



CITY OF SANTA CLARA
invites applications for the position of:

Senior Instrument and Control Technician

SALARY: \$76.56 - \$98.01 Hourly
\$13,269.54 - \$16,989.19 Monthly
\$159,234.48 - \$203,870.28 Annually

OPENING DATE: 09/01/22

CLOSING DATE: Continuous

EXAM WEIGHT: 100% Oral, Qualifying Supplemental

TENTATIVE EXAM INFORMATION: (Open/Promotional Recruitment)

DESCRIPTION:

The Department:

SVP currently provides over 600 Megawatts of power to residential and business customers within Santa Clara, of which 40 percent of comes from carbon-free renewable resources. In addition to using green energy from large-scale wind, solar, geothermal and hydroelectric projects outside of the area, SVP employs innovative ways to locally produce electricity by operating Thermal Generation facilities utilizing Simple Cycle, Combined Cycle, and Cogeneration technologies. It is the mission of Silicon Valley Power to be a progressive, service-oriented utility, offering reliable, competitively priced services for the benefit of Santa Clara and its customers. Being competitive in the marketplace with a continuous focus on customer service, SVP can provide economic value to the City of Santa Clara and its customers while maintaining low residential rates and offering competitive rates for all customers.

The Position:

The Senior Instrument and Control Technician is a senior level technical classification. This classification performs maintenance and repair on all instruments, control systems, and electrical equipment in the City's power generation facilities. The incumbent inspects, repairs, tests, adjusts, installs, and maintains all power plant electrical and instrumentation systems and equipment along with primary responsibility for Plant Controls and Distributed Controls Systems (DCS).

This recruitment may be used to fill multiple positions in this, or other divisions or departments. If you are interested in employment in this classification, you should apply to ensure you are considered for additional opportunities that may utilize the applicants from this recruitment.

TYPICAL DUTIES:

Under general supervision:

- Operates within environmental, health, and safety programs and permit requirements
- Monitors and responds to alarms and plant equipment
- Performs start-up and shut-down of equipment
- Responds to emergency situations such as natural disasters, fires, pipeline leaks, and abnormal operations
- Performs routine inspection of equipment

- Performs operations and maintenance troubleshooting
- Responsible for maintenance of 13.8kV electrical switchyard equipment including, circuit breakers, transformers, load tap changers, metering equipment, and other associated equipment
- Responsible for maintenance of 4kV electrical switching equipment, including circuit breakers, transformers, load tap changers, metering equipment, and other associated equipment
- Responsible for maintenance of 480V electrical switching equipment, including circuit breakers, transformers, load tap changers, metering equipment, and other associated equipment
- Responsible for maintenance of 120/220V critical electrical supply equipment, including circuit breakers, transformers, backup/emergency battery banks, battery chargers, metering equipment, and other associated equipment
- Responsible for maintenance of 115/208VAC and 125VDC instrument and control systems equipment, including circuit breakers, transformers, backup/emergency battery banks, battery chargers, metering equipment, and other associated equipment
- Programs, configures, modifies and maintains the distributed control system hardware and software. Develops, troubleshoots and/or modifies control system logic, operator interface consoles, plant logs, reports, graphics, calculations, input and output devices. Maintains accurate records of modifications, and configuration backups
- Maintains and repairs emissions monitoring system analyzers, sampling equipment and computers
- Maintains, troubleshoots and repairs turbine generator governor systems, generator excitation systems, voltage regulators, vibration monitors, field instruments and protective controls
- Troubleshoots and repairs various types of programmable logic controllers, transmitters, monitors, analyzers and field instruments. Maintains archive files of all data collected by these systems
- Installs, tests, calibrates and repairs field instrumentation, including: temperature, pressure, level, flow, vibration, and water quality analyzers, transducers, sensors, switches, transmitters plus associated components and subsystems
- Performs skilled diagnostics using a wide range of specialized test and calibration equipment
- Reads and interprets various types of technical drawings, logic drawings, and schematics
- Maintains calibration and test equipment in proper working order
- Enters and completes work orders, records device condition, pulls required parts from inventory, records parts used and work performed for the preventative maintenance program
- May be required to respond to alarms and plant equipment problems when informed of abnormal conditions by the Control Room Operator or Supervisor
- May be required to inspect, maintain and repair network communication systems, supervisory control, remote signal and remote control equipment, instrumentation and control systems, and flow, pressure and level sensors
- May be required to inspect, maintain and repair radio, fire alarm and security systems, video equipment, digital electronic equipment, telemetering, communication, protective relays, meters and other electronic and auxiliary apparatus
- May be required to develop instrument calibration and maintenance procedures and technical files
- Responds to hazards identified, including repairs on equipment containing chemicals, containment of chemical leaks, responds to electrical interruptions, and follows lock out/tag out procedures
- Coordinates with other City departments and outside agencies
- Provides assistance in operation and maintenance of the City's "In City" Generation facilities, including but not limited to performing Plant Operations duties (to the extent qualified- Outside Operator, Control Operator, etc.) when required
- May be required to assist with the City's remote properties and City owned hydro generation facilities, provides technical support in the design fabrication, testing, and evaluation of system upgrades.
- May be assigned to plan jobs, including scope identification, schedule requirements, cost estimates, material procurement, vendor selection, work execution, job closeout including final reports and documentation

