

CHEMIST SERIES

PREAMBLE

The Chemist series is designed to include those positions where a formal training program at a university level is required as a prerequisite for recruitment. The professional Chemist is required to exercise considerable judgment in determining procedures, tests to be run, methods to be developed. The work may also require that the incumbent recommend changes to tests and equipment, assess the work of technicians running the tests, design research projects and supervise technical and/or professional staff. All levels are working levels.

CHEMIST 1

PREAMBLE

This level is a full working level and is intended to include graduates of a university program in chemistry or graduates of a technical school with several years of directly related experience in chemical technology. A newly graduated chemist or a technician aspiring to this level may be required to serve in a training capacity as a Laboratory Technician until professional competency is demonstrated. The Chemist 1 is a full working level, not a training level.

CHEMIST 2

PREAMBLE

This level is intended for those positions which function as head of a medium size laboratory. Supervision of other chemists and technicians and administrative responsibility for the laboratory is required for classification at this level except for those positions which are defined and function as specialists.

A specialist, is defined as a person who has successfully completed formal training in a specific area of chemical technology in addition to the training required for qualification as a Chemist.

CHEMIST 3

PREAMBLE

This level includes those positions which function as section head in a large laboratory, whose responsibility includes supervision of chemists and technicians and administrative responsibility for the laboratory.

CHEMIST 1

GENERAL

This is professional scientific work involving chemical analysis of a variety of substances and materials. Work is performed in a laboratory concerned with wet and/or instrumental chemistry procedures. An employee is required to exercise independent judgment in planning work details and making technical decisions. General supervision is received during progress and results are checked by a supervisor upon completion. Supervision of technical staff is normally required of a position at this level.

This level differs from Laboratory Technician 3 position in that the Chemist is responsible for developing the technical aspects of a testing program in a specific area establishing and maintaining the procedures necessary to carry out the program.

TYPICAL DUTIES

Performs a wide variety of standard tests using wet chemistry and/or instrumental methods within a specific area of expertise.

Instructs technicians in the use of instrumentation, equipment, and new procedures and monitors their performance.

Investigates, reports on, and recommends new testing procedures; modifies existing procedures and equipment and develops new test procedures and equipment to meet the specific needs of the laboratory.

Evaluates and interprets test data provided by technicians, prepares detailed reports and makes recommendations based on test results.

Ensures quality control is maintained at a high level.

Performs both qualitative and quantitative analysis of substances.

Carries out field tests as required.

QUALIFICATIONS

Knowledge, Abilities and Skills

Working knowledge of the principles and practices of chemistry.

Working knowledge of organic and inorganic chemistry as applied in analytical work.

Skill in the use of complex laboratory equipment and instrumentation.

Ability to maintain work records and to prepare clear and concise reports.

Ability to establish and maintain effective working relationships with other employees and the public.

Education, Training and Experience

University graduation with at least major course work in chemistry or technical training and several years' directly related laboratory experience.

CHEMIST 2

GENERAL

This is supervisory scientific work of a professional nature in which the incumbent may direct the operations of a medium size chemical laboratory. Work involves the training and direction of staff engaged in chemical analyses of a wide variety of substances and materials. This level also includes those professional chemist positions defined as "specialist" where the work requires advanced formal training in a specific area of chemistry and where on-the-job experience is not sufficient to perform the duties of the position. Employees exercise independent judgment in assigning tasks to subordinates, including other chemists, and in making technical and/or administrative decisions. General supervision is received and work is reviewed for results and adherence to administrative policy.

TYPICAL DUTIES

Performs any or all duties of a Chemist 1 and, in a medium size lab, supervises a staff including other chemists and technicians, assigning and prioritizing work, reviewing results, handling administrative matters of the lab, and reporting as required on the activities of the lab.

Plans, organizes, implements and reviews the work activities of the lab.

The role of a specialist, highly complex technical work which is not done by other staff members.

Makes recommendations in the area of specialization concerning use of equipment, modifications to existing equipment, need for new equipment, revised or new procedures, quality control, maintenance of equipment, development of test procedures and apparatus, evaluates and interprets results, writes reports.

Supervises technical/professional support staff.

QUALIFICATIONS

Knowledge, Abilities and Skills

Detailed knowledge of the principles and practices of chemistry.

Thorough working knowledge of the area of specialization.

Detailed working knowledge of all aspects of analytical work performed by the lab.

Skilled in the use of lab equipment and instrumentation.

Ability to analyze test data and develop recommendations based on that information.

Ability to conduct chemical analyses of various materials and substances and to supervise technicians and other chemists conducting chemical analyses.

Education, Training and Experience

University degree in Chemistry, preferably a Master's Degree, and considerable directly related experience in a laboratory including several years in an area of specialization where both formal training and experience was required.

Supervisory and administrative experience is preferred.

CHEMIST 3

GENERAL

This is advanced professional scientific work in a government laboratory where an incumbent functions as a section head in a large laboratory. An incumbent is responsible for planning, organizing and implementing the work of the section, consistent with the objectives of the department. An incumbent has wide latitude to make decisions related to the work of the section and performs with considerable independence and initiative. Supervision is received only in problem areas and reports are made to supervisors upon completion of projects.

TYPICAL DUTIES

Supervises, plans, organizes, implements and reports on all aspects of the activities of a section of the lab.

Responsible for administrative matters pertaining to the section.

Performs the most complex and difficult tests and analyses carried out by the section.

Provides technical direction and advice to the section's staff regarding all aspects of the job.

Consultant to departmental management, municipal officials and the public on all matters related to the work of the section

Trains and/or supervises training of staff in the section.

Consults with staff on procedures, quality assurance, equipment usage and all other matters related to the work of the section.

Recommends or approves changes to procedures, equipment usage and maintenance, purchase of equipment and apparatus.

Receives and reviews all reports for completeness and accuracy.

Maintains detailed records on research, production and administrative matters pertaining to the section.

QUALIFICATIONS

Knowledge, Abilities and Skills

Thorough knowledge of the principles and practices of chemistry.

Thorough working knowledge of all aspects of analytical work performed by the section.

Ability to instruct and supervise other professional and technical staff in the use of all equipment and instrumentation.

Ability to represent the section or the lab to interested parties concerning the work of the lab or test results.

Ability to administer and co-ordinate the work of the section so that priorities and work pressures are met.

Ability to write detailed and concise reports.

Ability to establish and maintain effective work relationships with and among the staff of the section.

Education, Training and Experience

University degree in chemistry, preferably a Master's Degree and considerable directly related experience in a laboratory including several years in an area of specialization where both formal training and experience was required.

Supervisory and administrative experience is required.