

## **SOUTH ORANGE COUNTY WASTEWATER AUTHORITY**

### **CLASSIFICATION STATEMENT**

**TITLE:** SCADA Technician

**DIVISION:** Support Services

**SALARY RANGE:** Range 45

**DEFINITION:**

Under the general direction of the Support Services Manager, participates in the work of employees engaged in the design, development, installation, operation and maintenance of the District's Supervisory Control and Data Acquisition (SCADA) system including Programmable Logic Controllers (PLCs), Remote Terminal Units (RTUs), radio communication systems, and other telemetry and control systems. Incumbents may perform or oversee skilled electronic work in the installation, maintenance and repair of water and wastewater equipment control and monitoring systems.

**EXAMPLES OF ESSENTIAL DUTIES AND RESPONSIBILITIES:** *The following are not to be construed as exclusive or all-inclusive. Other duties may be required and assigned.*

1. Designs, programs, installs and maintains water system and plant automation systems, PLC, SCADA, and plant information local area and wide area networks; uses network commands and software analysis tools to troubleshoot and diagnose issues; coordinates and participates in maintaining and enhancing process automation and network functionality; responds to work orders and immediate call outs.
2. Designs, develops and programs new and enhanced automation controls; performs software and firmware upgrades; performs security upgrades; configures and enhances the performance of operating systems; adds additional sites and equipment to system; troubleshoots, debugs and performs testing and system startups.
3. Provides ongoing support for SCADA operations and system upgrades; analyzes process requirements and end-user needs; identifies and analyzes complex systems development, modification and enhancement issues; develops and refines system specifications; evaluates, modifies and tests factory-provided software, hardware and configurations for conformity with requirements, specifications, standards for compatibility and integration with current system; makes recommendations for the resolution of problems identified.
4. Trains end users to make effective use of process automation systems; establishes and implements safety procedures and training related to SCADA and control systems.
5. Requisitions, stocks and maintains inventory of PLC hardware and telemetry equipment repair parts.
6. PLC control panel fabrication and wiring.
7. Maintains records in the form of plans and specifications for computers and electronic communications and instrumentation equipment and devices; develops and maintains accurate and up-to-date documentation, monitoring reports, logs and files
8. Performs related duties and responsibilities as required.

**Knowledge of:**

1. Advanced principles, methods and techniques in the design and operation of automated process control systems and their components.
2. Relevant programming languages, including those applicable to specialized field hardware and devices such as PLC ladder logic and programming languages.
3. Programming theory and operating system capabilities and constraints applicable to the district's process control environment.
4. Principles and methods of systems/network administration and maintenance, including configuration, performance tuning and diagnostic tools.
5. Systems design principles and applications development methodologies and tools.
6. General asset management principles and best practices, including equipment and systems maintenance methodologies.
7. Safety policies and safe work practices applicable to the work.
8. Records management, recordkeeping, filing and basic purchasing practices and procedures.
9. Uses and operations of computers, standard business software and specialized database and spreadsheet applications.

**Ability to:**

1. Analyze and define process and user requirements and recommend efficient, cost-effective hardware, software, network/communication and technical applications solutions.
2. Configure, maintain and manage the operations of computer platforms and/or networks to achieve optimal process performance and user support.
3. Ensure systems and network security through the use of advanced security software and protocols.
4. Design, develop and implement control programs and applications for PLCs, SCADA and DCS.
5. Apply understanding of theories and concepts of process automation and control wastewater treatment processes systems.
6. Review and evaluate design plans and specifications for a wide variety of electrical, telemetry, control and instrumentation projects.
7. Operate a computer, standard business software and a variety of computer software programs and databases related to area of assignment.
8. Prepare clear and accurate reports, documents, data entries and files.
9. Establish and maintain effective working relationships with all those encountered in the course of work.
10. Build and wire electrical control panels.
11. Properly label all components within the control panel.
12. Performing point-to-point wiring, having knowledge of standard wiring procedures which include proper wire routing, stripping, crimping, etc.
13. Must be able to utilize and interpret wiring diagrams and recognize component
14. Basic knowledge of electrical theory and guided compliance with NEC, UL and NFPA standards

**OTHER SPECIAL REQUIREMENTS:**

- High school diploma or equivalent.
- Graduation from a college or university with an associate of arts degree. A baccalaureate degree in business administration or equivalent is desirable.
- Electrical/Instrumentation Technologist Certification desired
- Must possess a valid California, Class C driver's license in good standing.

**PHYSICAL AND MENTAL ABILITIES REQUIRED TO PERFORM ESSENTIAL FUNCTIONS:****Language Ability and Interpersonal Communication:**

- Ability to analyze and categorize data and information in order to determine the relationship of data with reference to established criteria/standards. Ability to compare, count, differentiate, measure assemble, copy, and record and transcribe data and information. Ability to classify, compute and tabulate data.
- Ability to explain, demonstrate and clarify to others within well-established policies, procedures and standards. Ability to follow specific instructions and respond to simple requests from others.
- Ability to communicate effectively orally and in writing with Agency personnel.

**Mathematical Ability:**

- Ability to calculate percentages, fractions, decimals and ratios.

**Judgment and Situational Reasoning Ability:**

- Ability to use functional reasoning and apply rational judgment in performing diversified work activities.
- Ability to exercise the judgment, decisiveness and creativity required in situations involving the evaluation of information against measurable criteria.

**Physical Requirements:**

- Must be able to pass Agency's pre-employment physical examination.
- Ability to coordinate eyes, hands, feet and limbs in performing movements requiring skill and training, such as assembling equipment.
- Ability to exert effort in strenuous physically demanding work, typically involving some combination of climbing and balancing, stooping, kneeling, crouching, crawling, lifting, carrying, pushing and pulling. Ability to lift and move 65 pounds or more.
- Ability to recognize and identify degrees of similarities or differences between characteristics of shapes, colors, sounds, odors and textures associated with job-related objects, materials and tasks.
- Ability to withstand exposure to inclement weather conditions, working in wet and/or odorous areas, working in tanks and/or confined spaces.
- Ability to be subject to 24-hour recall, variable working hours, overtime, weekends and holidays. May be required to perform stand-by duties and respond to plant emergencies

**Environmental Adaptability:**

Some tasks may risk exposure to temperature variations, sewage, toxic agents/chemicals, noise, machinery, vibrations, electrical currents, wetness and dust.

SOCWA is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the Agency will provide reasonable accommodations to qualified individuals with disabilities and encourage both prospective and current employees to discuss potential accommodations with the employer.

Interviews to start July 7, 2025