G&W ELECTRIC COMPANY – POSITION DESCRIPTION

Job Title: Switchgear Associate Electrical Design Engineer   **FLSA:** Exempt

Department: Switchgear Engineering

**General Summary:** The Switchgear Associate Electrical Design Engineer is responsible for the design, integration, and application of electronic components on G&W products so that switchgear may be remotely operated and used to automatically reconfigure power distribution systems.

**Essential Functions:**

- Design custom solutions to match customer specifications through the selection and integration of electronic components
  - Current and Voltage Transformers
  - Protective Relays
  - Motor Controls
  - Power Supplies
  - Communication Equipment (radios, modems, antennas, etc)
  - Programmable Controls
  - Cable assemblies and Wire Harnesses

- Prepare and review drawing packets used and created by the Mechanical engineers, designers, and drafters to document electronic assemblies and Bills of Material for orders

- Generate and review drawing packets used and created by the Electrical engineers, designers, and drafters to document logic, point to point wiring, and system interaction.

- Assist Manufacturing in determining proper testing procedures per Industry Standards and Customer requirements

- Provide technical support to Manufacturing

- Provide pre-sales information to Sales and Marketing including: Estimated Bill of Material, Design lead time, and/or written description of system operation.

- Establish and document standard design processes and products.

- Simplify product designs for improved manufacturability and reduce cost without compromising product quality and function.

- Assist Sales and Marketing and Development Engineering with projects to enhance existing and develop new product lines.
Review engineering designs and drawings for conformance to engineering standards and best practices

Interface with purchasing and vendors in the modification and approval of component parts and assemblies.

Knowledge, Skills and Abilities:

Required:
Excellent interpersonal skills and ability to coordinate the activities within a department comprised of diverse tasks and demanding schedules.

Training and/or experience in basic electrical or system troubleshooting.

Experience creating drawings, models and assemblies on CAD software is necessary, RS Designer preferred.

Knowledge of MS Windows, Word, Spreadsheet, Outlook and project applications is required.

Preferred:
Knowledge of and experience with power distribution system fundamentals such as:

- Symmetrical components
- Load flow
- Short circuits
- Fault current calculation
- Over current protection functions
- SCADA communications and standards
- Typical primary Voltage and Current test procedures
- Electromagnetics and the selection and integration of motors, transformers, and generators on the power distribution system

Education/Experience:

Required: Bachelor's Degree Electrical Engineering or currently in pursuit of Electrical Engineering degree

Preferred: 3 or more years of progressive experience in Engineering design and/or development.

Physical Demands: (The work is classified as Medium – Heavy Physical Demand Level (PDL) by the US Dept. of Labor's Dictionary of Occupational Titles.)
Frequencies: Occasional (1-33%); Frequent (34-66%); Continuous (67-100%)

Lifting Demands:
Lift up to 75 lbs. on an occasional basis floor to waist.
Lift up to 60 lbs. on an occasional basis floor to chest.
Lift up to 50 lbs. on an occasional basis floor to shoulder.
Carry up to 50 lbs. on an occasional basis up to 25 feet.

Postural Demands:
- Sitting – frequent
- Standing – occasional
- Walking – occasional
- Bending/stooping – occasional
- Squatting/kneeling – occasional

Miscellaneous Demands:
- Gripping, manipulation, fingering – frequent
- Variable hand/power tool use – frequent

**Customer Satisfaction/Safety/Quality/Environmental:**
- Our goal is to provide a world-class service to our customers by delivering defect-free products on time to both our internal and external customers. Your comments and suggestions are an integral part of our success.
- Responsible for ensuring that quality systems function effectively and products meet customer requirements.
- Responsible for following safety and environmental rules and regulations.
- Responsible for ownership of his/her own safety and that of their coworkers.
- Responsible for maintaining a safe and healthy work environment.
- Making certain potential hazards are identified and corrected in a timely manner.
- Responsible and empowered to make the decisions and take the necessary actions that are required to fulfill the quality policy.
- Responsible for the quality of his/her work.
- Conform to G&W’s Environmental Management System (EMS) and comply with applicable regulatory requirements.
- Contribute to continual improvement of activities, products and services that will help prevent pollution, reduce waste and protect our environment.

**Note:** This job description is not intended, nor should it be construed to be an exhaustive list of all responsibilities, duties, skills, or working conditions associated with a particular job. It is intended only to be a general description of the essential functions common to positions of this type.