

# PADRE DAM MUNICIPAL WATER DISTRICT CLASS SPECIFICATION

## CLASS TITLE: SCADA Technician

<b>DEPARTMENT:</b> Operations & Water Quality	<b>ACCOUNTABLE TO:</b> Operations Manager	<b>FLSA STATUS:</b> Non-Exempt
<b>SALARY RANGE:</b>	28, 30	
<p><b>CLASS SUMMARY:</b> Incumbent is responsible for performing skilled installations, maintenance, repairs and troubleshooting on Padre Dam’s Supervisory Control and Data Acquisition (SCADA) systems; Programmable Logic Controllers (PLC); Spread Spectrum (SS) and Multiple Address System (MAS) radio communication systems, and Remote Telemetry Units (RTU’s) commonly used in water distribution systems and wastewater treatment plants. Duties include: Installing and maintaining Padre Dam’s Human Machine Interface (HMI) software, including software upgrades; programming SCADA systems; programming and configuring PLCs and radio communication systems; installing, maintaining, troubleshooting and repairing Padre Dam’s hardware, software and computer operating systems (i.e. Windows 2000, XP, Vista or Unix, Linux, Etc.) as it relates to SCADA and related systems; documenting and organizing software processes and procedures; responding to after-hour system emergencies; and other duties as may be assigned.</p>		
<p><b>DISTINGUISHING CHARACTERISTICS:</b> This is a stand-alone position and is differentiated from the Electrician/Instrumentation &amp; Control Technician and Information Systems Technical Specialist in that it works solely with the SCADA systems.</p>		

<b>DUTY NO.</b>	<b>ESSENTIAL DUTIES:</b> (These duties are a representative sample; position assignments may vary.)
1.	Installs, troubleshoots, maintains and repairs SCADA systems, PLCs, radio equipment and related systems equipment which includes: maintaining and repairing the SCADA systems; installing, repairing and maintaining radio telemetry systems and data circuits; performing operational tests on electrical/electronic and computer equipment; performing minor electrical work; and, monitoring, repairing and maintaining computer controlled systems.
2.	Programs SCADA systems; modifies programs to fit the needs of Padre Dam; programs and/or modifies SCADA in order to provide for continued operation and reliability. Performs needed organization, maintenance and back-up of data to ensure proper documentation and reliability of SCADA systems.
3.	Uses a working knowledge of modern computer operating systems (i.e. Windows 2000, XP, Vista or Unix, Linux, Etc) for integrating hardware/software with Padre Dam’s SCADA and communication systems.
4.	Responds to both on-duty and after-hour systems emergencies; coordinates and completes the necessary repairs.
5.	Researches and evaluates new operational methods, techniques and equipment and recommends their application. Provides advanced technical assistance and advice to other Padre Dam sections and departments.
6.	Oversees projects related to SCADA systems by planning, organizing, assigning and monitoring work, evaluating systems and operational performance, writing reports, ensuring training of Padre Dam personnel and end users and creating schedules for repairs, maintenance and replacements.

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DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)
7.	Sets up servers, workstations, routers, firewalls, wireless internet connections and security; maintains Terminal server, Application server, and SQL server.
8.	Designs/modifies and assists in the planning of SCADA and related systems.
9.	Coordinates and inspects work done by contractors ensuring work meets NEC code, Padre Dam and industry/trade specifications.
10.	Maintains library of manuals, license agreements, license upgrades and product warranty information.
11.	Performs other duties of a similar nature or level.

**Knowledge** (position requirements at entry):

- Supervisory Control and Data Acquisition (SCADA) system;
- Electrical principles and practices;
- Electronic equipment such as Programmable Logic Controllers and modems
- Working knowledge of at least one modern computer operating system (i.e. Windows 2000, XP, Vista or Unix, Linux, Etc)
- Ladder logic and PLC programming
- Instrumentation & Control Processes
- Multiple Address System (MAS) radio systems
- Spread Spectrum (SS) radio systems
- Process control systems
- Electronic measuring equipment used in wastewater treatment plants and water distribution systems

**Skills** (position requirements at entry):

- Installing, repairing and troubleshooting problems with electronic equipment;
- Programming Programmable Logic Controllers (PLC's);
- Calibrating electronic equipment;
- Reading maps, blueprints, ladder, and wiring diagrams;
- Using electrical and electronic equipment such as volt meters, tone testing equipment and hand and power tools;
- Understand water and wastewater systems as they apply to the design and implementation of SCADA and related systems
- Using computers and related software applications;
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, etc. sufficient to exchange or convey information and to receive work direction.

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### Training and Experience (position requirements at entry):

- Associate's degree from an accredited college in water technology, electronics technology, computer sciences, information technology or related field, and three years journey level experience in the above duties OR;
- High School Diploma or General Equivalency Diploma (G.E.D.) and five years of journey-level experience in the above duties OR;
- An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above.

### Licensing Requirements (position requirements at entry):

- Valid California Driver's License;
- California Department of Public Health, Water Distribution Certification Grade I, (within two test cycles from date of hire);
- Certified Control Systems Technician from ISA highly desired.

### Physical Requirements:

Positions in this class typically require:

Positions in this class typically require: climbing, balancing, stooping, kneeling, crouching, reaching, standing, walking, lifting, fingering, grasping, feeling, talking, hearing, seeing, sitting and repetitive motions.

Incumbents may be subjected to moving mechanical parts, electrical currents, vibrations, fumes, odors, dusts, oils, and work space restrictions.

Heavy Work: Exerting up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently, and/or up to 20 pounds of forces constantly to move objects.

### Classification History:

Date: 5/08; 8/09