

Jurisdictional Class: Competitive  
EEO Category: Skilled Craft  
Adopted: 03/30/2023

## **SENIOR WASTEWATER TREATMENT PLANT INSTRUMENTATION TECHNICIAN**

**DISTINGUISHING FEATURES OF THE CLASS:** This supervisory position exists in a wastewater treatment plant and involves supervision of and responsibility for installing, calibrating, maintaining, troubleshooting, and repairing highly technical electronic equipment including instrumentation, low voltage electrical devices, Programmable Logic Controllers (PLC's), and telemetry equipment which is part of the automatic operation of the facility. The incumbent works with considerable independence and is directly supervised by the Wastewater Treatment Plant Maintenance Superintendent, or Wastewater Treatment Plant Maintenance Supervisor in the absence of the Superintendent, in coordination with the Chief Wastewater Treatment Plant Operator. This position requires employee to set priorities, determine work to be done, and lay out the work with or without plans, diagrams, and specifications. Employees in this class may be required to operate motor vehicles. Supervision is exercised over the Wastewater Treatment Plant Instrumentation Technician and any other helpers assigned to specific projects. The incumbent does related work as required.

### **TYPICAL WORK ACTIVITIES:** (Illustrative Only)

Supervises and participates in repairs, maintenance, and installation of process control, monitoring, recording, and indicating instruments, such as flow meters, level and pressure sensors, variable frequency drives (VFD's), PLC's, radio, telemeter devices and any other type of transducer that measures pressure, flow, or liquid levels within the system and related physical properties;

In charge of calibration, and troubleshooting electronic instruments such as flow and gas measuring devices, level and pressure sensors, transmitting and receiving devices, indicators, recorders, and chemical/sludge feed equipment, alarm systems, Supervisory Control and Data Acquisition (SCADA) systems, and PLC's;

Maintains, calibrates, and repairs instrumentation test equipment such as volt and ohm meters, gas detectors, oxygen deficiency meters, pH testers, dissolved oxygen meters, etc.

Maintains and repairs digital computer equipment such as analog to digital converters, and contact input/output boards.

Maintains comprehensive and accurate records of maintenance work performed;

Maintains instrument as-built documentation;

Makes recommendations to superiors relative to changes designed to improve the efficiency of operation and/or devices and equipment for use in the system;

Consults with supervisors and/or manufacturers' representatives on difficult repairs and installation of new or modified equipment;

Maintains and installs electronic equipment and instrumentation at the main wastewater plant and its pumping stations;

May direct the work of a small number of skilled, semi-skilled, and relatively unskilled workers in installation, maintenance, and repair of instrumentation equipment.

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**FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

Thorough knowledge of the operation and function of instrumentation, communication and electrical/electronic devices; thorough knowledge of the principles, practices and theories of low voltage electrical and control systems; good knowledge of operation and theory of transducers and other technologies for the measurement of physical properties, such as pressure, flow, and liquid level in process piping and structures; working knowledge of theory and operation of digital computer logic, equipment and SCADA systems; skill in the use of tools and test equipment used in installation, maintenance and repair of industrial instrumentation equipment; proficiency in the reading of blueprints, electrical and instrumentation schematics, and schedules; ability to follow oral and written instructions; ability to troubleshoot various electrical/electronic devices, including relay/electronic controls and monitoring systems; initiative and resourcefulness in solving mechanical, electrical and electronic problems; ability to plan and layout instrumentation work; ability to get along well with others.

**MINIMUM QUALIFICATIONS:**

- (A) Possession of Bachelor's Degree in electrical engineering technology, computer engineering technology, electrical technology, industrial automation engineering technology, industrial instrumentation and control, or a closely related field **AND** two (2) years of experience in industrial instrumentation installation, maintenance and repair work or installation, maintenance, and/or repair of electronic equipment, control systems and/or instrumentation in a public or private setting; **OR**
- (B) Possession of Associate's Degree in electrical engineering technology, computer engineering technology, electrical technology, industrial automation engineering technology, industrial instrumentation and control, or a closely related field **AND** four (4) years of experience in industrial instrumentation installation, maintenance and repair work or installation, maintenance, and/or repair of electronic equipment, control systems and/or instrumentation in a public or private setting; **OR**
- (C) Graduation from high school or possession of a high school equivalency diploma **AND** six (6) years of experience in industrial instrumentation installation, maintenance and repair work or installation, maintenance, and/or repair of electronic equipment, control systems and/or instrumentation in a public or private setting.

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

**NOTES:**

1. 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.
2. Verifiable part-time experience as described above will be pro-rated toward meeting full-time experience requirements.

Adopted: 10/01/2021  
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