POSITION DESCRIPTION

SCADA Technician III

JOB TITLE: SCADA Technician III
DIVISION: Eastern

REPORTS TO: Plant Operations Superintendent
DEPARTMENT: Gas, Water, Waste Water

EFFECTIVE DATE: April 2014

SUMMARY:

This is an experienced and skilled position responsible for programming process control equipment to control water distribution, maintain and measure gas pressures, and manage waste water through the operation of motors, electronic valves, variable frequency drives (VFD), and remote terminal units (RTU). Mentors less senior Technicians, serves as the lead worker on difficult projects, and handles the most complex SCADA issues. Ensures all preventative maintenance, corrective maintenance, and predictive maintenance tasks are complete and accurate.

Essential Duties and Responsibilities:

1. Trains and mentors new SCADA technicians and ensures their work is accurate and efficiently delivered. Trains Riviera Staff in the operational use of Trihedral VTS software.
2. Manages large projects, software updates, and other major issues related to SCADA operations to include developing time lines, establishing accountabilities, monitoring work progress, and handling problems.
3. Establishes short term and long term objectives for SCADA operations and coordinates with the management team/operational personnel to meet their needs and goals.
4. Assigns tasks, monitors progress, and provides direction as needed to improve overall SCADA operations quality.
5. Maintain and update the Supervisory Control and Data Acquisition (SCADA) system to insure uninterrupted, safe, reliable, and efficient operations within gas, water, and waste water operations as well as cable online status.
6. Design, develop, document, coordinate and implement changes to the SCADA system to support operational changes and engineering projects.
7. Install, program, inspect, calibrate, maintain, operate, troubleshoot, repair and adjust various electric, electronic, and pneumatic devices, including Programmable Logic Controllers (PLC) and Supervisory Control and Data Acquisition (SCADA) systems
8. Build the SCADA databases to acquire data from remote PLC sites including drawing in tags of information to collect from various instruments. Automate data collection and streamline reporting using SCADA and office tools.
9. Design and draw graphic displays for plants and other operations and relate to SCADA software.
10. Monitor operations using troubleshooting computer software tools.
11. Work closely with operations personnel on a daily basis and respond to their gas, water, and waste water needs.
12. Investigate, evaluate, and recommend hardware, software, or service required to repair, replace, enhance, update or improve the SCADA environment.
13. Resolve data communication problems during outages.
14. Update software and software configurations as needed to maintain system integrity.
15. Coordinate with vendors for product support and negotiates pricing, service delivery, and equipment needs.
16. Responsible for writing documentation as needed to support job functions
17. Perform scheduled compliance and/or maintenance checks and/or work orders on all equipment under his/her responsibilities.
18. Maintain records on computer system to ensure compliance with state, federal, and Company policies and regulations.
19. Ensure all technical drawings and documentation are kept current and secure, both electronically and hard copy.
20. Respond appropriately to abnormal operating conditions as identified through SCADA or calls regarding leaks/electrical issues in order to maintain a safe and reliable operating environment.
21. Wire, test, and install complex control panels. Develop HMI to insure proper operation.
22. Inspect, install, or replace lights and/or antennas on towers.

Knowledge, Skills, and Abilities:

1. Knowledge of personal computing devices and business/technical software including Trihedral VTS SCADA, Direct Soft, Eagle Research, and other related software. Includes an understanding of tag structures, application creation and system architecture in Trihedral VTS SCADA software or equivalent
2. Knowledge of operations of SCADA system; uses, operations, troubleshooting, security and technical updates.
3. Knowledge of programmable logic control (PLC), how to update firmware, and how to read and write logic.
4. Knowledge of variable frequency drives (VFD), how to change parameters, how to wire equipment to the VFD, how to set a PID loop (proportional-integral-derivative) within a VFD to maintain appropriate operational levels.
5. Knowledge of remote terminal units (RTU), how to write a database, how to change parameters, and how to install, wire, and troubleshoot.
6. Knowledge of personnel management concepts such as leadership, motivation, communication, performance management, evaluation, goal setting, strategy development, and ethics.
7. Expert knowledge of the operational impacts of Control, PID and Process Schematics.
8. Knowledge of SCADA communication using wireless, fiber, coaxial or wired media.
10. Ability to develop Preventative Maintenance Work orders and interface hour meters with Asset Management Software.
11. Ability to commit time and resources to continuous learning and improvement.
12. Ability to troubleshoot electrical, mechanical and process issues and concerns.
13. Ability to draw and interpret wiring schematics.
14. Ability to create a new PLC, VTS, VFD, HMI, or RTU program without assistance.
15. Able to generate an electrical schematic of a control system of medium complexity and a VTS SCADA application or page.
16. Ability to read, understand, and interpret process schematics and logic.
17. Ability to document work, material and daily maintenance procedures, work instructions, and inspection and maintenance activities in a legible and accurate manner.
18. Ability to receive, understand, and implement verbal or written instructions.
19. Ability to work productively in a solitary work environment or in a group setting.
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20. Ability to read, interpret, and understand wiring schematics, operating instructions, process flow charts, safe working standards, engineering drawings including electrical and control schematics, and piping drawings.
21. Ability to troubleshoot equipment (computer servers/modems, SCADA, VFD, RTU, and operational equipment) problems and diagnose complicated control issues using standard measurement and diagnostic equipment.
22. Ability to communicate orally and in writing with a cross functional group of coworkers.
23. Ability to develop and maintain positive relationships with employee and customers.
24. Ability to have regular and predictable work attendance.

Work Environment/Physical Demands:

Position requires a high level of commitment during working and off hours due to the continuous nature of processes that are involved. **Position is 40% field time and 60% office.** Lifting demands could be 50 pounds +/- for a short duration. Walking, jumping and balancing are required. Climbing is required up to 180 feet for Water Tank or Tower inspection.

Responds to emergency calls 24 hours per day when/if assigned standby.

Environments that will be encountered are:
- Waste Water including but not limited to feces, urine, grease, oil and sludge.
- Mercaptan
- Noxious odors are normal.
- Insects including but not limited to roaches, midges, flies and worms.
- Enclosed and confined spaces including but not limited to man holes, clear wells and lift stations.
- Heights not to exceed 200 feet.
- Office environment

Minimum Qualifications:
- Seven years’ experience working with process control systems, PLC protocols, or other networking and computer communications systems.
- An Associate Degree in Drafting, Industrial Engineering Technology, Electronics, Electrical Technology, Process and Maintenance Technology, or other related field will substitute for some of the required experience.
- Military training as well as experience in industrial controls as an apprentice will also substitute for some of the required experience.
- Experience managing employees, project management, and asset management/maintenance is also desired.
- Must possess or be able to obtain a valid driver’s license within 60 days of employment.