

Title: **INSTRUMENTATION CONTROL TECHNICIAN** Department: Water Utility

Job Code: 3581 Salary Grade: 111

FLSA Status: Non-Exempt

POSITION SUMMARY:

Under direct supervision from the Water Control System Supervisor, performs routine, skilled electrical maintenance, repairs and construction of new electrical and control systems for water equipment. Utilizes a variety of tools and test equipment used for the installation, maintenance, troubleshooting and repair of electrical, instrumentation and control systems. Performs routine maintenance, repair and calibration of instrumentation equipment, and automatic process control equipment. Incumbents are required to have the knowledge, skills, and abilities to perform the full range of required duties/responsibilities with limited direction and supervision.

ESSENTIAL JOB FUNCTIONS:

- Recognizes abnormal operating equipment and uses troubleshooting methods and skills to diagnose, analyze and make the required repairs on electrical, instrumentation & control equipment, pump controls, electrical motors and control circuits; reads and interprets maps, schematics, plans, blueprints and specifications.
- Performs daily electrical, instrumentation & control system preventative maintenance of the water systems.
- Installs a variety of new and replacement electrical, instrumentation & control equipment at water facilities.
- Safely works with a variety of voltages up to 300VDC and up to 480VAC.
- Installs, calibrates and performs maintenance of DC solar systems and components.
- Calibrates and repairs motors, motor control equipment, flow meters, level recorders, pressure devices, electronic instruments, and telemetry equipment; performs electrical, instrumentation & control system maintenance, repair and calibration to a variety of safety equipment.
- Observes safe work methods and safety practices related to the work; cones and flags work sites to secure from traffic; uses appropriate safety equipment.
- Maintains detailed records on equipment repaired, time spent and material usage.
- Formulates new standard operating procedures and records As-Built modifications.
- Maintains and is accountable for assigned tools and equipment. Keeps tools and equipment in good condition and has tools repaired as necessary.
- Responds to emergency situations during off hours as required.
- Familiar with and utilizes specialized test equipment including, but not limited to, digital and analog Volt-Ohm meters, Megohm-meters, Oscilloscopes, Rotation meters, Power Quality Monitors, Ammeters, Pressure Calibrators, Milliamp simulators, motor winding testers, power tool fault analyzers, and cable/conduit locators.

Last Revision date: 08/2021 Page 1 of 2

- Follows and practices NFPA 70B and NFPA 70E requirements.
- Maintains regular and reliable attendance.
- Other duties as assigned.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

- Knowledge of applicable Town, State and Federal statutes, ordinances, codes, rules and regulations governing the Water Utility.
- Ability to perform a variety of skilled, complex and technical electrical repairs and maintenance of equipment related to the operation of the water systems.
- Skill in diagnosing problems, recognizing worn or damaged parts and rebuilding equipment in field situations.
- Ability to troubleshoot, operate and properly repair electrical, instrumentation and control systems.
- Ability to effectively manage the utility's Lock-out/Tag-out program.
- Ability to understand and enforce the Uniform Building Code, the National Electric Code, and NFPA 70B and NFPA 70E requirements.
- Ability to read, interpret and understand manuals, blueprints, construction drawings, schematics and electrical drawings.
- Ability to work under routine and emergency conditions and perform a wide variety of physically strenuous tasks sometimes in severe weather.
- Ability to work cooperatively with other staff including contractors and vendors.
- Ability to follow verbal and written instructions.
- Ability to exercise independent judgment and initiative without close supervision.
- Ability to effectively use personal computer hardware and software including database entry, spreadsheets, Microsoft Excel, Access, Word and OneNote systems.
- Ability to maintain records and perform mathematical computations.
- Ability to safely lift 50 pounds on an occasional basis.

MINIMUM QUALIFICATIONS:

- A high school diploma or GED.
- Four (4) years' experience in the installation, maintenance, repair and alteration of electrical, instrumentation & control equipment in a public water utility **OR**
- An equivalent combination of education and experience.
- Must possess at the time of application a Grade II Water Distribution certificate issued by the Arizona Department of Environmental Quality and must obtain a Grade III within one year of hire date.
- Must possess at time of application a valid Arizona Driver's License.

ENVIRONMENTAL FACTORS and WORKING CONDITIONS:

- Work is performed in an indoor and outdoor environment.
- Position is subject to after-hours call out 24/7.
- Position is included in the water operations on-call rotation.

Last Revision date: 08/2021 Page 2 of 2