

**MERCED IRRIGATION DISTRICT
SCADA TECHNICIAN**

FLSA Status – Non Exempt

DEFINITION:

Under general supervision, perform various non-professional engineering tasks including research, maintenance, planning, design, construction, and testing of the District's Supervisory Control and Data Acquisition (SCADA) stations, related telemetry equipment, and related District facilities. Conduct field inspections and prepare reconnaissance reports with suggested strategies and improvements. Perform topographic and mapping surveys that tie into District's GIS model. Perform other duties as required.

ESSENTIAL FUNCTIONS OF THE POSITION:

- Assist in overseeing and maintaining the 24/7 Merced Irrigation District (MID) Radio SCADA System.
- Regularly monitor and verify gate position, gate operation, flows and water levels monitored by the SCADA system and confirm the actual status at the site to ensure that accuracy of the distribution system is maintained.
- Assist in the evaluation of the SCADA system performance to make recommendations for improvements to the user interface and system performance and to help resolve operational problems.
- Read and interpret plans, schematics, and documentation related to maintaining SCADA and make necessary updates to ensure GIS system integrity.
- Create reports and update maintenance records for all work performed on the SCADA system.
- Coordinate with the Irrigation Operations Department in support of SCADA as required.
- Generate, edit, update, and verify SCADA sites in an AutoCAD database, and locate sites with GPS system.
- Update, investigate, test, resolve, calibrate, and troubleshoot SCADA applications at SCADA sites.
- Field inspection of SCADA related to construction activity.
- Prepare and conduct training sessions as applicable for new and existing staff as it pertains to the MID Radio SCADA System.
- Reproduce various engineering records and reports.
- Perform other duties as requested, directed or assigned

QUALIFICATIONS:

Any combination of experience and education that would prepare the candidate for the duties and responsibilities of the position is acceptable.

Education:

- College level course work in engineering to include technical related courses, or other equivalent professional experience related to SCADA or engineering work.

Experience:

- Two (2) years carrying out comparable duties as those described under this job description.

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Ability to:

- Communicate clearly and concisely, orally and in writing.
- Work cooperatively with fellow employees and the public as required.
- Attend District directed course work related to daily activities.
- Update existing drawings and plot as required.
- Run Microsoft Windows[®] programs on personal computers including, but not limited to, Works, Word, Excel, Access, etc.
- Review and prepare, either "manually", using AutoCAD or other electronic programs, simple engineering plans, drawings, maps, site plans, and sketches.
- Exercise proper safety practices regarding data radios, batteries, electrical circuits, and other equipment used in SCADA.
- Read and interpret maps and public works engineering / construction drawings.
- Work with GIS maps and ensure SCADA sites are properly marked and maintained.
- Review and prepare, either "manually" or with AutoCAD, engineering plans, drawings, site plans, maps, electrical diagrams / schematics, and sketches

Knowledge of:

- Alternating Current (AC) and Direct Current (DC) power.
- Power Inverters.
- Battery Safety.
- Basic Electronic Theory and Electrical Circuits.
- 4-20mA Input/output (I/O) devices and components.
- Level transducers, pressure transducers, and ultrasonic transducers.
- Flow measurement devices.
- Data radios as utilized by SCADA.
- Basic hydraulics.
- Microsoft operating systems utilized on desktops and servers.
- Software to include: Schneider Electric ClearSCADA HMI, TelePACE Studio Ladder Logic Editor, Maple Systems OITware 200 Operator Interface Terminal (OIT) Management Software, and Specter TeleDAC WIN911 Telephonic Data Acquisition and Control Software as it relates to the development and maintenance of SCADA.
- Phonetics Sensaphone 2000 monitoring, alarm and data logging system in support of the City /County of Merced flood monitoring information.
- AutoCAD release 2004 or above as it relates to mapping and drawings in support of SCADA.
- Algebra and trigonometry.

Necessary Special Requirements;

- A valid California Class C Driver License and the ability to maintain insurability under the District's vehicle insurance program.
- Abide by all District policies, guidelines and rules.

ENVIRONMENTAL FACTORS:

- Exposure to the sun: 50% more or less work time spent outside a building and exposed to the sun.
- Irregular or extended work hours: Occasionally required to change working hours or work overtime.
- Work performed both outdoors and in an office environment.

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The mental and 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:

ESSENTIAL MENTAL ABILITIES:

- Exercise independent judgment.
- Self directing and organized.
- Reason objectively.
- Assess, project and plan work activities on a daily and weekly basis.
- Interpret state/ federal/agency regulations.
- Document concisely, accurately and timely.
- Handle a variety of duties which may be interrupted or changed by immediate circumstances.

TYPICAL PHYSICAL DEMANDS:

- Communicate orally and in writing with District management, co-workers, outside auditors, customers, and the public in face-to-face and one-on-one settings.
- Must travel frequently by motor vehicle to perform field work at SCADA sites. Transport, set-up and removal of promotional equipment and materials at various public functions.
- Use of office equipment such as computer, copiers, scanners, and fax machines.
- Capable of negotiating stairways and uneven ground from time to time.

Sitting:	Remains in a seated position for up to eight (8) hours per day
Hands/Arms:	Operates computer for up to eight (8) hours per day
Lifting:	Raises and lowers boxes and supplies up to twenty-five (25) pounds.
Stooping:	Bends body downward and forward by bending at the knees or waist
Talking:	Expresses ideas and shares information by means of spoken work in person and by telephone.
Hearing:	Hears well enough to receive communications in person and by telephone.
Vision:	Reads written and video messages for up to eight (8) hours per day. Operate vehicles and office equipment.

SUPERVISION:

The position receives general supervision from the SCADA Specialist and Manager of Water Operations.

I have reviewed this Job Description with my Supervisor and agree with its contents.

Employee Signature/Date

Supervisor Signature/Date

The specific statements shown in each section of this job description are not intended to be all-inclusive. They represent typical elements and criteria necessary to successfully perform the job.