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## **Control System Engineer – Hayward, California**

Date: August 22, 2023  
Location: Hayward, CA, US  
Company: HSQ Technology  
Salary Range: DOE  
Position: Full Time  
Start Time; Hours: 7am-3:30pm M-F (Flexible)  
Contact: Gus Jimenez (V.P. of Operations)

The job of a Controls System Engineer is to carry out of the objectives of the V.P. of Operations and/or assigned Project Manager, including but not limited to: submittal and drawing preparation; cost, fabrication, procurement, and job status report preparation; inspecting and commissioning equipment; testing equipment interaction with other systems; and ensuring end-to-end controls functionality with a minimum of 5 years' experience in designing, documenting, programming, and commissioning automated control systems. Should include Radio Telemetry Design, Radio Path Studies and Radio Troubleshooting experience.

The qualified applicant shall be able to take the project through all phases of design, including review of contract specifications, completely comprehend system P&IDs, Design system Control panels, generate I/O lists, and grasp interface electrical circuits. Experience in field startup and troubleshooting is required.

### **Essential Duties and Responsibilities:**

- Ability to design and document Control system panels, RTU/PLC Control Panels, Switchboard, Motor Control Centers.
- Design and select process instrumentation equipment for project applications
- Prepare and compile information for the generation of project submittals for both hardware and Software.
- Report to management the status of ongoing operations.
- Strong documentation skills in field site reporting.

- Certify that hardware and software are working properly and in accordance with specifications.
- Interpreting project specified requirements for design and providing viable design solutions within the project design criteria and budgets.
- SCADA design and logic controls experience and reporting.
  - Wonderware,
- Strong process controls in the Water and Wastewater Controls and Power Plant Industry.
- Radio Communication design, specifying, testing, trouble shooting and Radio Path Study generation.

**Qualifications:**

- Experience in process controls around water, waste water, and power industrial control systems.
- PLC programming experience with at least one of the following platforms:
  - Rockwell Automation Allen-Bradley: Control Logix, PLC-5, or SLC500.
  - Modicon: Quantum, Compact, or M340.
  - GE Fanuc: Rx7i, Rx3i, 90/70, 90/30, or VersaMax.
- In depth HMI experience with at least one of the following packages:
  - Wonderware: InTouch or Application Server, Ignition, VT SCADA.
  - GE: iFix or Simplicity.
  - Rockwell Automation Allen-Bradley: RSVIEW.
- System integration and networking experience with one or more of the following:
  - TCP/IP
  - ControlNet
  - Profibus
  - Modbus+/RTU
- Ability to learn HSQ SCADA system Software protocol for integration and maintaining existing client base.
- Install new controls hardware and software applications in order to upgrade systems.
- Monitor the quality of hardware and software and suggest design changes to improve reliability.
- In the case of a problem, analyze and find the cause(s) of the issue and develop corrective action plan (may be required to perform actual repairs or fixes, as applicable).
- Study existing problems, anticipate subsequent troubles and suggest modifications in order to prevent complications.
- Provide technical assistance to clients and field personnel.

**Supervisory Responsibilities:**

- No direct supervisory responsibilities, but may be asked to occasionally “oversee”

**Equipment to be Used:**

- Computer
- Cell Phone
- RF Analyzer (Anritsu)
- Digital multimeters
- Cable tester
- Optical power meter
- Optical time domain reflecto-meter
- Standard hand and power tools

The employee must have good troubleshooting and technical skills and excellent knowledge of the hardware and software used.

**Education and Experience**

- Bachelor degree (BA/BS) from a four year college or university or five-sevens years related experience and/or training or equivalent combination of education and experience.
- P.E. Control Systems License (Desired but not required)
- Computer skills
  - Project Management software
  - Excel and Word
  - Internet and database
  - Design and Project specific applications
  - SCADA and HMI Platforms
- Language skills – ability to interpret documents such as safety rules, operating and maintenance instructions, and procedure manuals. Ability to write detailed routine reports and correspondence. Ability to speak effectively before groups.
- Mathematics – ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations. Ability to work with mathematical concepts such as probability and statistics and fundamentals of plane and solid geometry and trigonometry.
- Reasoning ability – ability to solve practical problems and deal with a variety of variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, and diagram or schedule form.

### **Travel, Demands, and Environment**

- Travel up to 35% for the purpose of inspecting, commissioning, troubleshooting, and upgrading field equipment.
- Physical demands – includes, but is not limited to frequently listening, talking, sitting, standing, walking, climbing and balancing, stooping, kneeling, crouching, and crawling. Reasonable accommodations may be made to enable individuals with disabilities to perform essential functions.
- Work environment – work in office and field environments including wet or humid conditions, work near moving mechanical parts, work in outdoor weather conditions, and work in areas with risk of electrical shock.

***This job description is not intended to represent a complete, comprehensive list of all duties and responsibilities that may be required in this position. There may be unplanned activities and other duties as assigned.***

Submit resumes for consideration to: [jimenez@hsq.com](mailto:jimenez@hsq.com).