ASSOCIATE CHEMIST

General Statement of Duties and Responsibilities

This class of positions encompasses professional and/or supervisory responsibilities of various levels of responsibility and complexity involved in the performance of work in chemistry and related environmental sciences, in the lab and in the field, utilizing manual, automated and computerized instruments and observation. Participate in required proficiency testing; follow quality control and standard operating procedures; and follow safety and health procedures, such as: chemical hygiene, infection control, and blood-borne pathogen exposure plans. May respond to chemical, biological, radiological, nuclear (CBRN) and hazardous materials (HazMat) incidents and perform site evaluations. There are four Assignment Levels within this class of positions. All personnel perform related work. The following are typical assignments within this class of positions.

Assignment Level I

Under supervision, performs professional chemistry and related environmental sciences work in the laboratory and in the field. Performs qualitative and quantitative chemical analyses and chemical or physical tests on substances such as: air; water; waste; wastewater; narcotics; drugs; insecticides; construction materials; documents; food; paints and allied products; blood, urine and other biological specimens and substances; combustibles; cleaning products; fuels; lubricating oils; and other substances. Collects samples at indoor and outdoor
sites.

Examples of Typical Tasks

During the first year, receives training in and assists in performing tasks such as those described below. After satisfactory completion of training, performs tasks such as the following:

ASSOCIATE CHEMIST (continued)

Assignment Level I (continued)

Examples of Typical Tasks (continued)

Performs chemical sampling indoors and in the field; collects samples; conducts tests for pollutants and analyses of ambient air. Conducts tests to confirm results of tests on the pollutants conducted by private research laboratories and analyzes their results.

Performs functions utilizing manual, automated and computerized instruments.

Prepares and standardizes solutions, media, and reagents; utilizes required quality control procedures. Helps to maintain inventory control; informs the supervisor when supplies are low.

Tests, calibrates, operates and maintains instruments and equipment, such as microscopes, balances, chromatographic detectors, monitors and others.

Reviews and assembles data, keeps records and prepares and checks detailed reports and vouchers concerning analyzed materials and on the results of analyses.

Performs research work as directed.

Prepares for and testifies in legal and court proceedings regarding results of analyses.

Participates in field surveys relating to the control and maintenance of a pure and sanitary water supply.

Collects soot-fall samples from rooftops and assists in stack and duct sampling of industrial and commercial sites for air pollutants.

Responds to CBRN or HazMat emergencies or incidents on a 7-day 24 hour basis, travels to and enters sites in response to CBRN and HazMat emergencies. Operates field deployable analytical instrumentation to detect and/or identify CBRN and HazMat substances during emergencies, including inside the “hot” zone.

ASSOCIATE CHEMIST (continued)

Assignment Level I (continued)

Examples of Typical Tasks (continued)

During CBRN and HazMat emergencies and incidents, evaluates conditions and situations regarding potential hazards to the public, emergency response personnel and the environment.

During CBRN and HazMat incidents, sets up or adjusts "hot", "warm" and "cold" zones. Mitigates hazardous materials utilizing specialized equipment. Moves containers, bags, drums and cylinders containing hazardous materials.

Wears personal protective equipment such as self-contained breathing apparatus (SCBA), full face respirator and/or protective coveralls during emergency response. Maintains equipment and makes ready for future use.

Drives emergency vehicles to sites and ensures that vehicles are maintained in operating order. May operate boats.

For tasks implicating hazardous materials, develops safe work plans and health and safety plans.

Performs confined space rescue, maintains associated equipment and ensures training is current.

Oversees contractors on a variety of projects related to hazardous material remediation, site inspections, facility improvements and environmental assessments.

Tests food, soil, water and bodily fluids such as urine, blood or tissues for chemicals.

Tests water and surfaces using manual or automated methods for indicators of industrial, chemical or biological contamination.

ASSOCIATE CHEMIST (continued)

Assignment Level I (continued)

Examples of Typical Tasks (continued)

May advise and train less experienced personnel in the performance of duties.

Assignment Level II

Under general supervision, with some discretion for independent decision, in addition to performing the work of Assignment Level I, supervises and/or performs difficult and responsible chemist and related environmental sciences work, such as the following:

Examples of Typical Tasks

Performs and/or supervises qualitative and quantitative chemical analyses and chemical or physical tests on substances.

Supervises the on site collection of samples.

Oversees the assembling of data and preparation of detailed reports and vouchers concerning analyzed materials and results of analyses; prepares reports on results of difficult analyses.

Processes samples for analyses.

Prepares and standardizes solutions and reagents; utilizes required quality control procedures.

Tests, calibrates and makes minor repairs to instrumentation and equipment utilized in chemical work.

Participates in required proficiency tests.

ASSOCIATE CHEMIST (continued)

Assignment Level II (continued)

Examples of Typical Tasks (continued)

Assesses, segregates, stabilizes and packages unstable chemicals found during CBRN and HazMat response activities for the purpose of transport and disposal.

Devises, tests and implements new methods and procedures.

Ensures an adequate stock of supplies and chemicals.

Provides technical advice on questions relating to materials and methodologies.

May supervise and train subordinates.

May perform the duties of the supervisor in that person's temporary absence.

Assignment Level III

Under direction, with some discretion for independent action, in addition to performing the work of Assignment Level II, supervises subordinates and/or performs very difficult and responsible qualitative and quantitative chemical and related environmental sciences analyses, as described. In addition, performs tasks such as the following:

Examples of Typical Tasks

Is responsible for the professional, technical and administrative work of a unit of a major chemical or biochemical laboratory or a chemical project or chemical and/or materials testing program.

Initiates and directs research projects and approves laboratory standards and techniques.

