

S.C.A.D.A. TECHNICIAN

SUMMARY: Under limited supervision, performs the installation, testing, troubleshooting and maintenance of Supervisory Control and Data Acquisition (SCADA) computers and software, SCADA distributed control system (DCS) hardware and control programming in the SCADA and programmable logic controller (PLC) processors, and performs related duties as assigned.

ESSENTIAL FUNCTIONS: *(Essential functions, as defined under the Americans with Disabilities Act, may include the following tasks, knowledge, skills and other characteristics. This list is ILLUSTRATIVE ONLY and is not a comprehensive listing of all functions and tasks performed by incumbents of this class.)*

DUTIES AND RESPONSIBILITIES: *(which are not in any hierarchical order)*

1. Responsible for maintaining and improving the function of the overall SCADA system (SCADA system includes PLCs, Human-Machine Interface (HMI) and related equipment such as data historian and reporting systems); administers passwords and system access; plans and implements software refinements; oversees SCADA archiving and reporting.
2. Responds to operator questions and concerns regarding SCADA.
3. Assists in training operators on functions and features of the SCADA system.
4. Isolates problems that occur with the SCADA system; resolves problems on SCADA computers; resolves problems on SCADA control software; issues work orders for resolving problems with other SCADA components.
5. Responsible for overseeing the maintenance of field instruments.
6. Observes, trains, and assists in performing preventive and emergency maintenance on equipment.
7. Performs related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES:

- Knowledge of SCADA / Distributed Control Systems (DCS) systems and water treatment processes to include: programmable logic controllers (PLCs), Human Machine Interface (HMI) software, input/output cards, network interface modules, operator workstations, digital computer units (DCU), power supplies, Data Historian, and Active Factory data reporting.
- Knowledge and ability to retrieve SCADA data from various SCADA systems
- Knowledge of procedures for archiving SCADA data
- Knowledge of procedures for creating and installing SCADA hardware and software including PLC programming using ladder logic and function block programming.
- Knowledge of procedures for programming and operating actuated valves
- Knowledge of procedures for testing SCADA control programs and hardware components including DCUs and PLCs
- Knowledge of procedures for troubleshooting computers
- Knowledge of process flow diagrams and P&ID Piping & Instrumentation Diagrams
- Knowledge of SCADA data report processing using trends and automated reports such as Active Factory.
- Knowledge of the theory and principles of electricity, motors, and switches, electronics, piping systems, and pumping systems.
- Knowledge of Instrumentation and Control devices such as variable speed drives, control valves, solenoid valves, pressure indicators, temperature indicators, flow indicators, limit switches, and 4-20ma communication signals.
- Knowledge of wastewater treatment processes
- Ability to develop and configure SCADA HMI graphics to incorporate new field inputs or outputs.
- Ability to create and implement programming necessary to incorporate new field inputs or outputs, or to improve safety or automation.
- Ability to follow oral and written instructions and follow safety practices and recognize hazards.
- Ability and knowledge of SCADA programming to include safety interlocks, permissives, analog control, valve tuning

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- Ability to program SCADA control processors
- Ability to troubleshoot problems with SCADA fiber optic network. SCADA hardware, and SCADA software.
- Ability to establish and maintain effective working relationships with those contacted in the course of work.

PHYSICAL REQUIREMENTS AND WORK ENVIRONMENT: Work involves performing moderate work in inside and outside work environments including all types of weather. There is occasional need to stand, stoop, walk, lift moderately heavy objects (up to 50 pounds) and perform other similar actions during the course of the workday. The City of West Palm Beach promotes and maintains a drug/alcohol free work environment through the use of mandatory pre-employment and random drug testing for certain employees.

MINIMUM QUALIFICATIONS: Associate's degree from an accredited school or college with specialized training in electronics, information systems, or related field and three (3) years related experience to include experience with PLC programming, SCADA or DCS programming experience (including building HMI/DCS pages and implementing new instrumentation installation) and/or experience as an Instrumentation and Control Technician, or any equivalent combination of training and experience.

A valid Florida driver's license is required; a valid driver's license from any state (equivalent to a State of Florida Class E) may be utilized upon application; with the ability to obtain the State of Florida driver's license within 30 days from day of employment.

DESIRED CERTIFICATIONS/ TRAINING: Rockwell Automation Allen Bradley Controllogix Programmer Certificate, RSLogix5000 training, Siemens S7 programmer certificate, Wonderware Insource Integrator or training certificates, VTScada Integrator or training certificate, Intellution iFix Integrator training or certificate.