

## **ENVIRONMENTAL LAB TECHNICIAN II**

### **DISTINGUISHING FEATURES OF THE CLASS:**

This is advanced technical laboratory work responsible for environmentally-related analysis of sewage and water samples. Duties include the performance of all the tests required of an Environmental Laboratory Technician I and review of work of Laboratory Technician I. Duties include the establishment of new test procedures and the preparation of "bench sheets," generally in accordance with standard methods. Work is carried out according to prescribed environmental health procedures and safety procedures established by local, state and federal authorities. Supervision is received from appropriate higher level technical staff such as the Environmental Lab Director. This position is distinguished from the Environmental Lab Technician I by responsibility for devising new procedures, training other laboratory staff and maintaining a quality control program. This position may be responsible for interpreting tests results, explaining these results to the general public, and for providing coverage of the Laboratory Director in his/her absence.

### **TYPICAL WORK ACTIVITIES:**

1. Performs total coliform, fecal coliform, and fecal strep bacteriological tests using either membrane filtration or most probable number procedure;
2. Tests samples for color, turbidity, taste, odor, hardness, alkalinity, chlorides, iron, pH value, residual chlorine, nitrates, fluorides, LSI (Langlier Saturation Index), MBAS (Methylene Blue Activated Substances), total dissolved solids, and sulfates;
3. Prepares and standardizes a variety of culture media, chemical reagents and standards;
4. Instructs and participates in the calibration, operation, maintenance and repair of laboratory equipment;
5. Assists the Director in researching and developing testing procedures for new tests which are required by the Director or by local, state or federal regulatory agencies;
6. Designs "bench sheets" for use by self and other laboratory personnel;
7. Trains laboratory personnel regarding existing and newly developed laboratory procedures;
8. Assists in the supervision of safety procedures in the laboratory;
9. Maintains quality control of laboratory procedures according to Federal and State guidelines including documentation and follow-up;
10. Observes results of tests and may prepare reports as required by local, state and federal authorities and/or supervisor;
11. Performs appropriate arithmetical and statistical compilations of laboratory results;
12. Interprets test results and explains interpretation of test results to the general public;
13. May trouble-shoot and make simple repairs on malfunctioning equipment;
14. Oversees the inventory and storage of chemicals in the laboratory;
15. May act as the supervisor in his/her absence;
16. Does related work as required.

**ENVIRONMENTAL LAB TECHNICIAN II** (Cont'd)

**FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

Good knowledge of modern technical laboratory techniques, equipment and terminology used in the analysis of water, wastewater and sludge; good knowledge of biology and chemistry as applied to the analysis of water, wastewater and sludge; good knowledge of modern laboratory procedures and techniques; good knowledge of quality control practices and techniques in an environmental laboratory setting; skill in the operation and care of simple and complex laboratory equipment and apparatus and in performing laboratory routines; ability to perform routine to complex laboratory tests; ability to understand, interpret and convey complex technical instructions; ability to supervise the work of others; ability to develop cooperative relationships with associates and to deal effectively with the public; ability to maintain technical records and prepare and interpret reports; ability to learn simple statistics; accuracy; thoroughness; good powers of observation; manual dexterity; physical condition commensurate with the demands of the position.

**MINIMUM QUALIFICATIONS:**

- EITHER:       (A)     Graduation from a regionally accredited or New York State registered college or university with a Bachelor's degree in chemistry, biology, environmental science or a closely related field with three (3) laboratory courses in chemistry, one (1) of which must have been in instrumental analysis or analytical chemistry, one (1) laboratory course in biology, one (1) laboratory course in microbiology and one (1) mathematics course, such as algebra and statistics;
- OR:            (B)     Graduation from a regionally accredited or New York State registered college or university with an Associates degree in chemistry, biology, environmental science or a closely related field with two (2) laboratory courses in chemistry, one (1) laboratory course in biology and one (1) mathematics course, such as algebra or statistics PLUS one (1) year of post-graduate full-time paid technical work experience in a laboratory engaged in environmental analysis.

EV1302

ADOPTED:    11/13/80

REVISED:    10/30/89

07/01/91