



JOB DESCRIPTION

Sr. Electrical Engineer

Revised January 2024

POSITION SUMMARY:

The Electrical Engineer coordinates the electrical work of the project assigned, from Engineering to the hands-on installation of electrical systems, to ensure that the project's goals are accomplished within established time frames and funding parameters.

ESSENTIAL JOB FUNCTIONS:

1. Primary responsibility for the design work associated with the following Burger Knowledge Base categories: wire ways, AC power systems, DC power systems, Centralized Monitoring systems, vessel lighting systems, vessel receptacles, and fire detection system
2. Primary Burger responsibility, *in collaboration with outside suppliers*, for the design work associated with the following Burger Knowledge Base categories: audio/visual electronics system, navigation and communication electronics system, computer/IT system, and security system. Author comprehensive work scope documents for 3rd party contracted electrical engineering services.
3. Assist in training and mentoring of all electrical associates
4. Extract requirements from Classification Society or Flag State regulations and incorporate them into the project-specific designs
5. Prepare or oversee the creation of electrical load analysis for AC and DC systems
6. Prepare or oversee the preparation of technical specifications for the purchase of vessel electrical equipment including certification documents as required by class (i.e. ABS).
7. Collaborate with Burger purchasing department to obtain quotations and select suppliers for significant electrical equipment
8. Prepare or oversee the creation of electrical wiring diagrams for all vessel systems as required
9. Maintain design status and provide regular updates for the purpose of engineering reporting
10. Gather documentation related to vessel electrical equipment
11. Prepare electrical system commissioning documents, including quality check sheets, functional tests, and operational signoffs
12. Provide production support regarding electrical designs to ensure that designs are clearly understood
13. Provide electrical installation and troubleshooting expertise
14. Collaborate with other engineering disciplines relative to the layout of electrical equipment and to ensure that equipment chosen by others is appropriate for the vessel
15. Assist in developing new project material and labor estimates relative to the electrical systems



16. Understand and monitor the project 'Look Ahead' schedule
17. Ensure all electrical work, including the work of any electrical vendors on the project, is done in accordance with Burger Boat Company standards of quality and workmanship as defined by technical drawings, design briefs, vessel specifications, and knowledge base information
18. Verify locations for electrical installations in interior spaces
19. Assist the Metals department with the installation of electrical foundations and bracketing (hot work) for all electrical installations, including wire ways, subpanels, AC, and DC equipment
20. Communicate clearly with Project Management and other departments concerning materials, technical requirements, manpower, scheduling, work coordination, change orders, etc.
21. Attend meetings as required
22. Provide subcontractor support where planned or required
23. Work with all Managers, Engineering, and Warranty/CRM personnel to identify and implement strategies to:
 - a. Determine equipment, system, and process improvements
 - b. Determine ways to control waste
 - c. Encourage ideas and innovation to control production costs and reduce warranty issues
 - d. Resolve problems and prevent recurring issues

POSITION IN ORGANIZATION:

This position reports directly to the Director of Engineering. This position has no direct reports.

DECISION MAKING:

Exercise judgment consistent with Burger's mission, vision, and code of business conduct regularly and continuously. Assume full responsibility for appropriate decisions, consequences, and results impacting Burger, its staff, vendors, and the quality of service within the assigned operational area.

COMMUNICATION:

The Electrical Engineer works with neighboring departments, senior management, purchasing, vendors, and occasionally clients or client representatives. Must possess good written and verbal communication skills.

EXPERIENCE:

1. Advanced working knowledge of electrical systems required
2. Ability to read and work from blueprints and other technical drawings
3. Experience working with AutoCAD and in a Marine environment preferred
4. Knowledge and experience of the Microsoft platform (Word, Excel, Outlook, etc.)
5. Knowledge of AutoCAD and other Engineering software programs



EDUCATION:

Bachelor's degree in electrical engineering required.

PHYSICAL REQUIREMENTS:

The Electrical Engineer works in both an office/desk setting, as well as on the production floor and on the vessel. Must be able to climb ladders and scaffolds, work in confined spaces, bend, squat, kneel, etc. Must be able to lift at least 30 pounds occasionally. Will work in an environment with noise, occasional heat, cold, and other factors.

GENERAL STATEMENT:

This description is a general statement of required primary duties and responsibilities performed regularly and continuously. It does not exclude other duties as assigned.