spectrometry and gas chromatography; skill in the use, operation and care of laboratory equipment; ability to plan, organize and supervise the work of subordinate laboratory personnel in the performance of laboratory tasks and analyses; 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; 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 or related chemistry experience in instrumentation or methodology used in an environmental chemistry laboratory.

PROMOTION: Satisfactory completion of one year permanent service as Chemist Trainee. Advancement to this title does not require further examination.

\*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.