

Jurisdiction: City of Ithaca

Jurisdictional Class: Competitive

Adopted: 09/10/81

Revised: 06/13/95, 05/19/97, 02/26/01, 04/06/05, 10/14/09, 09/15/10, 09/07/22

WATER TREATMENT PLANT OPERATOR

DISTINGUISHING FEATURES OF THE CLASS: The work involves responsibility on an assigned shift for the efficient and effective operation and maintenance of a Type 1-A water treatment plant and its ancillary facilities for the production of potable water that meets or exceeds state and federal requirements. The water treatment plant contains processes for filtration with pretreatment, chemical softening, disinfection, pumping and waste handling. The incumbent operates, maintains and repairs a variety of plant equipment and machinery. The incumbent also performs laboratory tests and other analyses related to water filtration and treatment processes, the water distribution system, waste handling, the watershed, regulatory requirements and other related tests being run concerning the water system as a whole. Buildings and grounds maintenance activities are also regular duties of this position. The work is performed under the general supervision of the Chief Water Treatment Plant Operator in accordance with established policy, with leeway allowed for the exercise of independent judgment in planning and carrying out the details of the work. Does related work as required.

TYPICAL WORK ACTIVITIES:

Operates water treatment plant equipment and machinery, including pumps, valves, motors, compressors, air blowers, chemical feed equipment, monitoring equipment and related plant equipment and machinery;

Reads meters, gauges and related monitoring equipment to obtain data on plant processes, records data and adjusts plant processes for efficiency and effectiveness;

Inspects plant equipment and machinery on a daily basis and performs basic maintenance and repairs to mechanical, chemical and electrical control systems;

Inspects the building and grounds in relation to the basic system and related processes; reports problems to higher level personnel; performs or assists with basic maintenance and repairs as needed;

Collects samples and performs a variety of laboratory tests and other analyses related to the water processes, water distribution system, booster chlorination, waste handling, watershed programs and for regulatory reporting. These include, but are not limited to, testing for pH, total suspended solids, bacteriology, turbidity, soluble iron, sediments, disinfection by-products and conductance;

Backwashes filters and lines with water and compressed air; washes filter beds and settling basins;

Mixes chemicals and fills water treatment tanks and monitors, regulates and adjusts chemical feed equipment to ensure the addition of proper dosages;

Keeps a log of plant operations and related records for overall operations and regulatory purposes;

Operates and maintains the safety related equipment in use for the plant facilities, maintenance and personal protection, and adheres to the policies in effect;

Assists with the training of new plant operators;

Assists in the supervision of laborers, other employees and contractors on site working on projects, in relation to aspects that affect operations, water quality, safety and the installation or maintenance of new processes and equipment;

Performs a variety of custodial duties in connection with the cleaning and maintenance of the plant and grounds;

Assists in maintaining the inventory of bulk chemicals, equipment parts and other plant supplies; may purchase or order parts, supplies or chemicals as necessary;

Receives after hours emergency phone calls for the Department of Public Works and calls out appropriate employees for response pursuant to existing policies.

Water Treatment Plant Operator

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FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES, PERSONAL CHARACTERISTICS:

Good knowledge of the principles and practices involved in the operation and maintenance of a Type 1-A Water Treatment Plant; good knowledge of federal, state and local laws and regulations applicable to a water treatment plant and the relevant wastewater regulations; working knowledge of the materials, tools, equipment, practices, terminology, chemicals and safety practices and regulations involved in operating and maintaining a water treatment plant; working knowledge of laboratory principles and practices, equipment, materials and chemicals as they relate to water treatment testing; working knowledge of the principles and applications of physics, chemistry, biology, limnology, hydraulics and bacteriology as applied to water purification and treatment; working knowledge of the principles, practices and equipment involved in operating and maintaining a water transmission and distribution system, including those related to water storage tanks and pump stations; ability to analyze and organize data and prepare records and reports; ability to utilize a computer in relation to plant monitoring, data input and organization, and reports; ability to make routine laboratory and field tests for control of plant operations; ability to understand and follow oral and written instructions; ability to communicate effectively with co-workers and the public; ability to successfully work with and serve a diverse local community; mechanical aptitude; physical condition commensurate with the demands of the job.

MINIMUM QUALIFICATIONS:

- A. Possession of an Associate's Degree in Water/Wastewater Technology, Environmental Science, Engineering Technology, physical sciences, chemistry, biological sciences, life sciences or a closely related field with similar course curriculum; or
- B. Graduation from high school or possession of a high school equivalency diploma and two (2) years of full-time paid experience, or its part-time paid equivalent, in the operation of a water treatment plant; or
- C. An equivalent combination of training and experience as defined by the limits of (A) and (B) above.

Note: College degrees 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 and/or U.S. Secretary of Education. If an applicant's degree was awarded by 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 REQUIREMENTS:

- 1. Possession of a Grade II-A "Assistant Operator" certificate issued under the provisions of Section 5-4.2 of the New York State Sanitary Code at the time of appointment and maintenance of said certification for the duration of employment.
- 2. Possession of a valid New York State Class D driver license or a valid driver license equivalent to a New York State Class D driver license at the time of appointment and maintenance of said license for the duration of employment.