Competency-Based Position Description Template

Program/Department: *[State or Local]* Public Health Laboratory

Position Title: Environmental Analyst 1

Reports to: Chemistry Unit Supervisor [*or other designee*]

Previous Incumbent: None

Job Position Summary:

The incumbent in this position analyzes environmental samples using techniques and instrumentation appropriate for organic chemistry analysis to provide analytical results to clientele so that potentially hazardous situations are detected, monitored and corrected in order to ensure and protect the public health and quality of the environment.

Essential Job Duties:

- Perform sample preparation on environmental samples in accordance with established procedures. (20%)
- Perform assigned chemical analyses on environmental samples which produce reliable, reproducible, and generally predictable results in accordance with established procedures and regulations. (60%)
- Perform assigned chemical analyses on environmental samples that exhibit unpredictable behavior in accordance with established procedures. (6%)
- Clean, calibrate and repair equipment using documented procedures so that the Unit can provide requested services. (2%)
- Update knowledge of analytical techniques and instrumentation so that the most appropriate analytical techniques are utilized and recommend changes in established techniques and procedures to ensure that the quality and reliability of data generated and reported meets the needs of the client. (4%)
- Aim to achieve effective waste management and pollution prevention through techniques that reuse, recycle, reduce or eliminate laboratory waste or its toxicity. (2%)
- Perform other miscellaneous functions in the Public Health Laboratory as assigned by the Unit Supervisor necessary for the proper functioning of the Division so that operational efficiency is maintained. (6%)

Job Position Competencies:

General Laboratory Practice

GEN 1.00 - General technical and laboratory practice knowledge: demonstrates general knowledge and skills related to the scientific and technical components of laboratory testing

- Applies basic scientific and laboratory concepts and theories related to the specific testing that is conducted in work area (B)
- Applies fundamental mathematical and statistical concepts and practices in work area (B)
- Reads scientific and technical literature relevant to own work (B)
- Applies basic laboratory techniques to laboratory testing (B)
- Identifies routine problems related to technical duties and responsibilities (B)
- Documents actions and results using established paper or electronic systems (B)
- Acts as a good steward of public funds and resources (B)
- Applies scientific ethics and rules of conduct to the workplace (B)

GEN 2.00 - Reagent Use and Storage: adheres to policies and principles regarding the use and storage of laboratory reagents and supplies

- Adheres to policies, processes, and procedures for use and storage of reagents and supplies (B)
- Adheres to policies, processes, and procedures for preparing reagents (B)

GEN 3.00 - Equipment Use: adheres to policies and principles regarding the use, maintenance, and calibration of laboratory equipment

- Adheres to policies, processes, and procedures for operating laboratory equipment (B)
- Performs routine system checks and maintenance (B)
- Performs calibration of routine instruments and equipment (B)
- Documents maintenance and calibration activities (B)

GEN 7.00 - Regulatory Compliance: complies with regulations and guidelines governing laboratory testing

- Complies with regulatory requirements and guidelines related to laboratory testing (B)
- Recognizes Non-conforming Events in laboratory processes (B)
- Performs PT and alternative assessment (B)
- Reports PT and alternative assessment (B)
- Participates in performance of method validation and performance verification (B)

- Complies with policies, processes, and procedures regarding protected information (B)

Chemistry

CHM 1.00 Concepts and techniques: applies knowledge of chemical concepts and techniques to studies of biological and environmental matrices

- Collects data for statistical analyses (C)
- Performs chemical calculations (B)
- Performs measurements and unit conversion calculations (B)

CHM 2.00 Facilities and safety: works safely with hazardous materials within a laboratory facility

- Recognizes chemical hazards and chemical hazard communication (B)
- Adheres to safe work practices related to chemical hazards (B)
- Adheres to policies, processes, and procedures regarding PPE use (B)
- Adheres to policies, processes, and procedures regarding the use of engineering controls (B)
- Adheres to policies, processes, and procedures related to sample waste management (B)

CHM 3.00 Pre-examination: performs chemistry pre-examination procedures

- Describes routine sample collection, labeling, and handling policies, processes, and procedures for chemical examination (B)
- Describes the importance of adhering to established policies, processes, and procedures regarding transport of materials for chemical examination (B)
- Performs procedures for sample accessioning and receipt (B)
- Performs systematic tracking of samples from receipt to final disposition (B)
- Assesses appropriateness of routine samples for chemical examination (B)
- Adheres to policies, processes, and procedures regarding testing workflow (B)
- Performs sample processing procedures for routine chemical examinations (B)
- Performs procedures for sample storage and handling prior to examination (B)

CHM 4.00 Examination: performs chemistry examination procedures

- Performs chemistry examination procedures (B)
- Performs routine chemical extraction methods (B)

- Performs QC activities (B)
- Identifies basic laboratory equipment problems (B)
- Performs procedures for sample storage and handling after examination (B)

CHM 5.00 Postexamination: performs chemistry postexamination procedures

- Assembles QC data for evaluation (B)
- Assembles test data for review and action (B)
- Adheres to policies, processes and procedures related to reporting and release of examination results and notifiable results (B)
- Collects data for reporting on QA indicators (C)

Minimum Qualifications:

Bachelor's degree in a chemical, biological, physical, or clinical laboratory science, or medical technology field.

A minimum of 60 semester/90 quarter college credits that includes either:

1) 24 semester/36 quarter credits in medical laboratory technology; or

2) 24 semester/36 quarter credits of science courses that includes a) six semester/nine quarter credits in chemistry; b) six semester/nine quarter credits in biology; and c) 12 semester/eighteen quarter hours of chemistry, biology, or medical laboratory technology in any combination.

Applicants must provide evidence of course completion prior to employment.

Preferred Qualifications

Knowledge of chemical, biochemical, molecular biologic, and/or clinical laboratory procedures.

Knowledge of basic college math, algebra and practical statistics as applied to measurement techniques.

Ability to follow complex oral and written directions and to use formulas and charts.

Communication skills: verbal, written and interpersonal.

Time management and multi-tasking skills.

Ability to operate sophisticated PC-based analytical instrumentation.

Technical skills and familiarity with laboratory information management systems (LIMS).