- Assists in the training and development of new and existing employees assigned to the division
- Prepares bid specifications, develops evaluation criteria, and participates in the selection process for supplier/contractors on large jobs
- Performs other work as assigned

MINIMUM QUALIFICATIONS:

EDUCATION AND EXPERIENCE

- One of the following education requirements:
 - Completion of an Associate Degree program in Electronics, Instrumentation or related field, or
 - Electronic or Instrumentation training at a recognized trade or technical school, or
 - Military training equivalent to an AA/AS degree in Electronics, Instrumentation, or related field
- Five (5) years of experience maintaining high and low voltage equipment, power generation equipment or industrial manufacturing facilities and the maintenance and repair of industrial instrumentation and control equipment
- Two (2) years of the qualifying experience must include supervision of employees and/or contractors or the equivalent in the construction, maintenance, and repair of generation plant transformers, generators, switchgear, instrumentation, control systems, protective systems, and trouble shooting of generation plant electric systems and sub-systems

LICENSE

Possession of a valid California Class C driver's license is required at time of appointment and for duration of employment.

CERTIFICATES

Possession of the following certificates is required within one year of appointment and for the duration of the appointment:

- Department of Transportation (DOT) Qualified Operator for Natural Gas Pipeline
- Department of Transportation (DOT) Qualified Operator for Natural Gas Compressor Station
- Department of Transportation (DOT) Drug Testing Program for Natural Gas Pipeline and Compression Station Operator
- Qualified electrical worker, who is qualified to do switching, is required within two years of appointment and for the duration of the appointment
- Any other licenses(s) and or certification(s) that may be required by future regulation by Federal, State and/or industry requirements

PHYSICAL AND OTHER REQUIREMENTS

- Incumbents must have the ability to work, as assigned, to schedules that may include Saturdays, Sundays, holidays, and non-traditional work hours; and a willingness to work overtime, emergency and/or pre-arranged work as required.
- Incumbents are required to pass an initial and periodic comprehensive background checks, which may include fingerprinting, to meet Federal, State and/or industry security requirements
- Some out of town and overnight travel may be required
- Incumbents shall be qualified to wear a respirator
- Employees appointed to this position must possess normal color vision at time of appointment
- Must be able to lift twenty (20) pounds in awkward positions and fifty (50) pounds from the floor to the waist
- Must be able to bend, stoop, crawl, lift, reach, walk up and down stairs, and climb ladders at elevations of eighty (80) feet or more as necessary to perform assigned duties
- Must be able to wear respirator and any other appropriate safety equipment
- Must be able to perform all of the essential functions of the job assignment

Meeting the minimum qualifications does not guarantee admittance into the examination process. Only the most qualified candidates who demonstrate the best combination of qualifications in relation to the requirements and duties of the position will be invited to test. Candidates must attain a passing score on each phase of the examination process to qualify for the Eligible List. A department interview will be required prior to appointment.

