

**CALLEGUAS MUNICIPAL WATER DISTRICT
JOB DESCRIPTION**

Job Title: Control Systems Specialist

Department: Operations and Maintenance

FLSA Status: Non-Exempt

Reports to: Control Systems Supervisor

Position Type: Full-Time

Revision Date: January 2019

POSITION SUMMARY

Under general supervision, the Control Systems Specialist performs highly skilled control systems and electrical work in the Control Systems Division, for the Engineering Department, or directly for the Manager of Operations and Maintenance (O&M); possesses a high level of knowledge of control theory and water system facilities, operations, and instrumentation; and performs design review for the Engineering and O&M Departments, develops control philosophies for the operation of District facilities, coordinates with contractors and consultants on installation and integration of control equipment and logic, and develops controls related District standards.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to this position.

- Perform high level design review for Engineering and O&M Departments.
- Develop complex control philosophies for the operation of District facilities.
- Participate in project planning meetings and discussion acting as O&M's and Engineering's controls specialist.
- Review submittals and proposals from contractors and consultants and provide constructive feedback. Examples include technical specifications, start-up plans, O&M manuals, control loop descriptions, binary logic diagrams (BLDs), ladder diagrams, wiring diagrams, electrical and instrumentation project drawings, and work scopes.
- Coordinate with contractors and consultants on installation and integration of control equipment and logic.
- Establish District standards for controls logic and review all new BLDs for accuracy and to ensure compliance with District standards.
- Respond to controls related requests for information on behalf of the Project Managers.
- Oversee the collection, transmission, and storage of electronic operations data to comply with various regulatory agencies.

- Provide technical assistance and support to retail water agencies who purchase water from Calleguas (purveyors) on start-up of new facilities.
- Perform all metering and water loss investigations related to controls software.
- Attend factory acceptance tests for new supervisory control and data acquisition (SCADA) hardware and software.
- Perform specialty control systems improvement projects for O&M Manager.
- Review programmable logic controller (PLC) cabinet design and perform field installations
- Performs troubleshooting, diagnostic analysis, and fault isolation of a variety of electrical, electronic and electro-mechanical equipment and systems, including motor control centers, motors, and transformers.
- Installs controls and monitoring equipment, and applies control theory in the use of controllers, relays, and other electrical and electronic components in electrical and mechanical applications.
- Analyzes O&M SCADA network performance, establishes network specifications, implements secure network access protocols, and troubleshoots and repairs network components.

JOB REQUIREMENTS

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 duties and responsibilities.

Education and Experience:

- High school diploma or general education degree (GED) and five years of related experience and/or training; or equivalent combination of education and experience.
- Extensive knowledge of network connectivity, protocols, network security devices, network types, including wireless, fiber optic or Cat5, and common operating systems, such as Windows and UNIX.
- Trained in NFPA 70E Electric Safety in the Workplace.
- State Water Resources Control Board Water Distribution Operator Grade 3 certificate.
- State Water Resources Control Board Water Treatment Operator Grade 3 certificate.
- It is preferred that the candidate have the following:
 - Unity Pro Programming Level 2 certificate.
 - ProWorks NXT Level 2 certificate.
 - Wonderware Application Server and InTouch System Platform certificates.

Knowledge and Skills:

- Ability to understand and interpret engineering reports, work scopes, plans, and specifications.

- Ability to effectively review plans and specifications, blueprints, and diagrams to verify completeness, accuracy, and constructability.
- Ability to make sound decisions regarding design, construction, cost analyses, management, and coordination of large scale water projects.
- Ability to detect flaws in design, construction methods, and materials to ensure compliance with contract plans and specifications, permits, codes, regulations, and laws.
- Ability to maintain detailed records related to in-house and capital projects.
- Understanding of regulatory requirements by agencies including State Water Resources Control Board Division of Drinking Water and Fox Canyon Groundwater Management Agency related to the collection, transmission, and storage of electronic operations data.
- Ability to write clear, concise, and well-reasoned correspondence, reports, and procedures.
- Ability to establish and maintain cooperative working relationships with co-workers, outside agencies, and the public.
- Ability to interact and communicate clearly, tactfully, and effectively with employees; regulatory authorities; representatives of water agencies, utilities, and government agencies; consultants; contractors; and the public.
- Ability to make clear, concise, and informative presentations.
- Ability to command respect of associates through knowledge of work, personal and professional conduct, good judgment, sound decisions, and integrity.
- Proficient in Adobe Acrobat and Microsoft Word, Excel, Outlook, and PowerPoint.
- Ability to perform research and analysis, manage inter-departmental projects, and lead District programs.
- Excellent organizational skills.
- Ability to prioritize assignments and manage a variety of complex tasks under tight deadlines.
- Ability to organize large volumes of technical and legal paperwork.
- Ability to coordinate with other departments in a professional, clear, and responsive manner.
- Ability to exercise sound, expert independent judgment.
- Ability to read and interpret complex rules and regulations.
- Ability to motivate and coordinate the activities of others.
- Ability to perform efficiently and effectively under emergency conditions and use judgment in making quick decisions under pressure.
- Ability to analyze and resolve problems.
- Ability to follow direction.
- Ability to obtain the following certificates:
 - Unity Pro Programming Level 2 certificate.
 - ProWorks NXT Level 2 certificate.
 - Wonderware Application Server and InTouch System Platform certificates.

SUPERVISORY RESPONSIBILITIES

This position does not include supervisory responsibilities.

EQUIPMENT TO BE USED

The Controls Systems Specialist must demonstrate an ability to perform maintenance and measurements with tools and test equipment; such as, multimeters (VOM), meggers, power heads, electric benders, and various other power and hand-tools. Must be able to use radio and phones to communicate; to operate a vehicle to travel to District facilities; to use computers, copiers, printers, projectors.

PHYSICAL AND MENTAL REQUIREMENTS

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 is frequently required to sit and is occasionally required to climb stairs and ladders or balance and stoop, kneel, crouch, or crawl; and taste or smell. The employee 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, and ability to adjust focus. The employee must have the ability to enter confined spaces such as tanks, vaults, and large diameter pipelines.

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 employee works in the industrial environment of a water treatment plant, wellfields, vaults, pipelines, support structures, and confined space environments; and is exposed to moving mechanical parts. The work involves working around toxic and hazardous chemicals used in the water treatment process. 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; electrical arc flash; vibration and moving mechanical parts. The noise level in the work environment is occasionally loud. The employee must be able to respond to a request to work on short notice. 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

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

The employee must be able to work around chlorine and other chemicals used in the treatment of water which are classified by Title 8, California Occupational Safety and Health Regulations, Code Section 339 as extremely hazardous materials and copper sulfate which is a toxic material.