ASSOCIATE CHEMIST (continued)

Assignment Level III (continued)

Examples of Typical Tasks (continued)

Is responsible for inspection of manufacturing plants to assure quality control of products.

Supervises the maintenance and servicing of field equipment.

Serves as dispatcher, dispatching responders to CNRN and HazMat incidents.

Supervises and trains subordinates in carrying out examinations by use of instruments in various fields and evaluating data so provided.

Supervises a major laboratory or project involving the isolation, analysis and quantification of pollutants, toxic substances and chemical elements found in air and water.

Serves as a technical resources person concerning CBRN and HazMat, performing research, studies, collecting statistical data, establishing standards and making recommendations.

Directs HazMat assessments, approves sampling plans, safe work plans, health and safety plans, reviews draft reports.

May perform the duties of the supervisor in that person's temporary absence.

Assignment Level IV

Under general direction, with wide discretion for independent action and decision-making, exercises primary technical and administrative responsibility for and supervises the operations of a large laboratory or group of laboratories, or HazMat unit engaged in the chemical analyses and related environmental sciences work described above. In addition, performs tasks such as the following:

ASSOCIATE CHEMIST (continued)

Assignment Level IV (continued)

Examples of Typical Tasks

Directs and supervises the operations of a laboratory engaged in the chemical analysis and testing of evidence, materials and body fluids from living and dead persons to detect drugs of abuse, diluents and their metabolites in cooperation with drug abuse detection and rehabilitation programs.

Develops procedures to detect new drugs as they are introduced.

Detects drugs or poisons in tissues obtained from autopsies using a variety of techniques, including atomic absorption, radio-immunoassays and spectrophotometric techniques.

Studies and approves procedures and specifications submitted by private research laboratories for the testing and chemical analysis of air produced by a wide variety of emitters in the City of New York.

Recommends courses of action based on reports and analysis of test results.

Directs the chemical and bacteriological analyses of domestic and industrial wastewaters, including analyses for the control of treatment processes.

Establishes time priorities, test objectives, degree of accuracy and precision required; reviews reports of analyses for technical adequacy, correlation of test data and proper interpretation of findings; and designates methods to be used and advises as to whether departure from standardized methods appears to be warranted.

Initiates and directs research in the proposed use of new materials or in the improvement or development of new methods of analyses.

Initiates or appraises and forwards requisitions for supplies, machines and equipment required for the laboratory, and prepares the annual budget request for the laboratory.

ASSOCIATE CHEMIST (continued)

Assignment Level IV (continued)

Examples of Typical Tasks (continued)

Assists in the preparation or revision of specifications; and consults with buyers, manufactures, contractors, vendors and engineers.

Assists in the planning and layout and selection of equipment for new laboratories or alterations to existing laboratories.

Leads chemical investigations and experiments.

Coordinates resources to sustain field operations for CBRN and HazMat long term emergency incidents

Directs CBRN or HazMat assessments including the development of sampling plans, compliance plans, project oversight and review of draft reports.

Prepares for and testifies regarding findings in legal and court proceedings.

May perform the duties of the supervisor in that person's temporary absence.

Qualification Requirements

A baccalaureate degree from an accredited college, including or supplemented by 16 semester credits in chemistry and 8 semester credits in any one or a combination of the following areas: chemistry, pharmacology, toxicology, environmental science, forensic science, or other natural science.

ASSOCIATE CHEMIST (continued)

Additional Qualification Requirements For Assignment Level II

To be eligible for placement in Assignment Level II, individuals must have, after meeting the minimum requirements described for Assignment Level I, at least two years of full-time satisfactory experience performing chemical or physical analyses in a laboratory. Education may be substituted for experience as defined in Special Note "3" below.

Special Notes:

1. Employees hired as Associate Chemists – Assignment Level I must satisfactorily complete a probationary period of at least 24 months. This probationary period may be extended in accordance with the Personnel Rules and Regulations of the City of New York. Employment may be terminated at any time during the probationary period. Upon satisfactory completion of one year of service and training in beginning level professional work in chemistry, Associate Chemists - Assignment Level I will be assigned to perform the full range of work in chemistry appropriate to Assignment Level I and will receive the "after one year in title" salary rate.

2. Employees with one year of satisfactory, post-baccalaureate, full-time professional experience performing chemical or physical analyses in a laboratory may be hired directly at the "after one year rate" for Assignment Level I, at the discretion of the hiring agency.

3. Education may be substituted for experience on the basis of 30 graduate semester credits from an accredited college in any of the areas of study described in the qualification requirements above for one year of experience.

   However, all candidates must have a baccalaureate degree from an accredited college with the specialized credits as described above.

ASSOCIATE CHEMIST (continued)

Certificate Requirement

At the time of appointment to a clinical laboratory, candidates must possess a valid License as a Clinical Laboratory Technologist issued by the New York State Education Department. This license must be maintained for the duration of employment.

License Requirements

At the time of appointment in a Hazardous Materials Unit, candidates must possess a Motor Vehicle Driver License valid in the State of New York. This license must be maintained for the duration of employment.

For appointment to certain positions in a Hazardous Materials Unit, a Class B Commercial Driver License valid in the State of New York may be required. If required, this license must be maintained for duration of employment. All licenses, certifications or endorsements necessary to perform the duties of the position are to be maintained for the duration of employment.

Medical Requirement

Employees appointed to a Hazardous Materials Unit may be required to wear a respirator while performing the essential functions of this job. Employees must be physically able to wear a respirator. OSHA regulations have established medical guidelines for wearing a respirator. Therefore, applicants and employees will be required to have a pre-appointment and periodic post-appointment medical examinations to demonstrate that they meet applicable OSHA standards and to monitor their medical status. Once hired, employees must continue to satisfy OSHA regulations for the duration of their employment.

Direct Lines of Promotion

From: None **To:** To be determined