

SILICON VALLEY CLEAN WATER
Job Description
August 2025

JOB TITLE: Senior Plant Mechanic – Control Systems Technician

FLSA: Non-Exempt

CLASSIFICATION: General Represented

Every employee shall serve at the will and pleasure of Silicon Valley Clean Water ("SVCW"). No employee has, or may acquire, a property interest, nor any other kind of interest in, or right to, continuing employment with SVCW. The Manager, upon request of an employee who has been discharged, will review all the circumstances of such discharge.

SUMMARY

Under general supervision, performs a variety of skilled electrical, electronic, pneumatic and mechanical instrumentation and controls; installation, fabrication, field troubleshooting, and repair of computerized automation control work at a modern wastewater treatment facilities and remote pumping stations, and assists in the development of maintenance programs for the preventive maintenance and improvements of all Instrumentation and control systems.

The Senior Control Systems Technician is a highly skilled technical expert responsible for overseeing, maintaining, and advancing the automation, instrumentation, and control systems across all facilities. This role involves complex field troubleshooting, designing and implementing PLC and SCADA system modifications, leading multi-disciplinary projects, and mentoring plant mechanic-controls system technicians. The incumbent ensures optimal system performance, supports regulatory compliance, and integrates new technologies to enhance operations.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the following:

Disclaimer – This list is meant to be representative, not exhaustive. Some incumbents may not perform all the duties listed while in other cases related duties may also be assigned. Reasonable accommodation may be made to enable individuals with disabilities to perform essential functions.

- Lead the design, configuration, programming, advanced field troubleshooting, and maintenance of PLCs (e.g., Allen-Bradley, Siemens), SCADA systems (e.g., FactoryTalk View SE/ME), HMIs, and related control system infrastructure.
- Develop, integrate, and implement control logic strategies, automation upgrades, modifications to existing PLC/SCADA, and enhancements to improve reliability and efficiency.
- Serve as the technical lead for control system installations, capital improvement project upgrades.
- Oversee integration of new applications and systems; ensure changes are tested, documented, and commissioned effectively.
- Collaborate with engineering, operations, maintenance, and contractors to plan, schedule, and execute control system work.
- Integrate, review, and develop control system documentation, including P&IDs, loop diagrams, panel schematics, and control narratives to ISA standards.
- Maintain preventive and predictive maintenance schedules on the Computerized Maintenance Management System (CMMS) for PLC control systems.
- Update technical documentation, maintenance records, and system configurations on a CMMS.
- Perform as lead person on electrical/controls projects.

- Prepare written estimates of labor, materials, and supplies required for the performance of specific assignments.
- Assure compliance with National Electrical Codes and OSHA regulations
- Perform a variety of other duties as assigned.

MINIMUM QUALIFICATIONS

The requirements listed below are representative of the knowledge, skills and abilities required to satisfactorily perform the essential duties and responsibilities.

Knowledge of:

- Understand Silicon Valley Clean Water policies and procedures.
- Knowledge of Standard practices, methods, tools, and materials of the electrical, instrumentation, and mechanical trades.
- Advanced proficiency in Allen-Bradley Studio 5000, RS Logix, and FactoryTalk View platforms.
- SCADA architecture, remote telemetry systems, and communications protocols.
- Diagnostic tools, calibration equipment, and process instrumentation.
- Software applications, including Microsoft Office, SharePoint, Word, Excel, CMMS, and industry-standard configuration tools.

Ability to:

- Lead complex control system troubleshooting, upgrades, and integrations with minimal supervision.
- Interpret and develop electrical schematics, PLC programs, and technical documentation.
- Communicate clearly and professionally both verbally and in writing.
- Operate vehicles and equipment, including forklifts, safely and in compliance with regulations.
- Respond promptly to after-hours emergencies and participate in on-call rotation, if required.
- Effectively organize and prioritize assigned work.
- Work effectively with general supervision.
- Work with accuracy and attention to detail.
- Troubleshoot and performed repairs to electro-mechanical, hydraulic, pneumatic, and mechanical systems.

Interpersonal Effectiveness

Effectively work in a collaborative organization focused on continuous improvement; establish and maintain a positive customer service attitude and effective working relationships with internal and external customers; demonstration of strong two-way communication skills, including the ability to listen, explain and facilitate; ability to ask for input; offer help without being asked; accept suggestions; work with others to solve problems; and provide recognition and encouragement; ability to address co-workers needs; identifying issues and concerns, exploring solutions and implementing improvements.

EDUCATION and/or EXPERIENCE

Any combination of education and experience that demonstrates possession of the requisite knowledge, skills and abilities. A typical way to obtain these would be:

- High School Diploma or an equivalent certificate or diploma recognized by the State of California. Associate of Arts or Associate of Science degree with major work in instrumentation, computers, and electronics.

- Minimum of four (4) years' experience in skilled maintenance work involving electrical, instrumentation, mechanical repair, and installation. Repair experience with industrial process type equipment and electrical repairs.

CERTIFICATION and LICENSES

- Ability to obtain a California Water Environment Association (CWEA) Grade II Electrical/Instrumentation Technologist Certification within eighteen (18) months from date of hire.
- Must possess an ISA Certification as a Controls System Technician Level II or have experience and/or education equivalent to a journey level electrician/controls Technician, acceptable to SVCW.
- Valid California Class C Driver's License and an acceptable driving record as defined by SVCW's Driving Eligibility Standards.
- Obtain certification in CPR and basic First Aid.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

While performing the duties of this job, the employee is regularly required to walk, stand, bend, stoop, kneel, and climb. The employee frequently is required to use hands and fingers to handle or feel; reach with hands and arms; and talk and hear. The employee must regularly lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 pounds.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee regularly works in indoor and outdoor conditions. The employee works at heights, uses power tools, and works with and around machinery having moving parts. The employee is exposed to outside weather conditions, to gases, fumes and odors, and to untreated and partially treated wastewater. The employee operates light utility vehicles, including a variety of powered vehicles, forklifts and special purpose equipment. The noise level in the work environment may be moderate to loud. May be assigned, or called in, to work in the evenings, nights, and days and/or on weekends, including holidays. Safety is a priority when performing all SVCW work tasks.

Disclaimer – Class descriptions are written as a representative list of the ADA essential duties performed by the entire job classification. They cannot include, and not intended to include, every possible activity and task performed by every specific employee