

RADIOLOGICAL AND CHEMICAL ANALYST

GENERAL STATEMENT OF DUTIES: Conducts investigations and analysis of incidents involving radioactive/hazardous material; does related work as required.

DISTINGUISHING FEATURES OF THE CLASS: Under general supervision, an incumbent in this class is responsible for monitoring compliance of applicable radiation and hazardous material requirements of the department, the New York State Health Code and other regulatory agencies. Responsibilities include maintaining an adequate inventory of properly calibrated and highly technical instrumentation, equipment and supplies for investigations and analyses of incidents, managing radioactive/hazardous waste storage and disposal activities, assisting in the advocacy of proper radioactive/hazardous waste safety practices and participating in emergency plans and response to incidents. Supervision may be exercised over support staff.

EXAMPLES OF WORK: (Illustrative Only)

Performs and interprets complex chemical analyses and radiological measurements utilizing sophisticated analytical instrumentation such as a portable gas chromatograph, HNU photoionization detector, radiation detection and measurement equipment, various explosimeters and gas detection devices, colorimetric devices and analytical chemical techniques;

Conducts investigations of radioactive/hazardous materials incidents and responds to emergencies;

Assists in the preparation, coordination and review of hazardous/radioactive materials emergency plans;

Compiles, evaluates and interprets the results of tests and measurements;

Maintains, calibrates and operates instrumentation and field response equipment and ensures their proper operational readiness;

Researches, analyzes and evaluates the applicability of new techniques, procedures, equipment and instrumentation;

Supervises and instructs subordinate technical staff in the organic and inorganic chemical analysis and radiological measurement of environmental samples and in the interpretation of the results;

Prepares technical specifications and guides for the purchase, maintenance, calibration, and operation of chemical and radiological equipment;

Maintains adequate inventories of equipment and supplies;

Supervises and instructs trainees during radioactive/hazardous materials safety training programs, tests and exercises;

EXAMPLES OF WORK: (Illustrative Only) (Cont'd.)

Performs data analysis and evaluation, prepares reports, maintains operating logs and participates in special research projects and investigations;

Assists in and advises on the assessment and evaluation of the public health impact of environmental and occupational exposures to toxic substances;

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

Participates in federal and state professional testing programs and maintains needed certifications in assigned areas of responsibility;

Provides expert testimonies in enforcement actions.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Thorough knowledge of radioactive/hazardous materials measurement and detection instruments; thorough knowledge of organic and inorganic chemistry laboratory procedures, techniques and safety precautions; good knowledge of scientific principles and practices including chemical and radiological terminology; familiarity with current developments in the field of environmental chemistry and radiation; good knowledge of the biological effects of radiological and chemical agents; familiarity with environmental rules and regulations; ability to plan, organize and coordinate program activities; ability to supervise the work of subordinate staff; ability to clearly and concisely express ideas orally and in writing; skill in the operation and care of instrumentation and technical equipment; ability to research new methods and procedures; ability to compile and present data in a clear and concise manner; ability to follow detailed oral and written instructions; ability to understand and interpret complex written regulations and technical reports; initiative and resourcefulness; accuracy; thoroughness; dependability; tact; good judgement; integrity; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: A Bachelor's Degree* in physics, chemistry, biology, chemical or environmental engineering, radiological technology, or a related environmental science, and either (a) two years of professional environmental science experience which includes one year of experience with analytical chemical and/or radiological instrumentation and techniques; or (b) a Master's Degree* in public health, environmental science, physics or a related field, which may substitute for one year of the above stated experience, and one year of experience with analytical chemical and/or radiological instrumentation and techniques; or (c) a satisfactory equivalent combination of training and experience.

SPECIAL REQUIREMENT: Possession of a valid New York State drivers license.

*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.

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Job Class Code: C2352
Job Group: XI