

SENIOR SCADA SYSTEM TECHNICIAN

DEFINITION

To organize, assign and review the work of assigned personnel engaged in skilled technical duties in the analysis, design, programming, testing, installation and maintenance of data processing systems, Supervisory Control and Data Acquisition (SCADA), Historical Data Repository (HDR) industrial control system equipment, networking equipment and peripherals; to perform duties requiring specialized knowledge; and to provide technical and administrative support to assigned supervisor.

DISTINGUISHING CHARACTERISTICS

This is the advanced journey level in the SCADA System Technician class series. Positions at this level are distinguished from the other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, the amount of time spent performing the duties, and by the training responsibilities provided to others. Employees perform the most difficult and responsible types of duties assigned to classes within this series, including providing technical and functional supervision over assigned personnel. Employees at this level are required to be fully trained in all procedures related to assigned areas of responsibility.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from an assigned supervisor.

Exercises technical and functional supervision over assigned technical staff.

EXAMPLES OF ESSENTIAL DUTIES – Duties may include, but are not limited to, the following:

Plan, prioritize and review the work of staff assigned to maintain the Environmental Utilities SCADA system, HDR, networking equipment and related equipment.

Develop schedules and methods to accomplish assignments, ensuring work is completed in a timely and efficient manner.

Participate in evaluating the activities of staff, recommending improvements and modifications.

Provide and coordinate staff training and work with employees to correct deficiencies.

Ensure compliance with departmental Industrial Control System (ICS) Policies and Procedures.

Review and recommend approval of project submittals and existing system upgrades, survey sites for SCADA networking equipment system implementation, conduct feasibility studies and prepare and submit related comments.

Plan and schedule new project installations as well as repairs, maintenance, upgrades and modifications to existing equipment.

## Senior SCADA System Technician

- 2 -

Receive and respond to emergency service requests related to the Department's SCADA, HDR and networking systems.

Administer service contracts and monitor the work of consultants.

Evaluate equipment purchases in support of repair and replacement needs.

Troubleshoot SCADA, HDR and networking system software with respect to functionality, performance and reliability.

Assist in the development of specifications for SCADA, HDR and networking equipment and ensure proper installation and preparation of new equipment by vendors and contractors.

Track work orders and maintain records of maintenance and programming performed.

Perform technical duties in support of water and wastewater treatment infrastructure systems, including testing, implementing and maintaining SCADA, HDR and networking applications and systems.

Design, develop and verify reports from systems; prepare and submit project status reports, as required.

Create and maintain user profiles, user permissions, system privileges, passwords and other administrative tasks, maintaining the integrity and security of assigned systems in accordance with departmental ICS Policies and Procedures.

Monitor logs and files for evidence of problems and systems failures; expedite recovery plans as necessary.

Create back-up and recovery plans and perform necessary backup activities at scheduled times.

Perform the most complex duties associated with maintaining, troubleshooting, and configuring network operations related to the SCADA and HDR systems.

Build and maintain positive working relationships with co-workers, other City employees, external stakeholders and the public, using principles of exceptional customer service.

Perform related duties as assigned.

### MINIMUM QUALIFICATIONS

#### Knowledge of:

Principles and practices of technical and functional supervision and training.

Modern operating principles of SCADA, HDR, networking and related peripheral equipment.

SCADA system networking equipment and software.

## Senior SCADA System Technician

- 3 -

Departmental, ICS, and City policies and procedures.

Local, State and Federal laws and regulations pertaining to the Water/Wastewater Utility industry, including compliance reporting and permit processing, as it relates to industrial system monitoring and recordkeeping.

Use and maintenance of remote SCADA services through VPN, direct line and related communications equipment.

Use of diagnostic test equipment and/or software and safety regulations and procedures related to working with SCADA, HDR and networking equipment.

Methods for scheduling maintenance of industrial control systems.

Principles of contract administration and project management.

Industrial Control System network design principles and communication network design principles.

Data storage methodologies.

Modern office software, procedures, methods and computer equipment.

Basic statistical methods and analysis and the use of statistics in reports.

Business correspondence and written report writing.

Safe work practices.

### Ability to:

Organize, implement and direct assigned project activities; work independently with little direct supervision.

Provide technical and functional supervision over assigned staff; effectively train staff throughout Environmental Utilities on Departmental ICS Policies and Procedures and SCADA system use.

Plan, prioritize, supervise and review the work of assigned staff and projects.

Analyze SCADA, HDR and networking and take appropriate corrective measures, as necessary.

Independently perform technical duties involving the analysis, design, programming, testing, implementation and maintenance of data processing systems, SCADA, HDR, and network equipment and peripherals.

## Senior SCADA System Technician

- 4 -

Perform complex troubleshooting, installation and repair work.

Train and instruct system users in use of SCADA, HDR and networking software and operating procedures.

Keep accurate and complete records of work requested and performed.

Evaluate operations and activities, recommend improvements and modifications; read, interpret and follow complex instructions, rules and regulations.

Communicate clearly and concisely both orally and in written form.

On a continuous basis, know and understand operations, and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; and explain jobs to others.

Intermittently, sit while studying or preparing reports; reach, bend, squat, climb, kneel and twist when repairing or installing equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 25 pounds or less.

Establish and maintain effective working relationships with those contacted in the course of work.

### Experience and Training

#### Experience:

Two years of responsible journey experience performing duties similar to a SCADA Systems Technician with the City of Roseville.

AND

#### Training:

An Associate's degree or 60 semester units of college level course work including 18 units in a major field of study and 21 units in general education from an accredited college or university, preferably in computer science, electronics, or a related field. Two years of related work experience can substitute for an Associate's Degree.

### License and Certificate

Possession of a valid California driver's license by date of appointment.

07/10/19