

LABORATORY TECHNICIAN (TREATMENT PLANTS)

DISTINGUISHING FEATURES OF THE CLASS:

This position involves technical responsibility for physical, chemical, bacteriological and microscopic examination of raw and treated water, domestic sewage and/or industrial wastes. An incumbent also oversees laboratory record keeping and procedures and maintains a laboratory quality assurance program. The work is performed in accordance with standard laboratory procedures, Federal, State, county and local laws and regulations, and standards set forth by the National Environmental Laboratory Accreditation Program (NELAP.) The work is performed under the general supervision of the Director of Municipal Utilities with considerable freedom allowed to exercise independent judgement in carrying out the work. An incumbent exercises no supervision. Does related work as required.

TYPICAL WORK ACTIVITIES:

Collects samples of and performs physical, chemical, bacteriological and microscopic examinations on raw and treated water, wastewater and/or sludge including influent and effluent flows of water and wastewater;

Collects samples of sewer overflows, performs in-house testing of parameters, sends samples to contract lab and coordinates data into a final report;

Monitors and maintains a laboratory quality assurance program including quality control procedures;

Maintains an archive of laboratory data including records of analyses, prepares charts, drafts and reports on plant as required by Federal, State, county and local laws, regulations and standards utilizing a personal computer;

Provides plant operators with information and data required for proper control of treatment processes;

Writes and updates laboratory manuals and standard operating procedures to conform to NELAP standards utilizing a personal computer;

Operates and performs basic maintenance on a variety of laboratory equipment such as sterilizers, microscopes, centrifuges, stills and incubators;

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

LABORATORY TECHNICIAN (TREATMENT PLANTS) – contd.

Prepares a variety of culture media for development and identification of organisms;

Inventories laboratory supplies, equipment, materials and chemicals, prepares bids, and purchases supplies, equipment, materials and chemicals up to a set purchase amount;

Reports orally and in writing to the Director of Municipal Utilities as required.

FULL PERFORMANCE, KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Good knowledge of modern technical laboratory techniques, testing methods, terminology and safety precautions related to analysis of water, wastewater and sludge;

Good knowledge of equipment, materials, and chemicals related to analysis of water wastewater and sludge;

Good knowledge of the principles and practices of analytical chemistry and microbiology as they relate to water, wastewater and sludge treatment and analysis;

Good knowledge of record keeping and reporting as required by Federal, State, county and local laws and regulations;

Working knowledge of principles and practices of operating water and wastewater treatment plants;

Ability to operate technical laboratory equipment and safely store and utilize laboratory materials and chemicals;

Ability to follow complex oral and written instructions;

Ability to communicate effectively both orally and in writing including technical writing;

Ability to operate an alphanumeric keyboard.

MINIMUM QUALIFICATIONS: Either:

LABORATORY TECHNICIAN (TREATMENT PLANTS) – contd.

- (a) Graduation from a regionally accredited NYS college or university with an Associate's degree in mathematics, science, biological technology, laboratory technology or closely related field and three (3) years of laboratory experience performing physical, chemical, bacteriological and microscopic analysis or examinations; or
- (b) Graduation from high school or possession of a high school equivalency diploma and five (5) years experience as stated in (a); or
- (c) An equivalent combination of education and experience as defined by the limits of (a) and (b).