

Jurisdictional Class: Competitive
EEO Category: Technicians
Revised: 04/11/2023

LABORATORY TECHNICIAN (WASTEWATER TREATMENT)

DISTINGUISHING FEATURES OF THE CLASS: This position involves responsibility for physical, chemical, bacteriological and microscopic examination, and analysis of raw and treated wastewater and sludge. The incumbent is responsible for performing laboratory tests and procedures required for control of the treatment process and necessary stream or industrial waste surveys. The work is performed under supervision of the Water Resources Chemist, with leeway allowed for exercise of independent judgement in carrying out details of the work. Supervision over the work of others is not a responsibility of employees in this class. The incumbent performs related work as required.

TYPICAL WORK ACTIVITIES: (Illustrative Only)

Performs a wide variety of chemical tests on sludge, industrial waste and wastewater found in lakes, streams, and treatment plants, such as ammonia nitrogen analyses, organic and total Kjeldahl nitrogen analyses, nitrite and nitrate determinations, alkalinity analysis, sulfate analysis, chloride analysis, phosphate analysis, metals determinations, suspended, total, and volatile solids determinations to determine effects upon plant operations and quality of receiving waters, including field sampling and field testing;

Follows established methodologies for a Laboratory Quality Control Program including calibration of equipment, preparation of Chemical Standard and preparation and testing of spiked and replicate samples;

Operates a variety of scientific equipment used in analysis, such as spectrophotometers, titrators, microscopes, pH meters, dissolved oxygen meters, conductivity meters, balances, incubators, constant temperature baths and autoclaves, HACH Cl₂, micro TKN, ammonia nitrogen analyzers, and other scientific equipment as may be necessary;

Records and tabulates the results of tests and data for use by superiors;

Maintains laboratory and chemical storage facilities in a safe, clean orderly fashion;

Performs microbiological examinations on activated sludge and plant effluent;

Prepares and standardizes required reagents, bacteriological media and solutions necessary for chemical and bacteriological tests and analyses;

Reviews, analyzes and interprets technical data for purposes of composing technical reports;

Participates in training of plant personnel regarding laboratory procedures;

Attends laboratory related courses and seminars to keep abreast of developments in the field;

Assists other departments, as needed;

May help pretreatment staff in obtaining samples in the facility or at various industrial users;

May direct shift personnel in performance of laboratory testing.

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FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS: Working knowledge of modern technical laboratory techniques, equipment, terminology, and safety precautions used in the analysis of water, wastewater and sludge; working knowledge of the principles of environmental health, as they relate to wastewater treatment; working knowledge of the practice of analytical chemistry and microbiology, as they relate to wastewater analysis and treatment; skill in the operation and care of laboratory equipment and apparatus, and use and storage of chemicals; ability to direct operating personnel in collection of samples and performance of simple tests; ability to understand and carry out technical oral and written instructions; ability to maintain technical records and reports; accuracy.

MINIMUM QUALIFICATIONS: Either:

- (A) Possession of Associate's Degree in laboratory technology, engineering, civil, chemical, mechanical, electrical, biological or physical sciences or a closely related field; **OR**
- (B) Graduation from high school or possession of a high school equivalency diploma **AND** two (2) years of technical experience in an industrial, medical, pharmaceutical, or public laboratory.

SPECIAL REQUIREMENT: Possession of a valid New York State driver's license at time of appointment. License must remain valid throughout appointment.

NOTE: 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.

Adopted: 02/09/1982
Revised: 05/24/1990, 11/29/1990, 06/11/1996, 09/25/1996, 12/23/2016, 06/12/2017, 01/15/2020, 04/11/2023