

## **Electrical & Mechanical Technician**

### Job Description

**Type:** Full Time Non-Exempt

**Reports to:** Maintenance Manager

#### **Position Summary:**

Technician assumes responsibility and technical leadership for maintaining electrical systems, electrical components/equipment, parameter set up, diagnosing malfunctions and resolving issues. Will perform routine preventive maintenance, inspection or testing of machinery and will assemble, install, or repair any or all parts of the electrical and instrumentation systems while supporting plant mechanical needs.

#### **Essential Job Functions:**

- Provide technical assistance to maintenance personnel in diagnosing, troubleshooting, determining root causes of failures, and eliminating equipment problems. Troubleshoot and solve complex electrical system and design problems
- Advanced support to troubleshoot, repair, maintain and improve systems components following all local and national electrical codes - this may include motors, drive control components, electrical systems of 480v, 220v, 110v, and PLC/DCS devices
- Support network and communication systems; low voltage equipment & components; 4-20 mA I/O and 24V DC discrete wiring and calibrate/repair process control instrumentation, sensors and other field devices
- Update wiring schematics and prints
- Develop and maintain documentation and logs that record performance, problems, repairs, calibrations, tests, etc.
- Analyze and interpret signals from log files to improve equipment performance and reliability
- In the event of an emergency plant power outage that would require electronic, instrument, electrical expertise, technician may and should expect to be called in after hours, including weekends and holidays
- Remove, install, rebuild, lubricate, perform preventative maintenance and clean all equipment associated with plant process as directed
- Work with operations to accomplish all tasks in a timely and safe manner
- Complete any and all tasks assigned, discuss any problems with the Maintenance Supervisor, Maintenance Planner/Scheduler or Maintenance Manager
- Maintain a team environment with other plant departments and champion Dakota Ethanol LLC in the community
- Adhere to all safe work practices are a condition of employment; complies with all OSHA and safety requirements
- Must be able to multi-task with accuracy and concentration under stress to meet deadlines and productivity demands

#### **Education/Experience:**

Specialized training / Relevant Degree(s) or Certification(s) / or experience is required to perform the duties of this position

- Ability to read, understand and update electrical prints
- Ability to communicate technical information to a diverse audience both orally and in writing
- Possess an advanced understanding of controls logic, PLC programming and networking systems
- Possess outstanding documentation skills
- PLC/DCS I/O troubleshooting experience
- Calibration, configuration, and repair for measurement/control instruments for flow, level, pressure, temperature, and pH including associated valves and valve actuators
- DeltaV DCS software experience is a plus
- Power systems up to 480v 3 phase
- Understanding Ladder Logic will be a plus

#### **Physical Requirements:**

Must be able to: manage confined space entry, climb ladders and stairs, lift and move up to 60 lbs., work at heights, operate heavy machinery, and meet call-in requirements as needed

#### **Work Environment:**

Regularly exposed to dust, odors, fumes, noise, and temperature variations

The specific statements shown in each section of this description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to successfully perform the job.