

WASTEWATER TREATMENT PLANT INSTRUMENT TECHNICIAN

As of 1/1/2023 \$26.09-\$30.09

DISTINGUISHING FEATURES OF THE CLASS: Under general supervision, performs skilled electronic and electrical work involving the troubleshooting, installation, and repair of the sophisticated and elementary, instrumentation power and control systems in the wastewater treatment facility, or sewer systems. The work involves responsibility for the installation, calibration, maintenance and repair of electronic instruments and devices used to operate, measure and monitor wastewater treatment processes. The work is performed under the general supervision of the Wastewater Treatment Plant Head Electrician 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:

Assist in the installation and repair of assigned instrumentation and electrical systems. Install, troubleshoot, and repair instrument and electrical equipment associated with controllers, transmitters, samplers, low elements, gas detection systems, level and temperature devices, pH analyzers, density probes and analyzers, variable frequency motor drives, programmable controllers, electrical distribution systems, automatic transfer switches, and on site power generation system. Isolate and correct end elements, such as transmitters and analyzers. Assists in maintaining and calibrating computer based telemetry equipment. Assist in troubleshooting, repair and calibration of complex control loops containing many elements such as: motor starters, pressure to current converters, pulse to current converters, voltage to current converters, level and/or flow devices, networks, and work stations. Solve interface problems between and elements and the computer control system, and maintain a daily log. Modify, replace, or rebuild old equipment to facilitate maintenance and/or upgrade instrument systems. Assist in preventive maintenance, calibration and testing program to carry out a continuous program of instrument inspection and maintenance in an effort to preclude equipment failure and related process control problems.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Good knowledge of the principles and practices involved in maintaining, repairing and installing electronic instruments and equipment necessary to the operation of a wastewater treatment processes; Good knowledge of the practices, methods, tools, materials, and equipment used in the maintenance and repair of electronic equipment, including

- Electrical circuits and wiring systems including the advanced principles of electrical and electronic theory.
- The theory, principles, and applications of solid state circuitry as used in computers and programmable controllers.
- Occupational hazards and standard safety precautions necessary in the work

Knowledge of network linked computer systems and computer based real time control systems; Knowledge in installing and repairing and installing computers and computer related equipment such as controls, work-stations, networks, personal computers, etc. Skill in operation of hand and power tools; Ability to analyze and organize data and prepare records and reports; Ability to understand and interpret complex oral instructions and 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; Mechanical aptitude; Ability to operate a personal computer and utilize common office software programs including word processing, spreadsheet, and database at an acceptable rate of accuracy and speed; Physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS: Either:

- (a) Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with an Associate's degree in electrical technology or electronics or closely related field and two (2) years of experience maintaining, repairing and installing electronic equipment; or
- (b) Graduation from high school or possession of a high school equivalency diploma and four (4) years of experience as defined by the limits of (a); or (c) An equivalent combination of training and experience as defined by the limits of (a) and (b); and

SPECIAL REQUIREMENT: Possession of a New York State Driver's License is required at time of appointment and must maintain the license during the entire length of appointment.

Adopted: 7/14/84 (Competitive)

Revised: 4/11/07 (Competitive)

Revised: 3/27/09

Revised: 12/18/13