

Jurisdictional Class: Competitive
EEO Category: Technician
Revised: 02/25/2025

SENIOR LABORATORY TECHNICIAN (WATER AUTHORITY)

DISTINGUISHING FEATURES OF THE CLASS: This position involves technical laboratory work, including responsibility for conducting routine tests for the sanitary, chemical, and physical analysis of water. The incumbent must determine whether the water being tested meets the required quality standards set by the New York State Health Department. A high degree of alertness and accuracy is essential, as errors could pose a risk to public health. The work is performed under the general direction of the Bio-Chemist, who is available for consultation on complex or unusual issues. Supervision is exercised over a small number of subordinates. This class is distinguished from that of a Laboratory Technician due to the greater level of technical expertise and supervisory responsibilities required. The incumbent performs related duties as needed.

TYPICAL WORK ACTIVITIES: (Illustrative Only)

Conducts routine sanitary analysis of raw and treated water, including bacteriological and microscopic examinations;

Prepares bacteriological cultures, stains, dyes, and chemical solutions;

Performs daily bacteriological testing, and when necessary, proficiency testing for coliform bacteria, performs standard plate and R2A counts;

Interprets results of all tests;

Conducts physical and chemical analysis and wet chemistries, including samples for color, turbidity, hardness, alkalinity, chlorides, iron, fluoride, pH value, and related factors;

Also conducts tests on mineral analysis and chemical balance;

Inspects laboratory equipment to ensure proper condition including incubator, sterilizer, turbidimeter, water still, comparators, and glassware;

Performs routine equipment maintenance, as needed;

Operates hot air oven in sterilizing laboratory glassware;

Operates steam autoclave in sterilizing prepared media;

Closely observes temperature and pressure gauges to ensure proper sterilization;

Arranges necessary apparatus and glassware for testing water supplies;

Performs bacteriological proficiency testing for coliform bacteria and standard plate count bacteria, as prescribed by State Health Department standards;

Prepares bacteriological cultures, stains, dyes, and media;

Sets up equipment necessary in routine sanitary analysis of water, including bacteriological and microscopic examination;

Records results of tests, and maintains a variety of records and reports related to activities in the water analysis laboratory;

Supervises, and participates in, a wide variety of technical, clerical, and housekeeping activities in the water analysis laboratory;

Follows special handling procedures when working with contaminated specimens;

Places prepared media solutions in test tubes and plugs in preparation for autoclaving;

Checks laboratory safety practices and sees that they are carried out;

Makes recommendations for improved procedures and systematizes work to ensure efficient operations;

Assists the Bio-Chemist with tests on water to determine mineral analysis and chemical balance;

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TYPICAL WORK ACTIVITIES: (Continued)

Assists the Bio-Chemist with physical analysis and wet chemistries including samples for color, turbidity, hardness, alkalinity, chlorides, iron, fluoride, pH value, and related factors;

Performs quality control evaluations on all phases of bacteriology laboratory work, as required by the New York State Health Department ELAP.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Thorough knowledge of aseptic techniques, testing practices, equipment, safety precautions and terminology used in a water analysis laboratory; thorough knowledge of the principles of bacteriology, biology, chemistry and physics as they relate to water analysis; thorough knowledge in the operation and care of water laboratory apparatus and equipment; ability to understand and carry out technical oral and written directions; ability to maintain technical records and prepare related activity reports; ability to lay out and supervise the work of others; thoroughness; dependability; high degree of accuracy; good hand and eye coordination; good judgment.

MINIMUM QUALIFICATIONS: Either:

- (A) Possessions of Bachelor Degree in chemistry, biology, physics, earth science, or a closely related field; **OR**
- (B) Possession of Associate Degree in chemistry, biology, physics, earth science, or a closely related field **AND** two (2) years of environmental analysis experience in a clinical, public health or environmental laboratory.

NOTES:

1. Degree(s) must have been awarded by a college or university accredited by a regional, national, or specialized agency recognized as an accrediting agency by the U.S. Department of Education/U.S. Secretary of Education. If the degree was awarded by an educational institution outside the United States and its territories, the candidate must provide independent verification of equivalency. A list of acceptable companies who provide this service can be found on the Internet at <http://www.cs.ny.gov/jobseeker/degrees.cfm>. Candidates will be required to pay the evaluation fee.
2. Verifiable part-time experience will be pro-rated toward meeting full-time experience requirements.

Adopted: City of Utica 06/09/1988 / OC 05/22/1997
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