

SILICON VALLEY CLEAN WATER
Job Description
September 2025

JOB TITLE: 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, troubleshooting and repair of computerized automation control work at 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.

This is a hands-on, field-based position. Fieldwork is essential and will be the primary focus, with the technician expected to perform troubleshooting and maintenance directly on process equipment, panels, instruments, and network components throughout the plant and off-site facilities. The role requires in-depth work with SCADA systems, PLCs, PanelView HMIs, and network communications to support safe, efficient, and compliant plant 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.

- From work orders, drawings, specifications, and verbal instruction, perform a variety of complex tasks, including troubleshooting, diagnosis of control logic system issues, and providing solutions or corrective action to resolve the issue.
- Maintain, troubleshoot, and repair PLCs (e.g., Allen-Bradley, Siemens), PanelView HMIs, SCADA components, and related automation/control equipment. Perform field-based diagnostics on control panels, instrumentation, and automated systems.
- Configure and program PLCs and HMIs, including ladder logic changes and SCADA interface updates to support process improvements. Validate telemetry I/O points, check control loops, and ensure proper automation functionality.
- Contribute as an SVCW team member in all tasks related to preventive maintenance, repairs, corrective maintenance, and the installation of process systems, structures, and equipment.
- Integrate new applications, support system upgrades, modify computer programs, and equipment to optimize plant operations.
- Provide technical support, inspection, and coordination over control system modifications made by contractors or in-house staff. Maintain documentation and plans of modifications.
- Work with the operations/engineering staff, assisting in process changes that require SCADA or ladder logic changes in the PLCs.
- Assist in the planning, coordination, and scheduling of work.

- Assist instrumentation technicians, mechanics, and electrical staff in performing their work tasks.
- Maintain various wastewater plant systems and equipment, such as pump systems, support SCADA systems, PLC's, network communications, and data recording systems.
- Use electronic monitoring and diagnostic equipment as well as other hand and power tools.
- Prepare written estimates of labor, materials, and supplies required for the performance of specific assignments.
- Assure compliance with safety regulations and respond to emergencies.
- Keep records for work and safety-related data; prepare verbal and written reports.
- Perform component-level repairs on PLC, PLC power supply, networking cables (CAT5/6), fiber-optic, and communication to and from SCADA systems.
- 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:

- Allen-Bradley Studio 5000, RS Logix, and FactoryTalk View ME/SE platforms.
- Process automation systems, particularly in water or wastewater treatment environments.
- ISA standards and control system documentation practices.
- National Electrical Code (NEC), OSHA regulations, and relevant industry safety standards.
- Standard practices, methods, tools, and materials of electrical, instrumentation, and mechanical trades.
- Electrical and electronics trades.
- Use of bench, hand, and power tools, machines, and equipment of the electrical/electronic control trades.
- Office equipment such as a computer, printer, and photocopier.
- Word processing, spreadsheet, and other related software applications.

Ability to:

- Understand Silicon Valley Clean Water policies and procedures.
- Follow all applicable safety rules.
- Perform routine electrical/electronic control/and maintenance work.
- Safely perform routine mechanical & maintenance work requiring the frequent use of hand and power tools.
- Perform heavy manual labor, work in awkward positions.
- Effectively organize and prioritize assigned work.
- Take directions and complete work as assigned.
- Communicate clearly and professionally both verbally and in writing.
- Work effectively with general supervision. Perform arithmetic calculations correctly.
- Work with accuracy and attention to detail.
- Interact positively and cooperate with co-workers and supervisors, work as a team member, and function under demanding time pressure.
- Drive and operate vehicles, including forklifts, safely at all times.
- Improve mechanical maintenance skills through training and hands-on experience.
- Troubleshoot and perform repairs to electro-mechanical, hydraulic, pneumatic, and mechanical systems.
- Effectively organize and prioritize assigned work.

- Specific vision abilities required by this job include close vision, the ability to adjust focus, and the ability to distinguish colors.

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 two (2) years of experience in control logic, instrumentation maintenance work involving electrical, instrumentation, and 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 1 Electrical/Instrumentation Technologist Certification within eighteen (18) months from date of hire.
- Must possess an ISA Certification as a Controls System Technician Level I 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 is not intended to include, every possible activity and task performed by every specific employee