

ENVIRONMENTAL LABORATORY TECHNICIAN TRAINEE

DISTINGUISHING FEATURES OF THE CLASS:

An employee in this class undergoes on the job training in environmentally - related analysis of sewage and water samples. Duties include the accurate completion of a variety of standardized laboratory tests and procedures, within limits prescribed by higher level technical staff who would devise procedures for new tests, generally in accordance with standard methods. Work is performed according to prescribed environmental health procedures and safety procedures established by local, state, and federal authorities. Incumbents are responsible for performing tests accurately and also for maintaining personal and overall laboratory safety. Supervision is received from appropriate higher level technical staff such as Environmental Laboratory Technician I or II or Environmental Laboratory Director.

TYPICAL WORK ACTIVITIES:

1. Trains in the operation and maintenance of a variety of laboratory equipment such as sterilizers, microscopes, centrifuges, stills, pH meters, dissolved oxygen meters, balances, incubators, vacuum pumps and turbidimeter;
2. Trains in the preparation and standardization of a variety of reagents bacteriological media and solutions necessary for standard chemical and bacteriological tests;
3. Trains in the performance of total coliform and fecal strep bacteriological tests using either membrane filtration or most probable number procedures;
4. Trains in the testing of 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;
5. May train in the testing of sewage influent and treated effluent for such things as temperature, pH, settleable solids, suspended solids, sludge volume index, sludge age, dissolved oxygen, chlorine residual, bio-chemical oxygen demand, chemical oxygen demand and ammonia;
6. Trains in the testing for standard plant counts of various types of water samples;
7. Isolates micro-organisms in pure cultures and identifies organisms;
8. Stains slides and examines microscopically;
9. Selects the appropriate laboratory equipment to use for various laboratory techniques and follows the proper procedures for usage of the equipment;
10. Inspects laboratory equipment to insure proper operation conditions;
11. Maintains laboratory and chemical storage facilities in a safe, clean, and orderly fashion;
12. Cleans and sterilizes equipment;
13. Observes and records the results of tests and may prepare reports;
14. Performs appropriate arithmetical and statistical (t-test, percentages) compliance of laboratory results;
15. Maintains inventory on all supplies, especially on toxic, caustic, and carcinogenic materials;
16. Participates in all quality control testing procedures;
17. May relate to customers the results of routine tests performed;
18. Does related work as required.

ENVIRONMENTAL LABORATORY TECHNICIAN TRAINEE (Cont'd)

FULL PERFORMANCE, KNOWLEDGE, SKILLS ABILITIES AND PERSONAL CHARACTERISTICS:

Working knowledge of modern technical laboratory techniques, equipment and terminology used in the analysis of water, waste water and sludge; working knowledge of biology and chemistry as applied to the analysis of water, waste water and sludge; working knowledge of modern laboratory safety procedures; working knowledge of environmental health laboratory procedures and techniques; skill in the operation and care of laboratory equipment and apparatus and in performing laboratory routines; ability to perform routine laboratory tests; ability to follow technical prescribed methods and procedures, both oral and written; ability to plan and schedule work phases; ability to follow technical prescribed methods and procedures, both oral and written; ability to plan and schedule work phases; ability to write simple reports of observations and laboratory results; ability to perform varied arithmetical computations; accuracy; thoroughness; good powers of observation; manual dexterity; physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS:

Graduation from high school or possession of a high school equivalency diploma.

EV1307

ADOPTED: 05/25/93