

# **Southwest Iowa Renewable Energy, LLC**

## **Position Description**

**Job Title:** Electrical/Instrumentation Technician  
**Department:** Maintenance  
**Supervisor:** Maintenance Manager  
**FLSA Status:** Full-Time, Non-Exempt

### **Summary**

Under general supervision, perform highly skilled work in the installation, programming, maintenance and repair of electronic, pneumatic, hydraulic, electrical, mechanical and other monitoring, recording and instrumentation devices and equipment; and perform related work as required. This position will have on-call responsibilities.

### **Essential Responsibilities and Duties**

1. Installs, programs, inspects, troubleshoots, and adjusts electrical and mechanical equipment, instrumentation, and related information systems.
2. Performs tests and maintenance on mechanical, electrical, and instrumentation equipment; interprets readings and outputs of equipment; ensures proper functioning of equipment and related information systems.
3. Reviews operator's manuals and other established guidelines; ensures equipment and information systems are operated in accordance with established guidelines
4. Performs basic programming for utilities information systems; programs with ladder logic and relay logic; operates PLCs, RTUs and associated inputs/outputs; operates VFDs; performs telecommunications networking.
5. Initiates work orders pertaining to utilities & controls equipment and information systems; ensures work orders are accurate and complete; performs record-keeping functions.
6. Serves as a liaison to manufacturers, contractors, company personnel and other internal or external parties with respect to controls equipment, instruments, and related systems.
7. Ensures compliance with National Electrical Code and other applicable laws, codes, or regulations.
8. Checks for potential hazards; understands and adheres to all applicable safety rules, regulations, practices, or procedures.
9. Organizes work assignments and sets priorities.
10. Performs and/or assists with work on process systems and related equipment as necessary.
11. Responds to on-call periods and must reside within a 60-minute response time to SIRE ethanol plant.
12. Contributes to the efficiency and effectiveness of the company's service to its customers by offering suggestions and directing or participating as an active member of a team.
13. Represents SIRE with our core focus values.

### **Qualifications**

- Knowledge of electronics and instrumentation.
- Have knowledge of and use the required personal protective equipment.
- Safe work methods and safety regulations pertaining to the work.

- Use hand and power tools related to the instrumentation trades.
- Install, repair, and maintain assorted plant control and process monitoring instrumentation. This includes; electronic, pneumatic, hydraulic, and microprocessor based control and monitoring systems.
- Ability to use test and calibration equipment to calibrate transmitters and control loops.
- Ability to use computer and related computer software to program controllers and analyze control loops. Good computer skills required.
- Ability to use mathematics and algebra to scale and calibrate process instrumentation.
- Use knowledge of analog and digital circuitry to troubleshoot instrumentation to the component level and effect repairs to microprocessor-based instruments, computer hardware, wiring, and annunciator systems.
- Install and maintain programmable logic control systems (PLC). Including VFD drives.
- Interpret and/or modify PLC control logic as necessary. Install and calibrate pressure, temperature, flow, and level controls.
- Observe installed systems to detect hazards and determine the need for adjustments or modifications.
- Reading and interpreting manuals, specifications, drawings and blueprints.
- Reading and interpreting meters, gauges, charts, and a variety of instruments.
- Reading and interpreting design, PID, control, and electrical drawings.
- Considerable knowledge of electronic instrumentation, process control and electrical systems.
- Good knowledge of electrical codes and regulations.
- Use computerized maintenance system (MAPCON) to retrieve and enter information.
- Ability to use engineering drawings, schematics, and service manuals to troubleshoot, install, and repair equipment.
- Ability to work effectively with others.
- Ability to communicate orally and in writing.
- Exemplify the high standards necessary to accomplish the goals of the Company

### **Education and Experience**

- High School Diploma required
- Two year certificate or degree as an Electrician Instrumentation Tech. Equal experience with electronic, electro-mechanical and pneumatic industrial instrumentation.
- Work experience & equivalent to 2 years experience in core essential responsibilities and duties.
- Valid driver's license

### **Physical Demands**

Ability to lift and/or move up to 50lbs.

Ability to climb stairs and ladders.

Ability to work in outside conditions and adverse weather.

Walking

Standing

**Working Environment**

While performing the duties of this job, the employee is regularly exposed to work near moving mechanical parts.

The employee is regularly exposed to dusty conditions.

The employee is regularly exposed to high noise environments.

The employee is regularly exposed to outside weather in all conditions.

The employee will regularly be exposed to chemicals used in the process.