

CALLEGUAS MUNICIPAL WATER DISTRICT JOB DESCRIPTION

Job Title: SENIOR INSTRUMENTATION TECHNICIAN

Division: Operations and Maintenance

Position Type: Full Time

Reports To: Control System Supervisor

FLSA Status: Non-Exempt

Revision Date: January 2006

POSITION SUMMARY

Working individually or as a member of a crew, this journeyman position performs skilled work in the Control Systems division. Position requires a DOHS Water Distribution Operator Grade 1 and a Water Treatment Operator Grade 1 certificate; a knowledge in electrical and control theory; the abilities to work unsupervised and effectively communicate; and display initiative, versatility and innovation in solving complex problems and complicated work assignments. Typical duties include the installation, maintenance, repair, calibration and testing on a variety of process control interfaces, metering and monitoring equipment used in water distribution, water treatment and power generation; the maintenance and monitoring of cathodic protection systems and the Lake Bard piezometers; and the documentation of weekly and monthly water sales.

ESSENTIAL DUTIES AND RESPONSIBILITIES

To perform this job successfully, an individual must be able to perform each essential duty satisfactory. 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 duties and responsibilities.

- Troubleshooting, diagnostic analysis, and fault isolation of a variety of electrical, electronic, electro-mechanical and hydroelectric equipment and systems; and
- Required to perform installation, testing, evaluation, modification, calibration, maintenance and repair of instrumentation,
- Calibration and preventative maintenance of transmitters, controllers, meters, recorders, and other equipment used in monitoring, metering, water treatment and process control; and
- Developing calibration and maintenance schedules and procedures, maintaining metering and monitoring records, generating monthly sales data, compiling monthly and annual reports and maintaining an inventory of spare parts; and
- Performing monitoring, maintenance, technical support and documentation of cathodic protection systems for pipelines and steel tanks; and
- Conducting monthly readings and documenting piezometer water levels, outflows and other monitors associated with the Lake Bard dam and dikes; and
- Performs other duties as assigned.

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- Be responsible for their own safety and the safety of coworkers by recognizing hazards and potentially hazardous situations, and having an awareness of safe practices on the job site.

SUPERVISOR RESPONSIBILITIES

This position does not include supervisory responsibilities.

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 Experience

A high school diploma or general education degree (GED) or a minimum of two years related experience and/or training or equivalent combination of education and experience in the installation and maintenance of electrical equipment and instrumentation. Formal or in-service training courses in cleaning, adjusting and replacement of mechanical equipment/parts for water treatment, storage, pumping, pressure control and power generation. Knowledge of safety requirements and practices required for working around high voltages and in confined spaces. Formal and/or on-the-job training involving electrical control, digital and analog theory, and circuit analysis. Two years experience in the operation and maintenance of equipment such as meters, transmitters, receivers, electrical control applications. Demonstrated ability to perform measurements with electronic test equipment such as, signal generators, oscilloscopes, function generators, and electronics counters. Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals. Should have the ability to compute rate, ratio, and percent and to draw and interpret bar graphs.

Skills and Abilities

Ability to read and interpret documents such as safety rules, operating and maintenance instructions, procedure manuals and blue prints. The Instrumentation Technician should be able to write routine reports and internal memoranda, plus be able to communicate effectively with employees and customers. Must have knowledge of safety requirements for working around heavy and power equipment, construction sites, high voltages, and in confined spaces. The position requires the individual to apply common sense understanding in carrying out instructions furnished in written, oral, or diagram form and be able to solve day-to-day problems, which may occur in stressful environments. Must have a thorough knowledge of methods, materials, equipment used in mechanical and electrical equipment maintenance and repair. Basic water hydraulics and pneumatics and be skilled in the use of precision measurement devices.

EQUIPMENT TO BE USED

The Instrumentation Technician must demonstrate an ability to perform maintenance and measurements with tools and test equipment; such as, multimeters (VOM), meggers, power

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heads, electric benders and various other power and hand-tools. Must also be able to use radio and telephones to communicate, and office equipment; such as, computer terminals and printers.

The physical demands described 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; use hands to finger, handle, or feel; reach with hands and arms; and talk or hear. The employee frequently is required to climb stairs and ladders or balance and is occasionally required to sit; stoop, kneel, crouch, or crawl; and taste or smell. Instrumentation Technicians must be able to regularly lift and/or move up to 10 pounds, frequently lift and/or move up to 25 pounds, and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus. Personal protective equipment provided by the employer is regularly required to be worn. The employee must have the ability to be able to wear and operate a half and full face air purifying respirator.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The Instrumentation Technician is normally required to work in an outdoor environment, which frequently consists of hillsides and uneven terrain and exposure to allergens. In addition the employee may work in the industrial environment of the water treatment plant, well fields, pipelines, support-structures, and construction sites, confined space environments and is frequently exposed to moving mechanical parts.

The employee is occasionally exposed to interior wet and/or humid conditions; high, precarious places; fumes or airborne particles; toxic or caustic chemicals; risk of electrical shock; vibration and moving mechanical parts. The noise level in the work environment is occasionally loud. The employee is a designated Emergency Services Worker and is occasionally called upon to work overtime or odd schedules.

SPECIAL REQUIREMENTS

The individual must possess a current California Operators license and have a good driving record. A driving record provided by the Department of Motor Vehicles showing less than two (2) points assessed within the last 36 months and/or no serious or multiple traffic violations or accidents or failure to appear notices within the last 36 months.

The applicant will agree to submit to and pass the District's pre-employment, post-offer medical examination including drug and alcohol screening performed by a physician chosen by the

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District. The applicant will agree to authorize background reference checking with past employers and personal references.

The Instrumentation Technician must also possess or obtain a State of California Department of Health Services Water Distribution Operator Grade 1 certificate with 18 months of hire or assignment.