



City of Woodland

SENIOR WATER/WASTEWATER INSTRUMENTATION TECHNICIAN

DEFINITION:

To plan, organize, perform tasks and supervise in a leadership capacity, the daily operations of the Water/Wastewater Instrumentation Technicians (WWIT) and Industrial Electrical Electronics Technician (IET) . Installs, tests, maintains, calibrates, troubleshoots, upgrades and repairs City-owned electrical, electronic and instrumentation.

SUPERVISION RECEIVED AND EXERCISED:

General supervision is provided by the Electrical/Sign and Markings Supervisor, or his/her designee. This is a journey-level position that will provide supervision over Industrial Electrical Electronics Technician and Water Wastewater Instrumentation Technician positions, as well as less experienced fulltime and temporary staff.

EXAMPLES OF DUTIES:

The following are typical of duties encompassed by the position, not an all inclusive or limiting list:

Essential Job Functions:

- Assist the Electrical/Sign and Markings Supervisor with development of maintenance procedures.
- Perform Employee Performance Appraisal
- Promotes, maintains and corrects unsafe/working conditions.
- Assists in training personnel as assigned.
- Provide lead supervision and technical support to staff.
- Install, inspect, maintain, repair, troubleshoot, calibrate, program, modify, upgrade and test a wide variety of electrical/electronic/instrumentation equipment and software related to pumping stations, water treatment plants, City facilities, emergency back-up power, utility plants, and Supervisory Control and Data Acquisition (SCADA) systems; systems may include, transmitters, recorders, PID loop controllers, atmosphere testers, programmable logic controllers (PLC's), ultrasonic meters, network servers, related communication devices (radio's and antenna's), variable frequency drive systems and pneumatic and telemetry equipment.
- Verify equipment compatibility with existing devices.

- Proficiently read and interpret circuit diagrams, such as piping and instrumentation diagrams (P&ID's), ladder logic, construction drawings, and service and repair manuals.
- Prepare plans and specifications for the procurement of parts and supplies on assigned projects.
- Ensure that proper safety precautions and safe work methods are followed.
- Assist with the preparation of standard operating procedures.
- Inspect contract construction projects and submittals.
- Inspect and test equipment.
- Develop punch lists for work to be completed or corrected during construction.
- Perform other duties as assigned.
- Regular, predictable, consistent and timely attendance is an essential function of the position, in that the failure of such attendance undermines the City's ability to provide critical public services impacting public health.

OTHER JOB FUNCTIONS:

- Prepares and maintains accurate maintenance and repair records.
- Presents oral and written reports.
- Creates work orders and enters invoices.
- Performs electrical inspections.
- Uses and maintains a variety of tools and test equipment as required.
- Answers emergency calls and performs emergency repairs.
- Meets all standby program requirements; take standby duty, work alternative shifts including weekends and holidays.
- Assist in the annual budget preparation for the Electrical Division, as directed.
- Perform related duties as assigned.

QUALIFICATIONS:

Knowledge of:

- In-depth knowledge of electrical/electronic/instrumentation equipment as it relates to personal computers, maintenance management software, SCADA systems, industrial controls, communication devices, telemetry, and their operational and maintenance software programs.
- Methods, tools, and equipment used to maintain, repair, test, troubleshoot, calibrate and perform preventative maintenance on an electrical, electronic, instrumentation and SCADA systems, principles and practices of leadership.
- Safe work practices, applicable codes, laws and ordinances, circuit diagrams, and shop mathematics.

Skill to:

- Use electrical and electronic tools and equipment skillfully and safely.
- Read, interpret and follow electrical and process control plans and specifications.

- Examine and diagnose causes of electrical and electronic failures.
- Respond quickly in emergencies; interact effectively and courteously with the public.
- Communicate clearly and concisely, both orally and in writing.
- Keep accurate records.

Ability to:

- Lead, organize and review the work of staff in the assigned groups.
- Work independently and exercise good judgement.
- Diagnose malfunctions in a variety of electrical, electronic, SCADA and instrumentation systems.
- Use and care for tools and test equipment used in maintaining and repairing electrical, electronic and instrumentation systems.
- Ability to create new, and modify existing computer aided design (CAD) documents.
- Make cost estimates of labor and materials, maintain detailed records.
- Follow oral and written directions.
- Read and interpret electrical control drawings, plans and specifications.
- Establish and maintain effective work relationships with those contacted in the performance of required duties.
- Maintain effective audio-visual discrimination and perception needed for making observations, communications with others.
- Read, write, and operate assigned equipment.
- Setup efficient and safe traffic control worksites in high volume vehicle traffic area while applying good judgement and practical knowledge to help resolve unusual or irregular problems in the area of assigned work.

MINIMUM EDUCATION AND EXPERIENCE:

Education:

High School diploma or equivalent is required.

Associate Degree in electronics, instrumentation, electrical technology, or closely related field is highly desirable.

Education:

Four (4) years of recent experience in industrial instrumentation and control.

One (1) year of completed college or technical institute coursework in a closely related field. May be substituted for one (1) year of experience, to a maximum of two (2) of the required four (4) years of experience.

Two (2) years of supervisory experience is highly desirable.

License or Certificate:

Possession of a valid California Driver's License, upon hire.

Current California Water Environment Association (CWEA) Electrical/Instrumentation Technologist Level II certificate is required upon hire.

Possession of a valid International Municipal Signal Association (IMSA) Work Zone Safety Level Certification or approved equivalent is required prior to completing the probationary period.

State of California General Journeyman Electrical License is highly desirable.

ADA COMPLIANCE

Physical Ability: Positions in this class typically require: climbing, balancing, stooping, kneeling, crouching, reaching, standing, walking, pushing, pulling, lifting, fingering, grasping, talking, hearing, seeing, and repetitive motions.

Very heavy work: Positions in this class will exert in excess of 100 pounds of force occasionally, and/or in excess of 50 pounds of force frequently, and/or in excess of 20 pounds of force constantly to move objects.

OTHER REQUIREMENTS:**Sensory Requirements:**

Requires the ability to recognize and identify similarities and differences between shade, degree or value of colors, shapes, sounds, forms, textures or physical appearance associated with objects and people.

Environmental Factors:

May be subjected to moving mechanical parts, electrical currents, vibrations, fumes, odors, dusts, gases, poor ventilation, chemicals, oils, extreme temperatures, work space restrictions, intense noises, and environmental dangers.