



## JOB DESCRIPTION

### SCADA Coordinator

**Date Prepared:** May, 2014

**SUMMARY:** Under limited supervision, provides technical support to the City Water Division's Supervisory Control and Data Acquisition (SCADA) System, as well as other related application software systems; and performs related duties, as required.

**ESSENTIAL FUNCTIONS:** -- *Essential functions, as defined under the Americans with Disabilities Act, may include any of the following representative duties, knowledge, and skills. This is not a comprehensive listing of all functions and duties performed by incumbents of this class; employees may be assigned duties which are not listed below; reasonable accommodations will be made as required. The job description does not constitute an employment agreement and is subject to change at any time by the employer. Essential duties and responsibilities may include, but are not limited to the following:*

- Install, program, and maintain SCADA and instrumentation equipment at water/wastewater treatment plants, groundwater wells, reservoirs, metering stations, and booster pump sites; design and integrate facilities; plan future improvements; and work with staff to improve the functionality of field operations.
- Install SCADA sensors, wiring, circuit breakers, over-current protection, isolators, terminal blocks, and network switches.
- Assist with preparing cost estimates, budgets, and contracts for consultants.
- Maintain equipment records for assigned sites; update records for new equipment installations.
- Install and maintain SCADA radio communication equipment; program the SCADA radio for correct frequency; test and align radio signal; troubleshoot communication problems on a 24/7 basis.
- Perform SCADA maintenance; download and save Programmable Logic Controller (PLC) programming, sensor calibration, repair and replacement information to laptop or other archive devices; troubleshoot PLC programs.
- Install mainframe SCADA computers, including the design and installation of operating systems, Human Machine Interface (HMI) software, updates, control programming, and displays; configure local area networks (LANs); designs, installs, and programs subnets, routers, bridges, and switches.
- Install firewalls, Virtual Private Network (VPN) and internet access for the field and on-call operator SCADA access from field laptops and home via 24/7 access.
- Test PLCs and radio equipment for reliability and functionality.
- Install and program special software.
- Install alarm system software; program user interface for phone systems, phone system interface, modem and internet access; may also install security systems.
- Design and program reports for operators and supervisors using data files and shared access data systems.

#### MINIMUM QUALIFICATIONS:

##### **Education, Training and Experience Guidelines:**

Associate's Degree in General Engineering, Computer Science, Electronics or a closely related field; AND five years of radio communications/antenna, network administration and SCADA systems design/integration experience; OR an equivalent combination of education, training, and experience.

**Knowledge of:**

- City policies and procedures.
- Network LAN and Wide Area Network (WAN) systems.
- Programming in various languages, including Ladder Logic, Function Diagram, Structured Text, Modbus, Visual Basic, and C++.
- Principles and practices of system troubleshooting.
- Wave propagation, interference sources, antenna selection, and Federal Communications Commission (FCC) regulations regarding microwave radio transmitter data communications systems and requirements.
- Virus and malicious software protection, and intrusion alert systems.
- SCADA software and hardware systems.
- HMI software and programming.

**Skill in:**

- Providing efficient customer service and communicating clearly and objectively both verbally and in writing.
- Organizing with the ability to prioritize work and exercise independent judgment, wisdom, common sense, and initiative.
- Thoroughly carrying out oral and written instructions.
- Using initiative, discretion and judgment within established procedures guidelines and rules.
- Defining problems; establishing facts and drawing valid conclusions.
- Managing situations requiring diplomacy, fairness, firmness, and sound judgment.
- Interpreting and applying City, state, and federal codes, laws and regulations regarding water/wastewater operations.
- Providing efficient customer service.
- Establishing and maintaining cooperative working relationships with supervisors, employees, vendors, suppliers, contractors and the general public.
- Communicating effectively, both verbally and in writing.
- Operating a personal computer and various software applications.
- Establishing and maintaining effective working relationships with those contacted in the course of work, including City and other government officials, community groups, and the general public; and apply safe work practices.

**LICENSE AND CERTIFICATION REQUIREMENTS:**

- Must possess a valid California class “C” driver’s license upon hire and maintain throughout the length of employment with the City of Victorville.
- California Water Treatment Operator Grade I Certification.
- California Water Distribution Operator Grade I Certification.

**PHYSICAL DEMANDS AND WORKING ENVIRONMENT:**

Work is performed both in an office and outdoor work environment. May be required to climb ladders. May be exposed to extreme weather conditions, and dangerous machinery. May be required to lift and carry items weighing up to 100 pounds. Physical demands consist of sitting, standing, walking, stooping, kneeling, crouching, and crawling; use hands and fingers to handle or feel objects, tools, or controls and lifting. Incumbent frequently works near moving mechanical parts occasionally working in high, precarious places and can be exposed to electrical hazards. Incumbent wears personal protection-protective equipment. Incumbent must be able to see and hear in the normal range, with or without correction, and communicate verbally and in written form with great facility and must be able to be understood. Incumbent must have the stamina to work long hours and overtime, if assigned, and must be willing to work an irregular schedule, which includes weekends, holidays, evenings, and/or varying shifts.

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Department Head

\_\_\_\_\_  
Date

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Personnel Officer

\_\_\_\_\_  
Date