



Job Description

Job Title	Electrical Engineer	Job Category	Exempt
Experience Level	3-5 Years	Travel Required	Based on needs of business
Location	Sioux Falls, SD Office	Position Type	Full Time
Reports to	Director of Engineering	Title	Electrical Engineer

COMPANY OVERVIEW

Nelson Baker Biotech has quickly established a reputation as one of the most innovative renewable industry design builders in the upper Midwest. Nelson Baker Biotech combines engineering expertise, a solid business background and practical field experience to provide its clients with true, value-added advice and craftsmanship. Nelson Baker Biotech recognizes the renewable energy and products industry as an exciting new market that includes clients of all sizes with varied needs. NBB's experience and flexible approach allows it to work with all types of clients and project requirements. Our focus in the renewable industry includes Ethanol, BioChemicals, BioPlastics, and BioMass. Of course, as this industry continues its rapid transformation, our goal is to guide our clients to the most efficient and cost-effective solutions in these constantly evolving markets.

At Nelson Baker Biotech we offer an excellent benefit package to all of our regular full-time employees, including health, dental and vision insurance, 401(k) with company contributions, flexible spending accounts, paid time off, and the opportunity for personal and professional growth.

GENERAL DESCRIPTION

The primary responsibilities of this position are to estimate, create Request for Proposal to third party vendors; recommend 3rd party electrical engineering firms based on results of the RFP, specify and order electrical components and equipment, coordinate information between programmers and electrical contractors for I/O points, specify and order all instrumentation required for the project, possess the ability to understand facility power studies and VFD studies. Ensure adherence to plans and specifications. Candidate must be able to understand project and have the ability to support multiple projects and tasks in multiple locations, possess strong organizational and communication skills. Participate in the conceptual development of a construction project and oversee its organization, scheduling and implementation, to provide management oversight for all phases of the construction project; including coordinating workers, material, and equipment; ensuring that specifications are being followed; work is proceeding on schedule and within budget; and anticipate risks and costs related to the technical aspects of the project.

ESSENTIAL DUTIES/RESPONSIBILITIES

Writes and maintains the electrical scope of work documents for 3rd Party engineering firms and to define the engineering work products for clients and Project Managers.

Manage 3rd Party Electrical Engineers, Automation group and Electrical Subcontractor.

Specify and design electrical systems and components for facilities and related installations, and coordinate the efforts of electrical engineering performed by 3rd Party engineering consultants.

Estimate electrical portion of the work.

Update pricing on electrical equipment in database.

Create RFP (Request for Proposal) for the following:

- 3rd Party Electrical Engineer
- Automation Subcontractor
- Electrical Subcontractor

Manage subcontract.

Review documents generated by third party Electrical Engineer.

Provide motor list.

Assist in generating general arrangement drawing for electrical layout.

- Generate Instrument List
- Manage subcontractors



- Review documents generated by automation engineers
- Specify and order instrumentation
- Create bid specifications and manage subcontractors
- Assist Electrical subcontractor in creating Redline drawings of construction drawings to create as-built drawings

Specification of medium voltage and low voltage components and systems, development of installation drawings for the electrical systems, development of relay settings, development, and coordination of the project electrical systems, assisting with the development of the general arrangement and underground conduit system drawings, development of other documentation to allow the installation of the electrical system, review of startup and commissioning procedures for the electrical switchgear, oversight of 3rd Party engineering consultants performing detailed engineering work, and acting as the technical liaison with vendors, suppliers, engineering staff, and clients.

Participating in projects to update or modify existing facilities, including recommending new electrical systems, identifying bottlenecks or other issues regarding the electrical system, assisting the operating staff with troubleshooting of existing or new switchgear, motors and variable frequency drives, documenting changes to the electrical system to assist the operating staff, and coordination of design and installation work at existing facilities with other engineering disciplines and the operating staff.

Coordinates power requirements with local utilities and assists Project and Construction Managers with identifying the appropriate requirements and equipment for new or upgraded utility services.

Maintains master electrical design criteria, electrical equipment procurement specifications, and electrical installation specifications for control wiring.

Manage electrical scope of work documents from 3rd Party Electrical Engineering firm.

Create the instrumentation list to provide to the Automation Subcontractor and manage communications between customer, electrical subcontractor, and automation subcontractor.

Order and range instruments specified by the Chemical Engineers.

KNOWLEDGE BASED SKILLS

- Microsoft Office Products
- Adobe Acrobat Professional
- Document Tracking Database
- Excellent verbal, written and computer communication and technical skills
- Superior organizational skills and the ability to multi-task
- Ability to work independently with minimum instructions
- Ability to maintain accurate records