



**Title:** Senior Project Electrical Engineer (St. Louis)

**Description:** Job Title: Electrical Engineer

Reports To: Director of Electrical Engineering

### **QUALIFICATIONS, DUTIES AND RESPONSIBILITIES**

Graduate electrical engineer with degree and P.E. license in at least Missouri.

Must have good written and verbal communicative skills and be capable of working with minimal supervision. The candidate shall have a self-starter type of personality who presents maturely to clients, and is willing to think outside of the box. He/she must get along well with others and be capable of some mentoring of junior people.

Must have a minimum of ten to fifteen years of responsible design experience and supervision of others including designers, draftsmen and, if possible, other engineers.

Must have a good understanding of construction and experience in dealing with contractors and utility companies.

Must be able to generate electrical estimates.

Must be capable of designing and specifying, and of supervising those involved in design and specifying, electrical lighting and power systems for commercial, institutional and governmental projects.

Must have a good working knowledge of the NEC.

Must have the following, or most of the following, specific capabilities and experience:

- Design of lighting and lighting systems
- Design of dimming and dimming systems
- Design of medium voltage distribution, including switchgear and medium voltage motor starters..
- Knowledge of protective relaying application is a plus.
- Short circuit analysis and coordination using DAPPER. (This is mandatory)
- Design of lightning protection systems
- UPS system design.
- Design of motor circuits and feeders; motor control center layout and control wiring.
- Knowledge of VFD's.
- Be able to synthesize and analyze motor control ladder diagrams.
- Low voltage (under 600) design of distribution systems including feeder calculations, distribution and appliance panelboards, transformer sizing, volt drop calculations
- Fire alarm systems; nurse call systems; paging systems; telephone and data cabling systems; security systems.
- Emergency power generation including sizing generators from 10 kw up to 2,000 kw; selecting and sizing transfer switches.
- Knowledge of generator paralleling is desirable.
- Transient voltage surge protection.
- Have at least some exposure of seismic implications to electrical equipment and systems

### **OTHER**

Writes project electrical specifications.

Evaluate electrical systems; make recommendations and write reports.

Work with other disciplines to coordinate project, gather information, etc.

Corresponds with and coordinates with utility companies (power and telephone) for service.

Check shop drawings.

Respond to contractor's requests for information and questions.

Field check progress of electrical work.

Have knowledge of AIA forms for change order proposals, change orders, etc.**SUMMARY**

Researches, develops, designs, and tests electrical components, equipment, and systems by performing the following duties .

**Requirements/ EDUCATION and/or EXPERIENCE**

**Benefits:** Bachelor's degree from four-year college or university.

10 - 15 years experience in healthcare, higher education, commercial, or institutional projects.