

**Job Code**  
**300149**

**FLSA Status**  
**N**

## Summary

Under minimal supervision, responsible for maintaining, installing and troubleshooting all plant instrumentation and other control systems. Applies knowledge and understanding of programming and troubleshooting plant controls processes and the equipment used to control those processes. Makes recommendations to improve the control of the processes or the processes themselves. Supports the maintenance of plant equipment to ensure a minimum of downtime.

## Essential Functions

This job description reflects management's assignment of essential functions; it does not prescribe or restrict the tasks that may be assigned.

- Generates programming changes for PLCs.
- Creates simple programs for programmable logic controllers; installs and troubleshoots programmable logic controllers. Navigates the programs to troubleshoot process upsets.
- Creates projects for stand-alone and networked HMIs; installs and troubleshoots stand-alone and networked HMIs.
- Installs and maintains the process control instruments, both electronic and pneumatic.
- Configures parameters and troubleshoots variable frequency drives.
- Troubleshoots process instrumentation.
- Traces and corrects control loop malfunctions; participates in the maintenance and production concerning instrument systems.
- Provides direction to plant electricians, automation technicians and mechanics as needed to complete repairs.
- Recommends component changes or replacement devices for more efficient and accurate process measurement and control.
- Isolates and corrects defective valves, broken diaphragms, contaminated systems, improperly working electronic units, and other malfunctions or inefficient processes.
- Prepares various reports and maintains historical records of problems and causes for specified

preventive maintenance or troubleshooting assignments.

- Maintains satisfactory attendance, to include timeliness.
- Responsible for understanding and complying with applicable quality, environmental and safety regulatory consideration.

### Supervisory Responsibilities

- N/A

### Qualifications

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill and ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

#### Minimum Qualifications

- High school diploma or State-issued equivalency certificate plus 5 years of experience working with PLC controls, logic circuits, pneumatic and electrical equipment; OR
- 2 years technical degree in electrical technology plus 3 years of experience working with PLC controls, logic circuits, pneumatic and electrical equipment.
- Required to climb stairs and ladders; required to conduct work at heights.
- Knowledgeable of Electrical Safety procedures.
- Willing and able to work any assigned shift (swing, or graveyard) and weekends and overtime.
- Skilled in reading, comprehending, interpreting and executing simple instructions, short correspondence and memos.
- Skilled in writing simple correspondence.
- Skilled in adding, subtracting, multiplying and dividing using whole numbers.

#### Preferred Qualifications

- High school diploma or State-issued equivalency certificate plus 7 years of experience working with PLC controls, logic circuits, pneumatic and electrical equipment or 2 years technical degree in electrical technology plus 5 years of experience working with PLC controls, logic circuits, pneumatic and electrical equipment.
- Knowledge of pneumatics and hydraulics.
- Knowledge of motion control and servo drive technology (software and hardware).
- Understanding of the basic principles of EtherNet networks and addressing, HMI, SCADA, and computer network communication systems.
- Knowledge of programmable logic controllers, MicroLogix, SLC500, PLC5, ControlLogix, CompactLogix, and FlexLogix.
- Proficient in the maintenance and troubleshooting of Allen-Bradley, PLC HMI hardware and software, PanelView, PanelView+, and FactoryTalk Studio ME.
- Knowledge of the fundamentals of process control and 4-20 ma current loop architecture.

- Knowledge of Allen-Bradley variable frequency drives in standalone and networked configurations.
- Experience developing FactoryTalkView applications for ME Station (PanelView+).
- Experience configuring, maintaining, troubleshooting FactoryTalkDirectory (local) and RSLinx Professional.
- Experience working with RSNetworkx, able to configure industrial networks (ControlNet, DeviceNet, and EtherNet),
- Knowledge of motor control and automated control circuits.
- Skilled in MS Excel, MS Word and MS PowerPoint at a basic level.
- Experience working in a team environment.
- Experience completing the required paperwork associated with instrumentation duties.
- Skilled in calculating figures and amounts such as discounts, interest, commissions, proportions, percentages, area, circumference, and volume.
- Skilled in applying concepts of basic algebra and geometry.
- Experience defining problems, collecting data, establishing facts, and drawing valid conclusions.
- Experience interpreting an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

### Physical Demands

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is occasionally required to stand; walk; sit; climb or balance; stoop, kneel, crouch, or crawl; and talk or hear.

### Work Environment

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is occasionally exposed to wet or humid conditions; moving mechanical parts; high, precarious places; fumes or airborne particles; toxic or caustic chemicals; outside weather conditions; and risk of electrical shock. The noise level in the work environment is usually moderate.