

Jurisdiction: City of Ithaca
Jurisdictional Class: Competitive
Adopted: 02/24/97
Revised: 05/19/97, 04/06/05, 04/06/11, 04/03/19, 09/07/22

LABORATORY TECHNICIAN

DISTINGUISHING FEATURES OF THE CLASS: The work involves responsibility for independent sampling, testing and laboratory analyses associated with municipal water and wastewater treatment plant laboratories. The work involves the physical, chemical, bacteriological and microscopic examination of raw and treated water and wastewater. The work may also include testing related to the watershed program requirements for Cayuga Lake, its tributaries and the potable water source, Six Mile Creek. When assigned to the Water Treatment Plant, the incumbent may assist with the development and implementation of the watershed management program. The work is performed under general supervision in accordance with prescribed procedures requiring a high degree of accuracy. Guidance and oversight may be provided to plant operators who assist with laboratory work. Does related work as required.

TYPICAL WORK ACTIVITIES:

- Collects samples and conducts tests and analyses of raw and treated water and wastewater to ensure federal and state plant permit compliance including sampling, testing and analysis for residue, dissolved oxygen, phosphorus, fecal material, sediments, bacteria, etc;
- Collects samples, tests and analyses to determine permit compliance of industrial users of an area wastewater collection system to ensure the safety of operators and that the treatment plant is not compromised by toxicity, untreatable loading, and loading above design;
- Collects wet chemistry samples for shipment and/or pickup by contract laboratories; prepares associated paperwork for these samples;
- Prepares chemical and bacteriological media, reagents and solutions;
- Assembles, calibrates, operates and maintains laboratory, field and autosampling equipment, along with the related records required for the equipment;
- Calibrates and maintains laboratory equipment including drying ovens, incubators, balances, oxygen meters and a spectrophotometer;
- Contacts water distribution system personnel to resolve problems or assist with water laboratory operations including flushing of the water distribution system and snow clearing of access roads;
- Monitors the dechlorination building for the water treatment plant;
- Analyzes data and creates and maintains a variety of records and reports relative to laboratory operations;
- Assists water distribution and wastewater collection crews with sampling and analysis that may be required when troubleshooting problems in the water distribution and wastewater collection systems;
- Assists in the development of laboratory budgets;
- Assists with training operators in laboratory techniques, procedures and quality control requirements;
- Participates in development and implementation of lab procedures and safety programs;
- When assigned to the Water Treatment Plant, assists with the quality control program;
- When assigned to the Water Treatment Plant, assists with the development and implementation of watershed, water quality and land use programs;
- May prepare technical reports, materials for professional conferences and may give presentations related to work activities, as assigned.

Laboratory Technician

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FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES, PERSONAL CHARACTERISTICS:

Good knowledge of modern laboratory practices and procedures related to water and wastewater treatment including sampling, testing and analytical techniques; good knowledge of analytic chemistry and microbiology related to water and wastewater treatment; good knowledge of federal, state and local requirements applicable to acceptable limits of water and wastewater pollutants; good knowledge of laboratory equipment and materials related to water and wastewater treatment; good knowledge of the materials, equipment and chemicals involved in operating and maintaining water and wastewater treatment plants; good knowledge of federal, state and local laws and regulations applicable to a water and/or wastewater treatment plant; working knowledge of water distribution and wastewater collection systems; ability to operate a personal computer and utilize common office software programs including word processing, spreadsheets and databases; ability to organize and maintain accurate records and files; ability to analyze and organize data and prepare records and reports; ability to understand and interpret complex oral instructions and/or written directions; ability to establish and maintain effective working relationships with others; ability to communicate effectively both orally and in writing; ability to understand and follow oral and written instructions; ability to successfully work with and serve a diverse local community; physical condition commensurate with the demands of the position (may be required to lift up to 50 pounds, climb stairs and ladders, and enter confined spaces such as vaults and manholes).

MINIMUM QUALIFICATIONS: Either:

- A. Possession of an Associate's degree in chemistry, microbiology, laboratory technology, water or wastewater technology, or a closely related field with similar course curriculum; or
- B. Completion of a minimum of sixty (60) credit hours of college coursework, including twenty-four (24) credit hours in chemistry, biology, laboratory technology, water or wastewater technology, or a closely related field with similar course curriculum; or
- C. Graduation from high school or possession of a high school equivalency diploma and two (2) years of experience in performing physical, chemical, microbiological or bacteriological tests involving water or wastewater analysis; or
- D. An equivalent combination of training and experience as defined by the limits of (A), (B), and (C).

Note: College degrees must have been awarded by, and college coursework completed at, a college or university accredited by a regional, national, or specialized agency recognized as an accrediting agency by the U.S. Department of Education and/or U.S. Secretary of Education. If an applicant's degree was awarded by, or college coursework completed at, an educational institution outside the United States and its territories, the applicant must provide independent verification of equivalency. A list of acceptable companies who provide this service can be found at <https://www.cs.ny.gov/jobseeker/degrees.cfm>. Applicants are responsible for payment of the required evaluation fee.

SPECIAL REQUIREMENT: Possession of a valid driver license appropriate to the vehicles or equipment operated. Said license must be maintained for the duration of employment.