

PROVO RIVER WATER USERS ASSOCIATION
SCADA Field Technician
Job Description

Last Update: April 2022
Supervisor: Operations & Engineering Manager

Responsibilities

- A) SCADA System - Facilitate monitoring and control of Association automation equipment; ensure availability of data through maintenance and repair of a multi-site data monitoring and control system with PLCs, sensors and transmitters, cable systems, etc.
1. Evaluate operation of SCADA system components
 2. Recommend upgrades and modifications to the system
 3. Estimate costs of system modifications
 4. Diagnose all control system problems
 5. Repair control system components as needed
 6. Design new monitor and control points as required
 7. Code PLC ladder logic to accommodate new monitor and control points
 8. Code HMI interface software to provide monitoring and control access and functionality
 9. Calibrate all instrumentation transmitters and actuators to specifications
 10. Operate test and measurement equipment
 11. Run conduit; select and pull wiring; build control panels; terminate wires to motors, actuators, sensors, and terminal blocks.
 12. Direct other staff and contractors in the implementation of Association SCADA system installations, improvements, and upgrades

Position Qualifications

Education/Experience

Required:

Associates degree in electronics or instrumentation or equivalent military or vocational training AND a minimum of two years of SCADA technician experience.

Preferred:

Bachelor's Degree

Licenses and Certifications

Required:

- Valid Utah Driver's License

Preferred:

- ISA Certified Control Systems Technician (ISA – CCST) Level II
- Utah Water Operator Certification – Distribution)

Knowledge, Skills, and Abilities

Required:

- A) Must be able to operate specific mechanical equipment such as mechanical screens, headgates, and valves.
- B) Must be able to use computers for word processing; must be skilled in the use of Microsoft Excel in the creation of spreadsheets, including the use of formulas.
- C) Must understand computer operating system fundamentals.
- D) Must be able to write, interpret, and troubleshoot ladder logic program code.
- E) Must be able to use electronic devices such as air monitoring equipment, flow meters and gauges, and must have knowledge of electrical fundamentals and electronic component operations.
- F) Must be able to read electronic schematics; use analog and digital electronic test equipment; use hand tools and soldering equipment to adjust, troubleshoot and repair electronic equipment.
- G) Knowledge of solar panels, battery charging, and installation is desirable.
- H) Experience with PLC ladder logic, specifically Schneider Momentum PLC hardware a plus.
- I) Ability to work with all types of wiring and conduit including various configurations of AC power lines and DC control circuits.

- J) Must have basic mechanical assembly/disassembly skills and familiarity with various types of mounting hardware as well as hand and power tools.
- K) Must have competent mathematics skills in geometry and algebra.
- L) Must be able to operate office machines such as copiers, printers, and fax.
- M) Must be able to learn Association's water delivery system.
- N) Must be able to operate a 4-wheel-drive truck, snowmobile, snowcat, and 4-wheeler (ATV) over long distances, rough and remote terrain, and in extreme weather conditions.
- O) Must have good housekeeping habits and be willing and able to do general housekeeping chores; must be self-motivated, have strong initiative, and be neat and well organized.
- P) Must be able to independently diagnose problems, provide recommendations for solutions, follow instructions, and direct the work of vendors and contractors.
- Q) Must be able to work alone for hours at a time and also interact well in an office environment.
- R) Will be expected to work extra hours when necessary.
- S) Must be able to attend out-of-town training.
- T) Communication Skills: Expected to comprehend and write memos, letters, and correspondence, and share information in one-on-one and group situations.
- U) Problem Solving: Must have the ability to independently diagnose problems, apply common sense, collect and analyze data, and interpret results yielding varying outcomes; such work might include working with contractors, equipment suppliers, and engineers troubleshooting equipment or communication failures.
- V) Cooperative Interaction: Must be able to coordinate with contractors, vendors, shareholder agencies, governmental agencies, and fellow employees.

Physical Demands

While performing the duties of this job, the employee is regularly required to: sit, talk, hear, feel the attributes of objects, grasp, push, stand, walk, drive, reach with arms or hands, stoop, kneel, crouch, crawl, and perform repetitive wrist, hand and/or finger movements.

The employee is frequently required to: climb or balance; sit and stand for periods up to one hour; hike over rough terrain at elevations up to 10,000 feet carrying up to 50 pounds; work at heights up to or greater than 50 feet or over and near water; work in aqueducts; climb tall ladders, antenna support structures and uneven and rough terrain using appropriate safety devices to access communications equipment; work safely in pipelines, subterranean vaults, and other confined spaces; work at night, if required.

The employee must lift weight or exert force as follows:

Regularly: up to 25 pounds

Frequently:	26 to 50 pounds
Occasionally:	51 to 80 pounds
Rarely:	81 to 100+ pounds

Specific vision abilities include: Clarity of vision at 20 feet or more and 20 inches or less. Three-dimensional vision (ability to judge distance and space relationships). Identify and distinguish colors and adjust the eye to bring an object into sharp focus and to see up and down or to the right or left while fixed on a point. Must have good hand-eye coordination and be able to distinguish colors.

Working Environment

Regular exposure to office, meeting, or conference environment, outdoor weather conditions in mountainous areas year-round in all manner of extreme conditions, risk of electrical shock, wet or humid conditions, work in confined spaces. Must be able to safely climb and descend stairs, tall ladders, uneven and rough terrain.

Frequent exposure to vibration, work in high and dangerous places, work near moving mechanical parts, and work in hazardous traffic conditions.

Noise level: Ranges from quiet to very loud.

Directly Supervises: None