



## JOB DESCRIPTION

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**JOB TITLE:** Electrical Instrumentation Technician

**JOB CODE:** 02240

**DEPARTMENT:** Public Works – Utility Division

**FLSA STATUS:** Non-Exempt

**REPORTS TO:** Superintendent Utility System

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### SUMMARY OF JOB PURPOSE

Performs skilled work in the installation and operation of the County's water treatment and distribution systems, including wastewater collection, pumping, and treatment facilities.

### ESSENTIAL FUNCTIONS

1. Plans, troubleshoots, repairs, and installs wiring circuits, transformers, motors, protective devices, switches, control devices, alarm systems, and lighting systems; maintains, tests, repairs, and services generators, transfer switches, and appurtenant equipment.
2. Designs, installs, tests, calibrates, maintains, and repairs electronic process control systems and components, data acquisitions systems, including flow measurements, level measurement, process control systems and instrumentation, programmable logic controllers and alarm systems.
3. Contacts vendors and other agencies to determine availability, applicability, and performance of equipment and components; purchases required parts and equipment; maintains accurate records of work performed, materials used, and associated costs.
4. Works with County personnel and contracts engineers to specify or recommend equipment, designs for equipment, process control, and data acquisition systems; inspects and tests components installed by contractors.
5. Fulfills "on-call" requirements for a 7-day consecutive period on a rotating basis; responds to emergency calls and works overtime as required; fulfills routine water, wastewater maintenance, and operations functions as required; completes paperwork as needed for cost reports, work logs, etc.
6. Provides excellent customer service to customers and business partners.

### QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

### EDUCATION and/or EXPERIENCE

High School Diploma or General Education Degree (GED) plus technical course work in electronics/instrumentation, and a minimum of five (5) years experience in the installation, maintenance, and repair of electrical, instrumentation, and control systems utilized in water and wastewater facilities.

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This job description indicates, in general, the nature and levels of work, knowledge, skills, abilities and other essential functions (as covered under the Americans with Disabilities Act) expected of the incumbent. It is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities required of the incumbent. Incumbent may be asked to perform other duties as required.



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#### **LANGUAGE SKILLS**

Ability to read and interpret documents such as safety rules, operating and maintenance instructions, and procedure manuals; write routine reports and correspondence; speak effectively before groups of customers or employees of the County.

#### **MATHEMATICAL SKILLS**

Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals; compute rate, ratio, and percent, and create and interpret bar graphs.

#### **REASONING ABILITY**

Ability to apply common sense understanding to carry out instructions furnished in written, oral, or diagram form; deal with problems involving several concrete variables in standardized situations.

#### **OTHER KNOWLEDGE, SKILLS, & ABILITIES**

Knowledge of methods, procedures, and practice of electricity and electronic control systems; methods, materials, tools, equipment and practices used in the design, installation, testing, calibration, maintenance, and repair of process control and data acquisition systems; computer programming as applied to controllers, SCADA, and electronic control equipment used in water and wastewater facilities; understand occupational hazards and practice safe work habits related to the work. Ability to understand and perform analog, digital, frequency or time calibration of electronic systems; replace and repair electrical subassemblies, integrated circuits, relays, micro-processing chips; understand and practice the safe use and care of tools and equipment used in maintaining and repairing electronic devices; operate electronic testing and calibration equipment. Knowledge of specific health concerns related to drinking water standards; to confined space entry; hazardous materials handling; OSHA, and other federal, state, and local safety requirements.

#### **CERTIFICATES, LICENSES, REGISTRATIONS**

Valid Driver's License with an acceptable driving record; possess or have the ability to obtain within one (1) year of employment a Grade II Electrical/Instrumentation certification from California Water Environment Association (CWEA), and AWWA or State of Nevada Grade I certification in water or wastewater.

#### **PHYSICAL DEMANDS**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to stand, walk, sit, and drive; use hands to finger, handle, or feel; reach with hands and arms; talk and hear. The employee occasionally is required to climb, balance and stoop, kneel, crouch, or crawl; must frequently lift and/or carry up to 25 pounds and may occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

#### **WORKING ENVIRONMENT**

Work is performed in outdoor and indoor environments with intermittent to frequent exposure to outdoor weather conditions. The employee is occasionally exposed to moving mechanical parts, vibrations, noise, dust, fumes and odors, dampness, and raw sewage. The noise level in this work environment is usually moderate to loud.

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I have read and understand the contents of this Job Description, and I have received a copy of this Job Description for my records.

PRINT NAME: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

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