Federal law requires all employees to provide verification of their eligibility to work in this country. Please be informed that the City of Santa Clara will not sponsor, represent, or sign documents related to visa applications/transfers for H1B or any other type of visa which requires an employer application.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Gas turbines, steam turbines, reduction gears, electric generators, boilers and boiler operation, instrumentation, and maintenance
- Computer technology programs or their equivalents: For example, assists/work management (MVP), clearance (Red Tag), Ovation Control Systems, GE MKVI Control Systems, Wonder WARE Control Systems, Allen Bradley PLCs, other automation related programs and equipment, CAISO Outage Management System (OMS), Plant Information System (PI), Windows, Microsoft Office (Excel, Word, and Outlook)
- Normal, planned, and emergency operations
- Fundamentals of electricity and electronics including their application to the operation of high voltage substations, motor control, circuits, traffic signal devices and street lighting
- National Electrical Code, California Electrical Safety Orders, National Fire Protection Association (NFPA), North American Electric Reliability Corporation (NERC) and California Occupational Safety and Health Administration (CAL OSHA).
- Techniques, tools and materials of the electrical utility trade
- Applicable safety preparations and first aid practices
- Environmental and safety practices, procedures and standards

Ability to:

- Comply with applicable regulations/standards/policies governed by Occupational Safety and Health Administration, California Occupational Safety and Health Administration, Environmental Protection Agency, National Fire Protection Association, Department Of Transportation, Bay Area Air Quality Management District, California Energy Commission, Federal Energy Regulatory Commission, and any other Federal, State, and local regulatory agencies
- Direct corrective action, including stopping an operation, when necessary
- Install, test, repair, maintain, and operate power plant equipment used in the operation and maintenance of generation plants working from drawings and manuals
- Organize and supervise contractors and employees in conducting scheduled and emergency shutdown work
- Use techniques, tools, and materials of the electric utility trade
- Prepare and schedule power plant maintenance work
- Keep time and materials records and preventative maintenance history records
- Communicate clearly and effectively, both orally and in writing
- Issue, follow and understand written procedures and instructions
- Understand and implement oral procedures and instructions
- Establish and maintain tactful, courteous, and effective working relationships with those contacted in the course of work, including coworkers and the general public
- Work in a team-based environment and achieve common goals
- Safely use personal protective equipment in order to handle and inspect equipment containing hazardous energy, hazardous chemicals, hazardous wastes
- Evaluate situations, identify problems, and exercise sound independent judgment within established guidelines
- Work under pressure with accuracy in a complex work environment

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Additional Information:

You must answer all job-specific questions in order to be considered for this vacancy or your application will be deemed incomplete and withheld from further consideration. Applications must be filled out completely (i.e. do not write "see resume or personnel file.") To receive consideration for the screening process, candidates must submit a **1) Cover Letter and, 2) Resume. [add what will be accepted for the application.]** Incomplete applications will not be accepted. Application packets may be submitted online through the "Apply Now" feature on the job announcement at www.santaclaraca.gov. Applications must be submitted by the filing deadline of **Date at 4:00 PM. [Add if continuous or open until filled posting, if not applicable delete text: This position is continuous or open until filled: Applications will be reviewed on a bi-weekly basis [indicate frequency] for consideration to the position. If you are interested in applying you are encouraged to apply as soon as possible, before the position is closed.]**

The City of Santa Clara is an equal opportunity employer. Applicants for all job openings will be considered without regard to age, race, color, religion, sex, national origin, sexual orientation, disability, veteran status or any other consideration made unlawful under any federal, state or local laws. The City of Santa Clara is committed to offering reasonable accommodations to job applicants with disabilities. If you need assistance or an accommodation due to a disability, please contact us at (408) 615-2080 or HumanResources@santaclaraca.gov.

APPLICATIONS MAY BE FILED ONLINE AT:
<http://www.santaclaraca.gov>

Position #52-22-753
SENIOR INSTRUMENT AND CONTROL TECHNICIAN
MP

1500 Warburton Ave.
Santa Clara, CA 95050
408-615-2080
Fax: 408-985-0667

humanresources@santaclaraca.gov

Equal Opportunity Employer

Senior Instrument and Control Technician Supplemental Questionnaire

- * 1. Select the option that describes how you meet the minimum qualifications.
 - I possess an Associate Degree in Electronics, Instrumentation or related field.
 - I have Electronic or Instrumentation training at a recognized trade or technical school.
 - I have Military training equivalent to an AA/As degree in Electronics, Instrumentation, or related field.
 - I do not meet the minimum qualifications.
- * 2. Describe your experience maintaining high and low voltage equipment, power generation or industrial manufacturing facilities and the maintenance and repair of industrial instrumentation and control equipment.

- 3. Please indicate the name of the firm that referred you, including the recruiter name.

* Required Question